PRIME

www.prime.sg

AUG - SEPT 2024



A Stone's Throw Away
Kidney Stones & CKD

Losing Your Crown
Common Hair Loss

The Ageing Spine
Lumbar Spondylosis

Fit for Life
Exercise for a Long & Healthy Life

My Hip Can't Hop
Enhanced Recovery After Surgery

Keeping Your Cool
Anger Management

Into the Fold
Origami

Social Dilemma
Social Media: The Good, the Bad & the Ugly

PRIME INTERVIEW
Dr Samintharaj Kumar

KEVIN COSTNER
LONE WOLF

Prime Essential Travel Tips • Desserts Origins

SIGN-UP TO

PRIME
Healthy Melody
HEALTH SEMINAR

Free Health Checks!

✓ Urine Test
✓ Postural Check
✓ Strength Test

First come first served basis only

HURRY! SCAN HERE

S$5/COPY

8 887457 169250

Holistic Way®

"Holistic Way keeps me healthy - inside out."





AWARDED Superbrands SINGAPORE'S CHOICE

MANUFACTURED IN GMP ACCREDITED FACILITY GMP

Holistic Way®

DEER PLACENTA 60's: $150.80

HOLISTIC WAY PREMIUM DEER PLACENTA contains extracts equivalent to 9000mg of deer placenta, grape seed extract and grape seed oil. Rich in protein, amino acids, hyaluronic acids, vitamins and minerals, deer placenta may deliver necessary nutrients required by the skin. Hyaluronic acid within may support healthy extracellular matrix with water locking capability, thus providing suppleness to our skin. Suitable for both men and women to support youthfulness, vitality and to enhance general well-being.

Yeo Yann Yann
Golden Horse Award Best Actress
Holistic Way Ambassador

JR Life Sciences

JR Life Sciences Pte Ltd
2 Bukit Batok Street 24, #08-20
Skytech, Singapore 659480
CARE LINE 6425 4100

holistic way
holisticwaysg 全益康
Holistic Way 豪利诗威

Purchase online at:
www.holisticway.com.sg

Available at these Pharmacy Chains:
guardian watsons Unity airport PHARMACY welcia BHG

Also available at these Major Department Stores:
BHG BHG Bishan 太平洋 METRO MUSTAFA SINGAPORE OG Skin Belief

BAUSCH+LOMB

Experience Eye Relief with Every...

blink®



PRESERVATIVE FREE
Intensive Tears
Immediate & Long-lasting Relief in Single-Use Vials[1,2,3]

Intensive Tears
Immediate & Long-lasting Relief for Dry Eyes[1,2,3]

Contacts
Moisturise the Eyes & Contact Lenses for Long-lasting Comfort[4,5]

Lens Drops
Keep Your Lens Fresh & Vision Clear[6]

References: 1. Wasmanski A et al. Cross-Over Evaluation PEG-400 0.4% & 0.25% artificial tears in mild dry eye patients. Poster ARVO, 2010. 2. Montani G. Intrasubject tear osmolarity changes with two different types of eye drops. OVS. 2013; 90(4): 372-377. 3. Blink Intensive Tears Product Insert Singapore. 2024. 4. Aragona P et al. Long term treatment with sodium hyaluronate-containing artificial tears reduces ocular surface damage in patients with dry eye. Br J Ophthalmol. 2002;86:181-184. 5. Blink Contacts Product Insert. 2024. 6. Blink-N-Clean Product Insert. 2024. BCLD.0004.SG.24



In this issue of Prime, we have a fantastic array of quality articles addressing different health topics lined up just for you. We have articles on Kidney Stones and Their Role in Chronic Kidney Disease; Common Hair Loss - Aetiology and Treatment Options; the Ageing Spine; the Importance of Physical Activity for a Long and Healthy Life; and a piece on the Enhanced Recovery After Surgery Approach.

Our Prime Interview Series makes a big comeback in this issue as we speak with Nuffield Holdings Founder, Chairman and Director Dr Samintharaj Kumar. A distinguished figure in the fields of dentistry and medicine in Singapore, Dr Kumar shares with us insights into his extensive dentistry and medical training, his career journey, his experiences with Nuffield, as well as his perspectives on health and wellness.

For this issue's cover story, we turn our attention to Kevin Costner, probably the most popular cowboy gunslinging hero in Hollywood. This cinematic Western idol has rejuvenated his career in recent years following the phenomenal success of *Yellowstone.* However, his efforts to further re-energise the Western genre somewhat stalled when the first instalment of his passion project *Horizon: An American Saga* flopped at the theatres. Can Costner get the rest of his epic series back on track? Read all about his career and more in this issue of Prime. Beyond the cover story, do also enjoy a wide range of interesting and informative lifestyle articles we have prepared for you!

Wang Wai Siong
Editor, Prime Magazine





Checking Your Choppers

When to Bring Your Children for a Dental Check-Up

Professional and specialty organisations, such as the Canadian Dental Association (CDA) and the American Academy of Paediatric Dentistry (AAPD), recommend that children visit the dentist by 12 months of age because this strategy establishes a preventive practice for the caregiver that has long-term benefits for the child. Moreover, it may ensure that children remain cavity-free as age is a significant determinant of Early Childhood Caris (ECC).

The consequences of ECC can be challenging for both the child and community. Short-term consequences include failure to thrive, oral infection and pain, altered nutritional status and cellulitis. Studies have shown that children with ECC have more lost school hours, while advanced forms of ECC often necessitate treatment under general anaesthesia. Long-term effects may include predisposition to caries in both the primary and permanent dentition, malocclusion, and the potential to affect speech and quality of life.

Importance of Dental Visit

According to the AAPD, it is very important to keep primary (or "baby") teeth in place until they are lost naturally. Primary teeth are important for many reasons, including:

- Helping children to chew properly to maintain good nutrition.
- Involvement in speech development.
- Helping to save space for permanent teeth.
- Promoting a healthy smile that helps children feel good about the way they look.



Many people do not understand about the importance of their children's baby teeth to lifelong oral health. There is a continuing need for more education to teach practices, such as proper techniques for brushing and flossing, that will ensure lifelong oral health. The first dentist visit is a great opportunity for parents to learn how best to care for their children's teeth.



Preparing Your Child for Dental Visits

If you begin taking your children to the dentist around the time the first tooth erupts, then they are probably too young to be nervous. However, if you wait until your child is older (e.g. 2 years old), then he or she may have some anxiety at the time of the first visit.

Some of the best ways to prepare your child for his or her first dental visit include:

- Give your child a sneak preview: Take your child with you for your next check-up. Let him or her see you have your teeth examined and cleaned.
- Teach your child about it: There are lots of books and online resources geared towards teaching children about dental health and dentist visits.
- Play around: Take turns role-playing being a dentist and patient with your child so that your child will be familiar with the feel of a dentist examination.
- Timing is everything: Plan ahead so that the dental visit is not rushed. And make sure your child is well-rested before the visit so that he or she feels relaxed and comfortable. PRIME



Dr Raymond Lim

★ 2016 - Winner Singapore Prestige Brand Award SPBA Promising Brand 2016
★ 2017 - Winner Singapore Prestige Brand Award SPBA Promising Brand 2017
★ 2018 - Winner Singapore Prestige Brand Award SPBA Promising Brand 2018
★ Overall Winner SPBA Promising Brand 2018, SPBA - Hall Of Fame

Dr Raymond Lim graduated from the National University of Singapore with a Bachelor of Dental Surgery (B.D.S.). In 2013, he founded the B9 Dental Centre, which has placed emphasis on acquiring latest medical technology, maintaining strict hygiene standards and providing quality services to the patients since the beginning. For the past four years, B9 Dental Centre has always been providing quality services at a price which is fair, reasonable and transparent. It has garnered recognition from the patients and in the industry through various awards, motivating Dr Lim and his team to work even harder. The team hopes to change the way people see and understand dental care, and to offer better service to the patients.

2016 The Prominent Brand
2015 The Entrepreneur of the Year (EYA) | EYA for Social Contribution
The Industry Star Winner | International Chinese Entrepreneur
Top 10 Special Achievement in Excellence in Patient Care
2014 Top 10 Special Achievement Awards in Dental Care

DOCSG Doc.sg now available on: Google play App Store

B9 CLEMENTI
449 Clementi Ave 3 #01-261
Singapore 120449
(Next to Clementi MRT)
TEL: 6777 8988

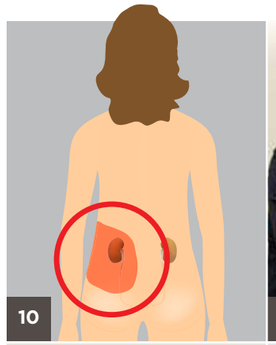
B9 HOUGANG
804 Hougang Central #01-126
Singapore 530804
(Next to Hougang MRT)
TEL: 6385 8988

B9 MARSILING
303 Woodlands Street 31 #01-203
Singapore 730303
(Next to Marsiling MRT)
TEL: 6763 8988

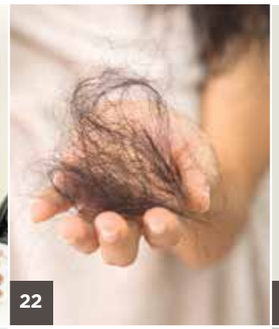
B9 TECK WHYE
141 Teck Whye Lane #01-273
Singapore 680141
TEL: 6766 8988

B9 TOA PAYOH
520 Lorong 6 Toa Payoh #01-64
Singapore 310520
(Next to Toa Payoh MRT)
TEL: 6251 8988

PRIME contents AUG - SEPT 2024

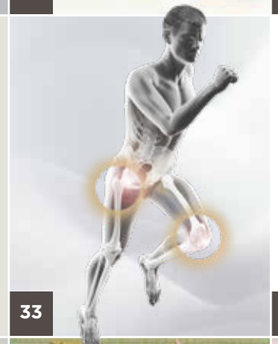

10


14

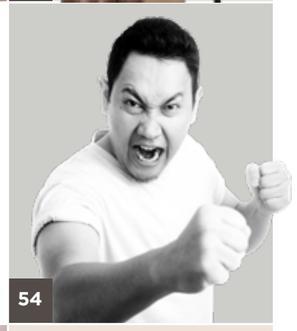

22


26

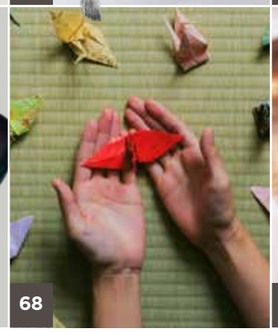

30


33

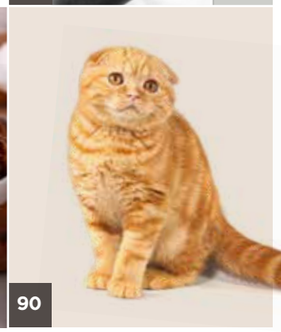

36


54


60


68


74


90

10 A Stone's Throw Away
Kidney Stones and Their Role in CKD

14 Prime Interview
Dr Samintharaj Kumar

22 Losing Your Crown
Common Hair Loss

26 The Ageing Spine
Understanding Lumbar Spondylosis

30 Fit for Life
Physical Activity and a Healthy Life

33 My Hip Can't Hop
Enhanced Recovery (ERAS)

36 Healthy Melody
A Prime Magazine Health Seminar

51 Motion Junction
Anatomy of a Knee Joint

54 Keeping Your Cool
Anger Management

60 Social Dilemma
Good, Bad and Ugly of Social Media

68 Into the Fold
Mathematics, Science and Art of Origami

74 Starting Sweetly
Origins of Famous Desserts

82 Prime Travel Tips Part 3
Travel Precautions

86 Bone Health Recipes
Delicious Recipes for Stronger Bones

90 Paw Patrol
Fun Facts About Felines and Canines

PRIME Magazine



FLIP IT! *Read It, Love It!*

It's Here! Now you can enjoy endless insightful articles of Prime Magazine through our flipbook.

SCAN HERE

or visit our flipbook link:
https://prime.sg/category/flip-magazines/

PUBLISHING
Jennie Lee
Publisher

ADMIN & ACCOUNTS
Ivan Chan
Admin Manager
Jeff Yim
Admin Executive

BUSINESS & MARKETING
Amanda Fu
Business Editor

EDITORIAL, ART & CREATIVES
Wang W S
Editor
Ramon Villaster
Senior Art Director
Marc Wong
Business Development Manager
Dinx Carin
Video Producer/Photographer

LATEST ISSUE CONTRIBUTORS
Dr Raymond Lim, Dr Nor Azhari Bin Mohd Zam, Dr Eileen Tan, Dr Fong Poh Ling, Dr Tang Hak Chiaw, Dr Jerry Chen

ADVISORY BOARDS

General Advisory Board
Dr Kanwaljit Soin, Soin Orthopaedic; Spine & Hand Surgery; Laurence Wee, Gerontological Society Singapore, Dr Mary Ann Tsao, Tsao Foundation; Dr Philbert SS Chin, RSVP Singapore; The Organisation of Senior Volunteers , A/Prof Thang Leng Leng, National University of Singapore; Chandra Mohan K Nair

Wealth & Finance Advisory Board
Leong Sze Hian, Society of Financial Service Professionals
BC Ghosh, CPPD Systems Associates

Health Advisory Board
Dr Chan KM, Chan KM Geriatric & Medical Clinic; Dr Chua Yang, A Clinic For Women; Justin Morais, Sports Acupuncture Centre; Dr Sitoh Yih Yiow, Age-Link Specialist Clinic for Older Persons; Prof Peter Lim, Andrology, Urology & Continence Centre; Dr Donald Poon, Dr Dyh Poon & Medical Oncology Clinic; Dr Michael CL Lim, Singapore Heart Stroke & Cancer Centre; Dr Mark Wong, Mark Wong Surgery; A/Prof Au Eong Kah Guan, International Eye Cataract Retina Centre; Prof Kua Ee Heok, National University of Singapore; Dr Bernard Lee MK, Singapore Paincare Center; Dr Koh Wei Howe, Arthritis & Rheumatism Medical Clinic

For Advertising & Subscription, Call: 6280-6690

prime@spring.com.sg **www.prime.sg**

Follow Us on Social Media: @PrimeMagSG | prime_sg | prime_mag | PRIME Magazine

Spring Publishing Pte Ltd
61 Upper Paya Lebar Rd, 05-02A
Tat Wan Building, Singapore 534816

The articles in this magazine are intended for information purposes only. They are not intended to replace the attention or advice of a physician or other healthcare professional, or even the actual policy contract in financial/insurance matters. Every care is taken in the production of this magazine but the publisher, editorial director and its employees assume no responsibility for any errors, inaccuracies or omissions arising thereof. Opinions expressed by contributors and advertisers are not necessarily those of the publisher and editorial director. The material in this magazine cannot be reproduced, whether in part or in whole, without the permission of the publisher.

OUR PARTNERS

All rights reserved. Copyright 2020 MCI (P) 002/01/2024 ISSN: 1793-3196



LEADING A HEALTHIER LIFESTYLE CAN HELP OFFSET GENETIC HEART DISEASE RISK

Cardiovascular disease contributes to mortality all over the world. The heart and vascular system are critical to health, making it a key area of health research. As such, researchers are interested in identifying who is most at risk for cardiovascular disease and what interventions are most helpful in modifying risk.

In a recent study published in *Nature Human Behaviour*, a group of researchers looked at polygenic risk scores and lifestyles amongst a Chinese population sample, and found that high genetic risk coupled with an unfavourable lifestyle was strongly associated with early-onset cardiovascular disease outcomes compared to late-onset outcomes.

The study further found that adopting a favourable lifestyle was associated with just over a 14-fold reduction in early-onset coronary artery disease for people with the highest level of genetic risk, as well as reductions in early-onset ischemic stroke and late-onset coronary artery disease. These findings point to the importance of lifestyle interventions, particularly for younger people with a higher genetic risk for cardiovascular disease.

The research was a prospective cohort study and specifically focused on Chinese adults. It utilised data from the China Kadoorie Biobank. The researchers included 96,400 adults in their analysis, and they excluded people with histories of heart attacks or strokes. They then divided the participants into two sets: A testing set of 72,149 participants and a training set of 24,251 individuals. The average age of participants was 53.

The researchers constructed polygenic risk scores, which evaluate genetic risk for three components of cardiovascular disease: coronary artery disease, ischemic stroke and intracerebral haemorrhage (brain bleeding). They did this using the training set of participants. Then, they used the testing set to look at the age of onset of cardiovascular disease outcomes, and the contributions of genetic risk and lifestyles.

To assess lifestyle, the team divided participants into three groups: favourable, intermediate and unfavourable. Individuals were considered to have an unfavourable lifestyle for components like currently smoking, not eating fruits or vegetables daily, low physical activity, and having a high or low body mass index. The researchers also divided participants into three groups based on genetic risks: low, intermediate or high. They categorised cardiovascular disease as either early onset, which was in men less than 55 or in women less than 65, or late-onset, which was in men aged 55 or older or in women aged 65 or older.

The study found that higher genetic risk was more strongly associated with early-onset cardiovascular disease outcomes rather than late-onset cardiovascular disease outcomes. Unfavourable lifestyles were also associated with a greater risk for all three cardiovascular disease outcomes in participants under 60 compared to older participants. Overall, participants with the highest genetic risk and unfavourable lifestyles had the greatest risk for cardiovascular disease outcomes.

The data showed that the high genetic risk group had a 14.7-fold risk reduction in incidences of early-onset coronary artery disease, a 2.5-fold risk reduction in early-onset ischemic stroke, and a 2.6-fold decrease in late-onset coronary artery disease when they changed to a favourable lifestyle from an unfavourable one.

However, this research has its limitations. It focused on a specific group of people, and it may not be possible to generalise the results to other populations. The researchers also had to rely on some self-reported data from participants, which does not always reflect people's actual health status and lifestyle, and can affect study results. The authors also noted that the incidence of cardiovascular disease in adults under 50 was low in the testing set. Because of this, they could not do a separate analysis in this group. They also did not conduct a sex-specific joint analysis of genetic risk and lifestyles, and there were also differences between the training and testing groups. The researchers acknowledged that there were possible lifestyle changes during the follow-up, which could have impacted the results.

On a positive note, while taking charge of heart health can be daunting, people can take practical steps in this area and see notable benefits. They can work with their doctors to figure out how to prioritise lifestyle changes and how to make these changes in realistic ways.



IRREGULAR SLEEP PATTERNS INCREASE TYPE 2 DIABETES RISK

According to a new UK Biobank study published in *Diabetes Care*, irregular sleep duration was associated with a higher risk for diabetes in middle-aged to older adults. The analysis of more than 84,000 participants with 7-day accelerometry data suggested that individuals with the most irregular sleep duration patterns had a 34% higher risk for diabetes compared with their peers who had more consistent sleep patterns.

For the study, the researchers analysed data from 84,421 UK Biobank participants who were free of diabetes when they provided accelerometer data in 2013-2015 and who were followed for a median of 7.5 years (622,080 person years). Participants had an average age of 62 years, 57% were women, 97% were white individuals, and 50% were employed in non-shift work jobs.

Sleep duration variability was quantified by the within-person standard deviation (SD) of 7-night accelerometer-measured sleep duration. Participants with higher sleep duration SD were younger and more likely to be women, shift workers, or current smokers; those who reported definite "evening" chronotype (natural preference of the body to sleep at a certain time); those having lower socioeconomic status, higher body mass index, and shorter mean sleep duration; and were less likely to be white individuals. In addition, a family history of diabetes and depression was more prevalent among these participants. A total of 2,058 incident diabetes cases occurred during follow-up.

After adjustment for age, sex and race, compared with a sleep duration SD ≤ 30 min, the hazard ratio (HR) was 1.15 for 31-45 min; 1.28 for 46-60 min, 1.54 for 61-90 min, and 1.59 for ≥ 91 min. After the initial adjustment, individuals with a sleep duration SD of > 60 vs ≤ 60 min had a 34% higher diabetes risk. However, further adjustment for lifestyle, comorbidities, environmental factors and adiposity attenuated the association – i.e., the HR comparing sleep duration SD of > 60 vs ≤ 60 min was 1.11.

Furthermore, the researchers also found that the association between sleep duration and diabetes was stronger among individuals with lower diabetes polygenic risk score. One possible explanation for this finding is that the impact of sleep irregularity on diabetes risk may be less noticeable in individuals with a high genetic predisposition, where genetic factors dominate. However, it was noted that these sleep-gene interaction effects were not consistently observed across different measures and gene-related variables. This is something that remains to be further studied. Nevertheless, the association between irregular sleep duration and increased diabetes risk was evident across all levels of diabetes polygenic risk scores.

The association was also stronger with longer sleep duration. The authors suggested that longer sleep duration might reduce daylight exposure, which could, in turn, give rise to circadian disruption. Overall, the study identified a modifiable lifestyle factor that can help lower the risk of developing Type 2 diabetes.

It should be noted that the study had several limitations. There was a time lag of a median of 5 years between sleep duration measurements and covariate assessments, which might bias lifestyle behaviours that may vary over time. In addition, a single 7-day sleep duration measurement may not capture long-term sleep patterns. A constrained random sampling approach was used to select participants, raising the potential of selection bias.

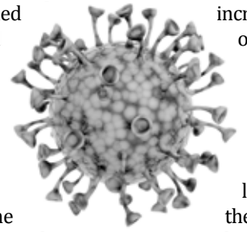


LONG-TERM IMMUNE CHANGES PERSIST IN UNVACCINATED COVID-19 PATIENTS

The COVID-19 pandemic was one of the most severe public health calamities in the last decade, causing global morbidity and mortality in the millions. Furthermore, emerging research indicates that the disease causes long-term sequelae lasting months after recovering from the initial SARS-CoV-2 infection. These post-COVID-19 symptoms, also called post-acute sequelae of COVID-19 (PASC) or long coronavirus disease (long COVID), impact various organ systems other than the pulmonary organs, even resulting in neurocognitive impairments, and cardiovascular and musculoskeletal symptoms.

Recent studies have focused on understanding long COVID's risk factors and mechanisms. Furthermore, while long-term sequelae have been observed in other viral infections as well, such as mumps, measles, influenza, and Epstein-Barr virus infections, PASC is unique in its ability to affect multiple organ systems, with wide-ranging symptoms such as fatigue, dyspnea, insomnia, 'brain fog', depression, heart palpitations, and kidney failure. In a recent study published in *Allergy,* a team of researchers in Austria conducted a longitudinal analysis among individuals who had not been vaccinated against COVID-19 to understand the changes in humoral and cellular immunity over ten months after the first SARS-CoV-2 infection.

For their study, the researchers conducted a longitudinal analysis among individuals who had not been vaccinated against SARS-CoV-2 to determine the changes in humoral and cellular immune parameters over ten months after the first infection. This study was a follow-up of their previous study, which examined immune parameter changes in unvaccinated individuals ten weeks after recovering from their first SARS-CoV-2 infection. The study included 106 participants with SARS-CoV-2 infection confirmed through a real-time polymerase chain reaction (rtPCR) or antibody-based test, and a matched control cohort of uninfected individuals. The researchers re-evaluated the immune status of the participants from the first study and determined the levels of antibodies generated against the SARS-CoV-2 spike, receptor binding domain, and nucleocapsid proteins. They also conducted neutralisation assays to determine the ability of these antibodies to inhibit the binding of the receptor binding domain with the angiotensin-converting enzyme-2 (ACE-2) receptor.



Based on the waning of antibodies against SARS-CoV-2, the participants were also categorised into groups, and the leukocyte subsets were analysed using multiparametric flow cytometry of whole blood samples. The researchers focused on understanding the subpopulations of B and T lymphocytes present in the blood. Additionally, multiplex technology using coated beads was used for serum analysis to determine the levels of cytokines such as interleukins (IL), as well as natural killer (NK) and T cell interferon-γ (IFN-γ) levels, and immunoglobulin (Ig) E levels.

The expression of ACE-2 receptors on recent thymic emigrants, such as T cells expressing cluster of differentiation (CD)3, CD62L, CD45RA, and CD31, and memory B cells expressing CD19, CD27, and IgD was also measured. All the immune parameter measurements taken ten weeks and ten months after the first infection for the COVID-19-positive cohort were compared with measurements taken at the same time points in the control cohort. The study found that the individuals who had recovered from COVID-19 had lower absolute counts of monocytes, granulocytes and lymphocytes as compared to the healthy control cohort. The circulating neutrophil levels in the infected individuals were also significantly lower than those in uninfected individuals. The expression levels of CD38 and human leukocyte antigen-DR isotype (HLA-DR) were higher in the infected individuals as compared to the healthy controls, indicating that the levels of CD8+ cytotoxic T cells were elevated after a SARS-CoV-2 infection. The cytotoxic T-cell levels remained elevated even after ten months in patients who had severe COVID-19, while for mild to moderate cases of COVID-19, the levels returned to baseline in ten months.

The researchers believe their results support theories proposed in other studies of extensive tissue damage due to severe COVID-19 or long-term persistence of antigens in the body and continued viral shedding. Alternate explanations also include persistent activation of T cells due to increased IL-4 and IL-17A levels in the serum, both of which were elevated in the serum samples of the SARS-CoV-2 infected cohort in the study. The individuals in the SARS-CoV-2 infected cohort also showed elevated levels of effector memory cells expressing CD3, CD4, and CD8, as well as plasmablast and translational B cells, but lower levels of regulatory T cells. Furthermore, the levels of antibodies against the SARS-CoV-2 nucleocapsid and spike proteins were found to decline with time, especially in younger patients. However, the changes in regulatory and effector T cells and recent thymic emigrants were independent of changes in antibody levels.

Overall, the findings showed that SARS-CoV-2 infections resulted in long-term changes in adaptive and innate immunity parameters and immune cells, and the changes were associated with cytokine profiles dominated by T helper cells 2. These findings further our understanding of the various mechanisms that contribute to long COVID.

A BREAKTHROUGH IN BUILDING HIV IMMUNITY - LLAMA NANOBODIES

A research team at Georgia State University has developed tiny, potent molecules derived from antibody genes from llama DNA that are capable of targeting hidden strains of HIV. The research used these llama-derived nanobodies to broadly neutralise numerous strains of HIV-1, the most common form of the virus. The new study has been published in the journal *Advanced Science.* Scientists in pursuit of effective HIV treatment and prevention have been working with animals in the camelid family, such as llamas, for about 15 years. This is because the shape and features of their antibodies make them nimbler and more effective at identifying and neutralising foreign objects, like the HIV virus. The new research presents a widely applicable method to enhance the performance of nanobodies. Nanobodies are engineered antibody fragments that are about one-tenth the size of a conventional antibody. They are derived from flexible, Y-shaped heavy chain-only antibodies - made up of two heavy chains - which are more effective at fighting certain viruses than conventional antibodies with light chains.



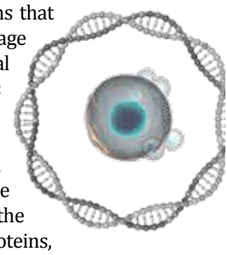
For the study, the researchers immunised llamas with a specially designed protein which results in the production of neutralising nanobodies. The team then identified nanobodies that can target vulnerable sites on the virus. When the team engineered the nanobodies into a triple tandem format by repeating short lengths of DNA, the resulting nanobodies demonstrated remarkable effectiveness, neutralising 96% of a diverse panel of HIV-1 strains.

Further analysis uncovered that these nanobodies mimic the recognition of the CD4 receptor, a key player in HIV infection. To enhance their potency, the nanobodies were fused with a broadly neutralising antibody (bNAb), resulting in a new antibody with unprecedented neutralising abilities close to 100%. The team believes that these nanobodies are the best and most potently neutralising antibodies to date, which is very promising for the future of HIV therapeutics and antibody research. Their future efforts will explore the possibility of combining llama nanobodies with other existing bNAbs to determine if some of these combinations can achieve 100% neutralisation to offer new treatment options in the fight against HIV.

STUDY IDENTIFIES NEW BIOMARKERS OF ALZHEIMER'S DISEASE

Recent advances in the study of proteomes (i.e., the entire range of proteins expressed by human cells and tissues) have opened new opportunities for identifying the biological markers of specific diseases or mental disorders. This could in turn inform the prevention, diagnosis and treatment of these medical conditions.

Researchers at Fudan University recently set out to examine proteins in the cerebrospinal fluid (CSF) of individuals with and without Alzheimer's disease (AD). The results of their analyses and experiments, outlined in a paper published in *Nature Human Behaviour,* unveiled specific CSF proteins that could serve as biomarkers of the disease. The paper emerged from the urgent need to enhance early diagnosis and prediction of AD. It was inspired by the growing understanding that AD has complex and multifaceted pathophysiology that current diagnostic methods fail to capture comprehensively. The primary objective of the study was to identify specific biomarkers in the human CSF that could help to accurately detect AD and predict its progression. To achieve this, the researchers analysed CSF samples extracted from patients diagnosed with AD, who were at different stages of the disease, as well as samples from cognitively normal individuals. The team utilised multiplex proteomics, a sophisticated method that allows for the simultaneous measurement of multiple proteins within a sample. This technique involves mass spectrometry, which is highly sensitive and capable of detecting even minute changes in protein levels. The analyses carried out by the team uncovered proteins that are linked to the core pathology of AD, while also identifying proteins that could indicate inflammation, neuronal damage and other disruptions in human physiological processes. By comparing the proteomic profiles of patients diagnosed with AD with those of control individuals, they uncovered new biomarkers that could help to diagnose and estimate the progression of AD. The most notable finding of the study is the identification of the novel biomarker CSF YWHAG. Among 6,361 proteins, CSF YWHAG performed best in diagnosing both biologically (AUC=0.969) and clinically (AUC=0.857) defined AD. Four (YWHAG, SMOC1, PIGR, and TMOD2) and five (ACHE, YWHAG, PCSK1, MMP10, and IRF1) protein panels greatly improved the accuracy to 0.987 and 0.975, respectively.



To assess the effectiveness of the biomarkers they identified, the researchers carried out a further follow-up study on an independent and external cohort of patients. The results of this study validated the strength of the biomarkers. In addition, using autopsy data, the authors showed that the biomarkers they identified could help to distinguish between samples extracted from deceased individuals with AD and those extracted from others who never received an AD diagnosis, outperforming existing biomarkers used to diagnose the disease.

Using sophisticated techniques for the analysis of proteomes, the researchers were able to reveal molecular changes associated with AD, which were found to be a highly promising diagnostic target. In the future, this study could inform the development of high-precision tools for accurately diagnosing AD, as well as targeted early therapeutic interventions. In their next studies, the team plans to replicate their study on external cohorts extracted by a wider range of diverse individuals. In addition, they hope to refine the biomarkers they identified and develop standardised diagnostic tests for these markers that could be performed in clinical settings. They will also explore the biological mechanisms underlying the identified proteomic changes to understand better how these biomarkers relate to disease progression. PRIME



A Stone's Throw Away

Kidney Stones and Their Role in Chronic Kidney Disease

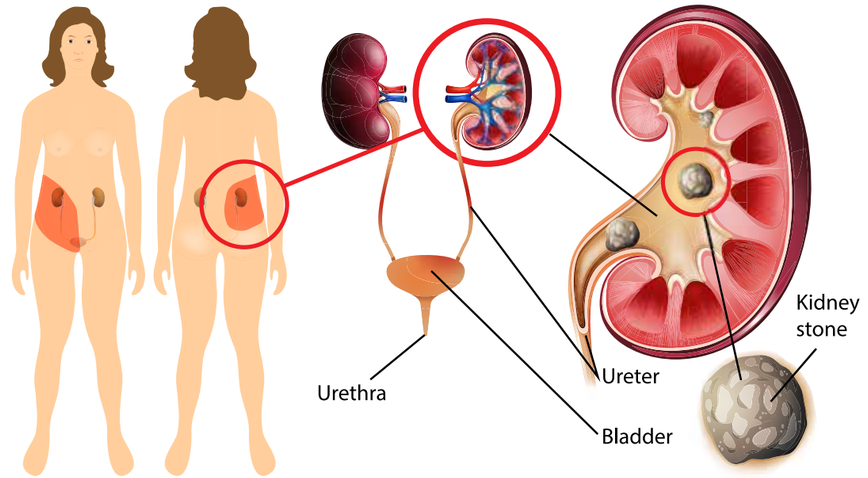
by Dr Nor Azhari Bin Mohd Zam

Kidney stones are solid masses formed in the kidney due to crystallization and aggregation of stone forming products within the urine. It is a common condition which is estimated to affect one in 10 adults worldwide. Chronic kidney disease (CKD) is a long-term condition where the kidneys are not functioning as well as they should. It is a progressive condition that can lead to end-stage kidney disease, which is a lethal condition without dialysis treatment or kidney transplant. While the main causes of CKD such as diabetes, hypertension and glomerulonephritis (inflammation of the kidney tissue) are well known, kidney stones are a significant but often overlooked contributor.

As a urologist with a subspecialty focus on kidney stones, I often treat patients with not only large or complex stones, but also preexisting CKD from chronic illnesses, and with anatomical or structural abnormalities. This article aims to increase awareness about complications arising from kidney stones that can adversely affect kidney function. It highlights the importance of early detection and management in order to preserve long-term kidney function.

TYPES OF KIDNEY STONES

In Singapore, the most common type of kidney stone is calcium oxalate stone, which is estimated to comprise about 70% of all cases. Other types of stones include calcium phosphate, uric acid, struvite (infection) and cysteine stones. Roughly 50% of patients will suffer from kidney stones again within the next 10 years of their life.



CAUSES

The causes of kidney stones are multifactorial. For some individuals, certain factors are more important than others. One of the main causes is having low volume of (concentrated) urine due to inadequate intake of fluids or excessive loss of fluids (e.g. through sweating or diarrhoea). Hence, those who do not drink enough (less than 2L of fluids a day) or those who work in a hot environment are at higher risk of forming kidney stones.

Another important reason why individuals develop kidney stones lies in what they eat. Individuals with a high intake of salt (sodium), and/or consume large amounts of food rich in oxalate content (such as chocolate, nuts and spinach) and animal protein like organ meats and seafood (which contains high amount of purine which is converted to uric acid) are at risk. Eating these foods leads to a high content of stone-forming products in the urine, which can precipitate into crystals when the concentration is high enough.

Other risk factors include having certain medical conditions such as obesity, hypercalcemia, hyperuricaemia (high amounts of calcium and uric acid in the blood) and recurrent urinary tract infection (UTI) or having structural abnormalities of the kidneys, such as pelviureteric junction obstruction, horseshoe kidney and medullary sponge kidney also predispose an individual to form kidney stones.

SYMPTOMS

When a stone is first formed within the kidney, it does not cause any symptoms. However, when the stone increases in size, migrates and drops to the ureter, it can cause intense pain. Many patients who have experienced this say that it is the worst kind of pain they have ever experienced. Typically, the pain starts in the flank (side of the upper abdomen) and can radiate down to the groin. Other times, kidney stones can cause blood in the urine (haematuria) or cause UTI to occur.

LONG-TERM KIDNEY DAMAGE AND CHRONIC KIDNEY DISEASE

Kidney stones cause long-term damage to the kidneys in several ways. Firstly, kidney stones can obstruct the flow of urine from the kidney to the ureter and bladder. This most commonly happens in the ureter, especially when the stone is more than 5mm in diameter. Larger stones may even cause blockage within the kidney. This leads to a condition known as hydroureter and hydronephrosis. This results in increased pressure and swelling within the kidney, which can damage the kidney tissue and may be permanent if not relieved in an expedient manner. Although rare, I have seen cases where patients with bilateral stone disease present with bilateral ureteric obstruction, leading to complete cessation of urine production (a condition known as anuria) and acute renal failure.

Secondly, kidney stones are a source of bacteria, which can predispose an individual to have UTI. Recurrent infections can lead to scarring of the kidney, which can cause lasting damage to kidney function.

Thirdly, direct injury to the kidney (mechanical damage due to direct contact with the inner lining of the kidney) may lead to inflammation, fibrosis and scarring of the kidney tissue, leading to functional loss over time. This typically occurs with large stones called staghorn stones that can fill up almost the

entire kidney. Furthermore, conditions which predispose individuals to kidney stones, such as hypercalciuria and hyperuricaemia, may also damage the tubules of the kidney, further affecting kidney function.

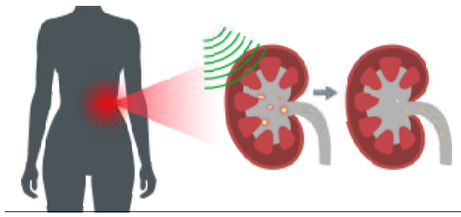
Lastly, individuals with kidney stones may have concurrent conditions such as obesity, diabetes and hypertension, all of which also contribute to the development of CKD.

TREATMENT

In the acute stage where the stone has migrated to the ureter and causes intense pain, pain relieving medications (oral or injection) are prescribed. The patient is also advised to drink lots of water to expel the stone. In addition, where suitable, I will prescribe medications to help in expelling the stone. This medication works by relaxing the ureter, thereby enlarging the ureter so that the stone may pass out through the urine.

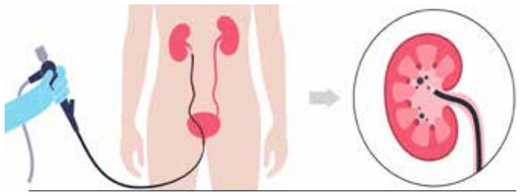
If the stone fails to pass or is deemed highly unlikely to pass at the outset, or if complications occur such as obstruction (hydronephrosis or hydroureter) and infection, the urologist may offer the following minimally invasive treatments to remove the stone.

- **Extra Corporeal Shockwave Lithotripsy (ESWL)**
  This is the least invasive procedure to remove kidney stones. Shockwaves are generated by a machine from outside the patient's body and targeted towards the stone. The shockwaves break the stone into smaller pieces, thereby allowing the stones to pass out through the urine more easily.



Shock waves breaks up stones into tiny pieces that can pass out of our body

- **Ureteroscopy (URS)**
  This is an endoscopic procedure where a thin tube with a camera is inserted into the patient's urine passage through the bladder and up the ureter to reach the stone. The stone is typically broken into smaller pieces with the use of a laser and can then be easily removed.

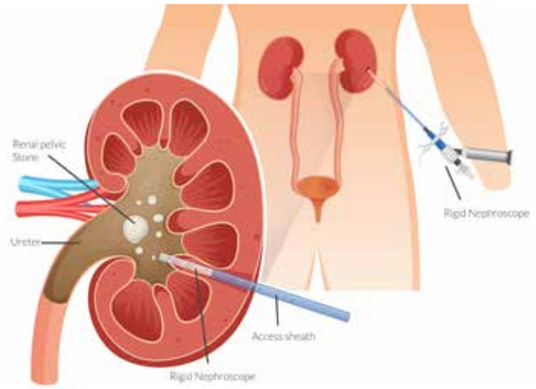


Ureteroscopy (URS) and retrograde intra-renal surgery (RIRS):

- **Renoscopy or Retrograde Intra-Renal Surgery (RIRS)**
  Similar to URS, but this time, a longer, flexible endoscope is inserted into the patient's urine passage, up the bladder and ureter to reach the stone within the kidney.

- **Percutaneous Nephrolithotomy (PCNL)**
  This is a surgical procedure for larger stones, usually 2cm or more in size. It involves getting direct access to the kidney through a small incision (1cm or less) in the flank or lower back. An endoscope is used to locate the stone within the kidney, which can then be fragmented into smaller pieces and removed.

  Recent advancements in laser technology and endoscopic equipment have led to the development of minimally invasive PCNL (mini PCNL) and tubeless PCNL which allows even smaller incisions (6mm or less) into the kidney. I offer these new techniques for suitable patients with large stones who are keen for a less invasive approach with faster recovery.



Percutaneous Nephrolithotomy (PCNL):

- **Laparoscopic Surgery Or Open Surgery**
  When the stone disease is associated with a structural abnormality or as part of treatment for another condition, laparoscopic surgery or even open surgery may be employed. However, such instances are not common.

CONSIDERATIONS FOR TREATMENT

There are two main considerations when deciding on the most appropriate treatment: the stone factor as well as the patient factor. The stone size, location, type (and therefore hardness) and presence of other stones are key considerations. With regards to the patient factor, preexisting medical conditions as well as the current kidney function, medications such as blood thinners, or existence of structural abnormalities are also taken into account.

A customised or tailored treatment plan with a urologist who is able to offer all treatment options will ensure the best outcome in terms of removing the stone completely with the minimum number of procedures and complications.

PREVENTING RECURRENCE

As part of a holistic approach to kidney stone treatment, I also recommend strategies to prevent further stone formation in the future. It is estimated that up to half of patients with kidney stones will have recurrent stones within the next 10 years of their life. A full metabolic evaluation, as well as dietary and lifestyle assessment, are part of a comprehensive treatment plan for my patients with kidney stones.



Asian Healthcare Specialists Clinic @ Novena



Asian Healthcare Specialists Clinic @ Alvernia

CONCLUSION

Kidney stones are a common condition that can sometimes affect the normal functioning of the kidneys and thereby lead to CKD. Having an awareness of this relationship ensures that individuals suffering from kidney stones are able to recognise signs of complications and seek treatment early, which will go a long way towards protecting their long-term kidney function. PRIME

AHS
Asian Healthcare Specialists





Dr Nor Azhari Bin Mohd Zam

Senior Consultant Urologist
Asian Healthcare Specialists
MBBS (NUS), MRCS (Edin.), MMed (Surgery, Singapore), FAMS (Urology)

/AsianHealthcareSpecialists
/@asianhealthcare
/@asianhealthcarespecialists8681
/company/asian-healthcare-specialist-pte-ltd

Dr Nor Azhari Bin Mohd Zam has more than 15 years experience in treating patients with kidney, bladder and prostate conditions, as well as those with men's health issues. He has extensive experience in treating patients with kidney stones, including those with complex kidney stones or high-risk medical conditions. His other subspecialty interest lies in Laparoscopic Surgery for both malignant and benign conditions of the urinary tract, such as kidney cancer and kidney cysts. Dr Azhari graduated from the National University of Singapore in 2001 and completed his urology training at Singapore General Hospital (SGH) in 2009, where he was awarded with the College of Surgeons Gold Medal and the Singapore Urological Association Book Prize during his exit exams. He further pursued fellowship training in Laparoscopic Surgery and Endourology in Sydney, Australia in 2010. Dr Azhari became a Consultant in SGH in 2011. From 2016 to 2023, he served as Senior Consultant, and Director of Endourology (Kidney Stone Service). Dr Azhari received his 20- year Long Service Award in SGH in 2023, before moving to private practice with Asian Healthcare Specialists.

CLINIC WEBSITE

SCAN HERE

Asian Healthcare Specialists (Novena)
Mount Elizabeth Novena Specialist Centre
38 Irrawaddy Road #08-41
Singapore 329563
+65 6334 1486

Asian Healthcare Specialists (Alvernia)
820 Thomson Road Medical Centre
Block A #05-03
Singapore 574623
+65 6252 4015

A Reason to Smile

Conversation with a CEO: Nuffield Holdings Founder, Chairman and Director Dr Samintharaj Kumar

A distinguished figure in the fields of dentistry and medicine in Singapore, Dr Samintharaj Kumar has contributed significantly to local healthcare through his multifaceted expertise and dedication to holistic patient care. With a foundational degree in Dentistry and an MBBS from London, his academic and professional journey is one that has been marked by excellence as well as an unwavering commitment to provide the best medical care to his patients.

As the Founder, Chairman and Director of Nuffield Holdings, Dr Kumar has helped to revolutionise healthcare delivery in Singapore through a multi-disciplinary approach encompassing Dentistry, Medicine and Surgical Specialties in the field of ENT (Ear, Nose & Throat), and Wellness. Nuffield Holdings, under his visionary leadership, offers a comprehensive suite of patient care over a number of different disciplines. For this Prime Interview, Dr Kumar shares with us insights into his extensive training, his career journey, his experiences with Nuffield, as well as his perspectives on health and wellness.





Good morning, Dr Kumar. Thank you for taking time out from your busy schedule to talk to us. Let's get straight to the interview, shall we? Can you share with us the journey that took you into dentistry? What then led you to pursue further medical training?

Dr Samintharaj Kumar: Good morning to you as well! It's a pleasure to speak with Prime. Now, onto your question. When I was 13 years old, I once happened to observe children with unique and curious head shapes at KK (Kandang Kerbau) Hospital while I was in the hospital lift. This incident fascinated me and sparked a deep interest in pursuing a career where I could help to treat such patients. Craniofacial surgery would become my initial focus in healthcare.

My journey to becoming a dentist was challenging. Initially, I didn't get the grades to enter medical school and my attempts to interview for medical school in the UK were unsuccessful. Looking back, I realised that my playful attitude in school and lack of clear direction contributed to these setbacks. But I persevered as I had wanted to become a doctor since young.

While I didn't get into medical school, I did secure a place in NUS's (National University of Singapore) dental school. Initially, I had concerns about my manual dexterity, but I soon realised that my hand-to-eye coordination was pretty good and I am very well-suited to being a dentist.

In my third year of dental school, I met Professor Malcolm Harris, a maxillofacial surgeon from England. His astuteness in diagnosing patients and his career path greatly inspired me. His inspirative nature led me to pursue medicine as a second degree, with the goal of a career in oral and maxillofacial surgery, and a later subspecialty in craniofacial and cleft surgery.

What areas of dentistry and medicine are you most passionate about?

SK: While I used to be incredibly passionate about craniofacial surgery, my interests now lie in dental implantology, dento-facial aesthetics, TMJ (temporomandibular joint) pain management, and holistic dentistry. These areas allow me to combine my skills and knowledge from both dentistry and medicine to make a significant impact on patients' lives. The intricate nature of these procedures fascinates me as they require a deep understanding of both dental and medical principles to achieve optimal outcomes.

My medical training and dental background constantly inform and influence each other, enriching my approach to patient care. My dental expertise provides a strong foundation in oral health and maxillofacial anatomy, which is crucial for performing complex surgeries. Conversely, my medical training broadens my perspective on systemic health, enabling me to consider the overall well-being of my patients when planning and executing dental treatments.

What are some memorable cases you had handled?

SK: One of the most memorable cases in my career involved a 45-year-old female patient who had suffered from severe TMJ pain for many years. This condition had significantly affected her quality of life, causing chronic pain, difficulty in eating, and severe headaches. She had seen numerous specialists over the years, but sadly found little relief.

When she came to my practice, I conducted a thorough assessment, taking into account her medical history, previous treatments and current symptoms. She was also a renal transplant recipient with a history of vitamin D deficiency and osteoporosis, and was on multiple medications with fluid restrictions. Additionally, she had severe allergies to materials used in traditional dental treatments, such as root canal treated teeth and metal fillings. Given her complex medical background and dental needs, I developed a comprehensive treatment plan that included the use of ceramic dental implants to address her allergies. She required a full upper dental implant-supported bridge. The challenge was further compounded by the need to restore her facial aesthetics, as she had lost a significant amount of bone in the anterior jaw, making her smile difficult to recreate.

The treatment plan began with initial dental adjustments to prepare for the implant placement. This included removing any remaining metal fillings and root canal treated teeth to eliminate allergens, and reduce inflammation. We then moved on to the implant placement phase, using advanced 3D imaging technology to meticulously plan the positioning of the ceramic dental implants. These implants were chosen specifically for their biocompatibility, reducing the risk of allergic reactions.

Due to the significant bone loss in her anterior jaw, bone grafting procedures were performed to rebuild the bone structure. This step was crucial to provide a solid foundation for the implants and to restore her facial aesthetics. Remarkably, the upper implants were placed on the same day, giving her the benefit of the All-on-4/Teeth-in-a-Day procedure. This immediate placement allowed her to leave the clinic with a fully functional and aesthetically pleasing set of teeth, significantly enhancing her quality of life.

Alongside the dental treatments, a customised oral appliance was created to relieve the pressure on her TMJ, combined with physiotherapy sessions to alleviate her chronic pain.

> As the Founder, Chairman and Director of Nuffield Holdings, Dr Kumar has helped to revolutionise healthcare delivery in Singapore through a multi-disciplinary approach encompassing Dentistry, Medicine and Surgical Specialties in the field of ENT (Ear, Nose & Throat), Plastic Surgery, and Wellness. Nuffield Holdings, under his visionary leadership, offers a comprehensive suite of patient care over a number of different disciplines.

Over several months, we closely monitored her progress, adjusting the treatment plan as needed. This included addressing her fluid restrictions and managing her multiple medications to ensure her overall health was maintained throughout the process.

Despite the complexities, the treatment was a success. Gradually, her TMJ pain diminished, and she regained the ability to eat and speak without discomfort. The full upper dental implant-supported bridge not only restored her smile but also significantly improved her facial aesthetics, giving her confidence and improving her quality of life.





This case stands out to me because it exemplifies the importance of a holistic and interdisciplinary approach to patient care. By leveraging my expertise in both dentistry and medicine, I was able to provide a treatment plan that addressed her multiple health concerns comprehensively.

Let's switch topics and talk about Nuffield Holdings. What motivated you to start Nuffield Holdings? What then motivated you to diversify vertically to other branches of healthcare?

SK: I started Nuffield Holdings from a desire to create a healthcare organisation that combines both medical and dental expertise to provide comprehensive patient care. My background in both fields allowed me to understand the need for an integrated approach, ensuring patients receive holistic treatments that address all aspects of their health.

The decision to vertically diversify into other branches of healthcare was driven by the aim to offer a broader range of services, enhancing the continuity of care and meeting diverse patient needs within a single organisation. My vision for Nuffield is to continue expanding our services while maintaining the highest standards of care, ultimately becoming a leading healthcare provider known for innovation, excellence and patient-centred care.

You spoke about expanding your services. Are there any new areas Nuffield is moving into?

SK: In addition to our core medical and dental services, we have expanded our offerings to include Nuffield Counselling, which provides mental health support and therapy. This service is crucial in addressing the mental and emotional well-being of our patients, recognising that mental health is an integral part of overall health. Our counsellors work closely with patients to help them navigate life's challenges, offering support for issues such as stress, anxiety and depression.

We have also introduced Nuffield Nutrition, which focuses on functional nutrition. This service emphasises the use of food as medicine, creating personalised nutrition plans that address specific health concerns and promote optimal wellness. By understanding the unique nutritional needs of each patient, we can provide tailored advice and interventions that support their overall health and well-being.

Furthermore, we have added Nuffield Ayurvedic Wellness to our portfolio. Nuffield Ayurvedic Wellness offers traditional Indian medicine practices akin to TCM (Traditional Chinese Medicine). This holistic approach includes treatments and therapies that balance the body, mind and spirit, promoting natural healing and preventive care. Our ayurvedic wellness services offer alternative and complementary treatments that enhance the overall healthcare experience for our patients.

One thing that people commonly neglect is obstructive sleep apnea. This condition can lead to various health issues, including cardiovascular problems, daytime fatigue and impaired cognitive function. Many people are unaware of the signs and symptoms of sleep apnea, and the importance of seeking treatment. We have introduced Nuffield ENT and Nuffield Sleep to address these issues, providing specialised care to diagnose and treat sleep apnea effectively.

Last but not least, we are also currently working on launching our own app, which we believe is important for the benefit of our patients. The app will facilitate better patient engagement, streamline appointment scheduling, and provide easy access to medical records and health information. It will also enable telemedicine consultations, making healthcare more accessible and convenient for our patients.

What are some of the challenges and successes you had while establishing Nuffield Holdings?

SK: Establishing Nuffield Holdings has been a journey filled with challenges and successes. One significant challenge was navigating the regulatory environment and ensuring compliance with all healthcare standards. Additionally, building a cohesive team of professionals from diverse backgrounds required careful management and fostering a culture of collaboration.

In terms of successes, our successful integration of advanced technologies into our practices is one key milestone. It significantly improved patient outcomes and satisfaction. Expanding our services to include a wider range of healthcare specialties is another major milestone. It allowed us to provide comprehensive care under one roof. I am particularly proud of growing Nuffield as an SME, and diversifying it within the healthcare and wellness space.



Let's move on to personal health and wellness. How do you prioritise work-life balance in your personal life?

SK: Prioritising self-care and maintaining a good work-life balance is crucial, especially in a demanding field like healthcare. I have found that setting clear boundaries between work and personal time is essential. I make a conscious effort to leave work at the office, and focus on my family and personal interests when I'm at home. This separation helps me to recharge and return to work with renewed energy and focus.

> One of the activities that brings me immense joy and relaxation is singing. Whether it's humming a tune while working or participating in more formal singing sessions, music has always been a wonderful outlet for me. It allows me to express myself creatively and serves as a great stress reliever.

I also enjoy reading about gadgetry, space exploration and aliens. These interests not only provide a mental escape from the everyday demands of work, but also inspire a sense of wonder and curiosity. Staying updated on the latest technological advancements and scientific discoveries keeps my mind engaged and fuels my passion for continuous learning.

Spending quality time with family and friends is another key component of my work-life balance. Sharing moments with loved ones, enjoying meals together, or simply having a good conversation helps me to stay grounded. It reminds me of the importance of personal connections.

Do you set any health and wellness goals for yourself?

SK: Yes, I do set certain health and wellness goals for myself, and I make a concerted effort to integrate them into my daily routine. One of my primary health goals is to maintain a regular exercise regimen. I try to engage in physical activity at least three times a week, which includes a mix of cardiovascular exercises and strength training. Starting my day with a workout not only energises me but also sets a positive tone for the rest of the day. It helps me to stay focused, reduces stress, and improves my overall physical health.

Another key wellness goal I have is to ensure that I get adequate sleep. I aim for at least six hours of quality sleep each night. Good sleep is essential for recovery, mental clarity, and maintaining a strong immune system. I follow a consistent sleep schedule and create a restful environment to promote better sleep hygiene.

Lastly, I prioritise spending quality time with my family and engaging in hobbies that bring me joy. These contribute to my overall happiness and help me to maintain a healthy work-life balance. This, in turn, enables me to perform at my best both personally and professionally, ensuring that I can provide the highest quality of care to my patients.

What are some core life principles you adhere to?

SK: I believe in integrity, compassion, continuous learning, resilience, excellence, balance, and empowerment. Integrity is at the heart of everything I do. I ensure honesty and transparency in all my dealings, which builds trust and credibility. Compassion is fundamental in my personal and professional life. It allows me to empathise with, and support my patients and loved ones.

Lifelong learning is crucial as the fields of dentistry and medicine are constantly evolving. Staying updated with the latest advancements helps me to improve my practice and provide the highest quality of care. On the other hand, resilience has enabled me to overcome various challenges, keeping me focused on my goals and maintaining a positive attitude during difficult times.

I strive for excellence in all aspects of my life, continually seeking improvements to provide exceptional care and achieve my highest potential. Maintaining a healthy work-life balance is essential for overall well-being. It allows me to be productive, fulfilled and happy. Lastly, I believe in





empowering others by providing the tools, knowledge and support they need to make informed decisions and achieve their goals. These principles shape who I am and guide my journey. They help me to make a positive difference in the lives of those I encounter.

We are coming to the end of our interview. Last couple of questions. First off, what advice would you give to aspiring healthcare professionals considering a career in dentistry/medicine?

SK: My first piece of advice would be to cultivate a genuine passion for helping others. This field demands a significant commitment of time and energy, and having a deep-seated desire to improve patients' lives will help you to stay motivated through the challenges.

It's essential to approach your education with curiosity and an open mind. Both dentistry and medicine are rapidly evolving fields, with constant advancements and new technologies. Stay updated with the latest research, be willing to learn continuously, and never stop seeking knowledge. Embrace lifelong learning as a core part of your professional journey.

You also need to develop strong communication skills. The ability to listen to your patients, understand their concerns, and explain treatment options clearly is crucial. Building trust and rapport with your patients is just as important as your technical skills. Empathy and compassion are key components of patient care.

For those interested in pursuing dual qualifications in both dentistry and medicine, be prepared for a demanding but rewarding path. Balancing the requirements of both fields requires dedication, resilience and effective time management. However, the integration of knowledge from both disciplines will enable you to provide comprehensive and holistic care, making a significant impact on your patients' overall health.

Lastly and very importantly, always maintain a good work-life balance. While dedication to your career is important, it's equally crucial to take care of your own health and well-being. A balanced lifestyle will help you to stay focused, reduce burnout, and ensure that you can provide the best care for your patients.

Parting advice for Prime readers?

SK: Prioritise balance in all aspects of your life. Strive for a healthy work-life balance, and ensure that you allocate time for your career, family and personal interests. Invest in your health by adopting regular exercise, a balanced diet and adequate sleep. And remember that mental health is just as important as physical health; seek support when needed and practise mindfulness to manage stress. You should also continuously pursue personal and professional growth through lifelong learning and adaptability. Cherish your relationships and make time for the people who matter the most to you. By maintaining balance and focusing on overall well-being, you can lead a fulfilling and meaningful life. PRIME

Losing Your Crown

Common Hair Loss - Aetiology and Treatment Options

Dr Eileen Tan, Dermatologist



Hair loss affects both the young and old. There are myriad potential etiologic factors that can culminate in clinical hair loss or alopecia, including endocrine abnormalities, genetic predisposition, systemic illness, drugs, psychological abnormalities, diet, trauma, infections, autoimmunity, and structural hair defects. Because of the multiplicity of factors, evaluation of a patient by history, physical examination and laboratory work-up must be thorough.

ANDROGENETIC ALOPECIA

Androgenetic alopecia (male/female pattern hair loss) is the most common cause of hair loss worldwide. A genetic predisposition is usually present. The hairs progressively miniaturise under the influence of dihydrotestosterone. Gradual patterned hair loss is the classical clinical presentation. There exist accepted classifications of androgenetic alopecia. The Norwood-Hamilton classification arbitrarily divides the severity of hair loss into seven stages. Women typically present with diffuse hair thinning, where there is diffuse hair thinning on the central portion of the scalp with a progressive increase in parting width.

TELOGEN EFFLUVIUM

Telogen effluvium occurs when a large amount of hair enters into telogen phase prematurely and sheds in 2-4 months after the offending insult. The list of causative triggers is extensive, including high fever, pregnancy, medications, malnutrition, severe infections, endocrine diseases, etc. Common causative medications include retinoid, anticoagulant, anticonvulsant, beta blocker, etc. A sudden onset of diffuse hair shedding is the most common clinical presentation. Patients often notice clumps of hair shedding when shampooing or hair brushing. History and physical examination are crucial to indicate the underlying aetiology. Treatment of telogen effluvium is usually self-limiting and involves eliminating the underlying cause.



ALOPECIA AREATA

Alopecia areata is classified as an autoimmune hair loss condition. It often presents as patchy alopecia, but diffuse form can be confused with male/female pattern hair loss. Patients usually complain of sudden onset of hair loss. Hair-pull test is positive during the active phase. Loss of face/body hairs and nail pitting may occur. Treatment depends on the severity, they include intralesional scalp triamcinolone acetonide, topical medications, phototherapy and immunotherapy.

ANAGEN EFFLUVIUM

In anagen effluvium, the hair cycle is abruptly interrupted. This results in rapid, diffuse hair loss. The hair shafts appear to be narrow and easily fractured. A common causative trigger is the usage of chemotherapy drugs, levodopa, allopurinol, tamoxifen, arsenic, bromocriptine, etc.

TRICHOTILLOMANIA

Trichotillomania is self-inflicted hair pulling which can lead to localised or diffuse hair loss. It has a higher incidence during childhood and adolescence. A combination of medications and cognitive behavioural therapy may prove to be more effective.

TREATMENT OF HAIR LOSS

Treatment options are based on a patient's diagnosis and treatment preference. An individualised approach and in-depth discussion with the patient are important to achieve the desired treatment goals.

MINOXIDIL

Minoxidil was used during the 1970s as an antihypertensive medication. It is a biologic response modifier that is thought to promote hair growth through vasodilation and stimulation of hair follicle growth. In androgenetic alopecia, topical minoxidil helps to reduce hair shedding and in some cases, reverse miniaturisation of hair follicles. This translates to hair thickening. 2% minoxidil solution was approved by the US FDA (Food and Drug Administration) in 1988 for the treatment of androgenetic alopecia in men and subsequently approved as an over-the-counter medication for use in men and women in 1996.

In a 2003 one-year observational study with minoxidil 5% solution in Germany, it was found that for twice daily application of 1ml of minoxidil 5% solution in 984 male patients with androgenetic alopecia, two-thirds of participants saw mild-moderate hair regrowth. And in a 2004 randomised, placebo-controlled trial of 5% and 2% topical minoxidil solution in the treatment of female pattern hair loss, it was found that minoxidil 5% formulation was more effective than minoxidil 2%. However, side effects of minoxidil 5% may not be well tolerated as compared to 2%. Topical minoxidil (2% and 5%) have been approved for the treatment of androgenetic alopecia in both genders. It takes between 6-12 months to observe clinical improvement. Treatment needs to be maintained long term because hair loss will recur when minoxidil is discontinued. Side effects of minoxidil are uncommon, but they include headache, palpitation, scalp irritant contact dermatitis and hypertrichosis

Besides androgenetic alopecia, topical minoxidil can be used to treat various other hair loss conditions like alopecia areata, telogen effluvium, anagen effluvium and trichotillomania.



FINASTERIDE



Finasteride 1mg is an FDA-approved oral medication for the treatment of androgenetic alopecia in men. Finasteride competitively inhibits enzyme 5-alpha reductase type II, which in turn inhibits the conversion of testosterone to dihydrotestosterone (DHT). DHT is the potent androgen responsible for hair follicular miniaturisation and transformation of terminal hairs into vellus hairs.

In clinical studies, finasteride 1mg was shown to slow down the rate of hair shedding and possibly stimulate regrowth in mild to moderate hair loss. If discontinued, the effects of the drug wear off within three months and the previous pattern of hair loss resumes.

Finasteride is generally well tolerated. Rare complications (sexual) may include erectile dysfunction and decreased libido. Post-finasteride syndrome was described in recent years whereby its side effects may continue despite discontinuation of medication. The incidence was reported to be higher in patients using higher doses of finasteride.

LOW LEVEL LASER LIGHT THERAPY (LLLT)

LLLT is FDA-approved to treat alopecia. It is believed to stimulate mitochondrial activity and activate follicular cellular metabolism. Clinical observations have indicated that LLLT administered twice to thrice a week shows clinical benefits in terms of hair shedding and an increase in hair shaft diameter. Multiple treatment sessions are necessary. LLLT is an alternative treatment option for individuals seeking a non-drug approach and for those who do not want to undergo hair transplant surgery.

SURGICAL HAIR RESTORATION

Individuals with sufficient donor hair from the back of the scalp to transplant to the balding area are suitable for hair transplant surgery. Hair transplantation is most commonly used to treat androgenetic alopecia. It can also be used to restore traumatic scars, eyebrows, moustache, sideburn and pubic region, etc.

Hair transplant surgery techniques have improved over the past 20 years. During modern follicular unit transplantation, follicular units (small naturally occurring hair bundles) are surgically removed from the scalp donor sites to the desired recipient anatomic sites. It is performed as an outpatient treatment in most cases. There is minimal discomfort, and patients will be able to shower and shampoo the next day. In general, the patient can return to work within three to five days.



There are two donor harvesting techniques. One is where a linear strip of hair is surgically removed and the follicular units individually dissected. The wound is closed with stitches. The hair from above the incision covers the area so that it is not visible. Sutures are removed 12-14 days postoperatively. Another technique is follicular unit extraction whereby follicular units are individually extracted from the patient donor site. The tiny excisions are left to heal without sutures. The depth and angle of insertions of follicular hair grafts are a critical aspect of hair transplantation to ensure that the results look perfectly natural. Proper placement depends on the expertise of the hair transplant surgeon. PRIME



Dr Eileen Tan
Dermatologist
Eileen Tan Skin Clinic & Associates

Dr Eileen Tan is a dermatologist at Eileen Tan Skin Clinic & Associates. Her wealth of experience in hair restoration has been accrued since 2002. She has vast experience in both medical and surgical hair restoration fields. Dr Tan has earned international recognition in publications, including peer reviewed journals, and has published a textbook titled A Guide To Healthy Scalp and Hair. She was the Chairperson of the Hair Transplant Workshop in the quadrennial World Congress of Dermatology - Milan 2019. Dr Tan is a Diplomate member of the American Board of Hair Restoration Surgery and a Fellow member of the International Surgery of Hair Restoration Society.

Eileen TAN
Skin Clinic & Associates
陈爱霖皮肤专科. 激光美容
及植发医疗诊所

CLINIC WEBSITE

SCAN HERE

EILEEN TAN SKIN CLINIC & ASSOCIATES

Mount Elizabeth Novena Hospital
38 Irrawaddy Road #05-38
Singapore 329563
+65 6223 8898

Mount Elizabeth Medical Centre
3 Mount Elizabeth #12-02
Singapore 228510
+65 6733 8898

www.eileentanskin.com

Xepa sp

Experience
reduced hair loss
and/or new hair growth
after 2 months*

Bye to hair loss, Hello to confidence!

SCIENTIFICALLY PROVEN
$C_9H_{15}N_5O$ 5%

Vello-5
Topical Solution
Minoxidil 5% w/v
STIMULATE HAIR GROWTH
PREVENT ADDITIONAL HAIR LOSS
60ml

*Individual results may vary

Reference: Jan Rundegren (2004), 'Rapid onset of action of minoxidil 5% topical solution in a 4-month German observational study on both patients and physicians', Journal of The American Academy of Dermatology, vol. 50, no. 3, https://doi.org/10.1016/j.jaad.2003.10.290

SG.DERM.2024.IL004

The Ageing Spine

Understanding More About Lumbar Spondylosis



Growing older is a natural part of life. In Singapore, we have a rapidly ageing population, where 17.3% of our population are over 65 years old and there is a decline in the old-age support ratio to 3.7 as of 2023. Taken together, this simply means that as Singapore continues to have a larger greying population, we also have fewer younger people to rely on for support in our golden years. Thus, it is important for us to remain healthy and age gracefully.

Many physical changes occur when we progress to middle and old age. This is due to the accumulation of loading and stress on our joints, ligaments and muscles. In our joints, there is a gradual loss of the smooth cartilaginous surface, while the ligaments start to lose elasticity, and our muscles gradually lose strength and volume. With these degenerative changes, one starts to experience stiffness, clicking in joints, a gradual loss of flexibility, and a decrease in muscular strength. We may experience fatigue and pain, with a loss of endurance strength and an inability to partake in prolonged activities.

LUMBAR SPONDYLOSIS

Lower back pain is one of the common complaints in the older population, often due to lumbar spondylosis. Other causes can include abnormal spinal alignment or poor sagittal balance. However, there are certain types of back pain that require greater attention. They include:

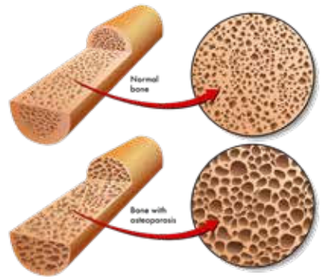
- Persistent pain with increasing frequency or intensity.
- Pain that disturbs sleep and/or is accompanied by other symptoms like loss of appetite, loss of weight or fever.
- Associated history of injury/ trauma.
- Neurological symptoms like numbness, weakness, pins and needles, or electric/burning sensations.
- Any bladder and bowel disturbances.

So, what exactly is lumbar spondylosis? Simply put, it is a degeneration or ageing of the lumbar spine. Let us now go into some details on the physiology of this condition. The ageing process occurs in all components of the spine: vertebrae, discs, ligaments and paraspinal muscles. However, disc degeneration and reduction in bone mass of the vertebra are two independent processes.

Disc degeneration occurs from the first decade and is a result of the loss of nutrient supply from chronic inflammation, leading to the degradation of the disc matrix and loss of its ability to provide cushioning. This change in loading biomechanics causes more stress on the end plates and joints as the loading forces shift backward.

Hence, we start to see joint wear and tear as well as bony changes along the end plates of the vertebrae. This then becomes a vicious cycle where the shift of loading forces backwards results in more changes at the posterior part of the disc. This can lead to tears of the annulus and a prolapsed disc.

In the ligaments, these tissues lose elasticity, and undergo remodeling and thickening, resulting in abnormal translation of the vertebra (spondylolisthesis) and narrowing of the



Osteoporosis can be primary or secondary, where secondary osteoporosis is due to other underlying causes like chronic renal disease or renal failure, long term steroid usage, or other metabolic disorders. Primary osteoporosis can be either post-menopausal (in women) or senile (in men). Treatment of osteoporosis is recommended to reduce risk of fragility fractures and the associated complications of an osteoporotic fracture. Treatment consists of dietary measures (adequate calcium and vitamin D intake), weight-bearing exercise for stimulation of bone growth, and medications.



spinal canal. The facet joints will initially be inflamed, become unstable, and then finally increase in size in response to the increased shear forces from the disc degeneration.

As for degenerative changes in the bone and muscles, they generally take place much later, from the 40s to 50s onwards. Gradual thinning of the bony trabeculae and loss of muscle volume/mass occur. In severe cases, osteoporosis or sarcopenia occurs.

OSTEOPOROSIS

Osteoporosis is a condition where there is a loss of bone mineral density with a subsequent increased risk of fragility fractures, defined by a BMD T-score<-2.5. Patients with osteoporosis may experience gradual hunching, back pain and fractures with minimal injury.

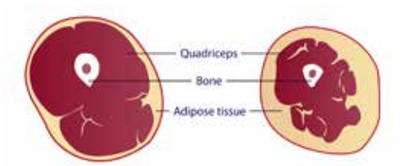


Osteoporosis can be primary or secondary, where secondary osteoporosis is due to other underlying causes like chronic renal disease or renal failure, long term steroid usage, or other metabolic disorders. Primary osteoporosis can be either post-menopausal (in women) or senile (in men). Treatment of osteoporosis is recommended to reduce risk of fragility fractures and the associated complications of an osteoporotic fracture. Treatment consists of dietary measures (adequate calcium and vitamin D intake), weight-bearing exercise for stimulation of bone growth, and medications.

SARCOPENIA

On the other hand, sarcopenia is the loss of muscle mass and strength, with a subsequent loss in function. Sarcopenia is derived from the Greek words sarx meaning flesh and "penia" meaning poverty. It is fast becoming a global phenomenon as the world's population ages. The consequence is increased mortality, morbidity and disability, thereby translating to a significant financial healthcare burden.

What is more alarming are the local numbers. In a study published in 2021 titled the *Yishun Study,* 32.4% of the cohort between 21-59 years of age have low muscle mass, and 14.1% have probable sarcopenia. There are also studies suggesting that the presence of sarcopenia correlates with poor spinal balance and back pain, with an increased risk of poor surgical outcomes for spine surgery in these patients.



Healthy / Sarcopenia thigh muscle

However, all is not lost. There are mitigating measures for sarcopenic patients. More importantly, there is a need to identify these patients in the pre-sarcopenic phase. Management of sarcopenia depends on two important factors: nutrition and exercise. For nutrition, it is important to have adequate long-chain proteins and vitamin D for muscle building. As for exercise, it is recommended to do resistance training of moderate intensity for at least two days per week.

CONCLUSION

All in all, it is important to keep healthy and recognise signs of severe degeneration, such as osteoporosis and sarcopenia, so that treatment can be started early to prevent further complications. PRIME



Dr Fong Poh Ling
Senior Consultant Orthopaedic Surgeon
Alpha Joints & Orthopaedic
MBBS (Spore), MMed (Ortho),
FRCS (Ortho)(Edin)

Dr Fong Poh Ling is currently the Senior Consultant Orthopaedic Surgeon at Alpha Joints & Orthopaedic. Her primary interest lies in the treatment of ageing and degenerative spine conditions, with a special focus on sagittal balance and deformity. In the Singapore Spine Community, she is notable as the first female spine orthopaedic surgeon and serves on the diversity committee of the Singapore Spine Society. In this role, she engages with female residents and encourages greater female participation, in collaboration with the AOSpine global platform. She aims to inspire, inform and enable her patients to enhance their health and well-being.

ALPHA JOINTS & ORTHOPAEDICS

CLINIC WEBSITE

SCAN HERE

ALPHA JOINTS & ORTHOPAEDICS

Novena Medical Center
10 Sinaran Drive #10-30
Singapore 307506

Gleneagles Medical Centre
6 Napier Road #02-20
Singapore 258499

+65 8125 0874

+65 6514 2137

enquiries@ajo.com.sg

alphajoints.com

Holistic Way®
PREMIUM GOLD

Golden Glow

Discover Skin and Hair Radiance with Holistic Way Premium Gold Supplements

SINGAPORE No.1 HEALTH SUPPLEMENT BRAND



In our quest to pursue youthful radiance and optimal health, the condition of our skin and hair is a vital area which we must pay attention to. Both our skin and hair require important nutrients like proteins (e.g. collagen, keratin) and antioxidants to stay healthy. We need to ensure that we have an adequate intake of these nutrients to keep our skin and hair in optimal condition. For this, Holistic Way offers a range of Premium Gold supplements designed to enhance the well-being of your skin and hair from the inside out.

Holistic Way Premium Gold Diamond White Collagen

Holistic Way Premium Gold Diamond White Collagen is a comprehensive All-in-One formula that contains PhytoflORAL®, a proprietary ingredient derived from non-GMO tomatoes. Rich in carotenoids such as Phytoene and Phytofluene, it may help to support brightening of skin, apart from helping to support the body's natural response towards UV exposure and provide essential sun protection.

Added with Hydrolysed Marine Collagen and L-Glutathione, it may also help support skin hydration, skin health and complexion. Polypodium leucotomos is a type of topical fern which helps to support the body's natural response towards UV exposure and provide essential sun protection. Holistic Way Premium Gold Diamond White Collagen also contains Nicotinamide Mononucleotide (NMN), a cellular energy precursor, and various antioxidants that may assist in energy metabolism and overall skin health.



Holistic Way Premium Gold Deer Placenta 15,000mg

Holistic Way Premium Gold Deer Placenta 15,000mg is a comprehensive all-in-one formula designed to support skin elasticity, suppleness and firmness. This powerful supplement contains extracts equivalent to 15,000mg of fresh deer placenta, marine collagen and squalene, which work together to promote healthy, youthful-looking skin. In addition to its skin-boosting benefits, Holistic Way Premium Gold Deer Placenta 15,000mg also contains a range of other ingredients that support overall health and well-being. Fucoidan, a complex series of sulfated polysaccharides found in brown seaweeds, acts as a source of antioxidants and supports immune function. Grape Seed Extract and Lycopene Oil are rich in antioxidants that help protect the skin from free radical damage. Evening Primrose Oil and Borage Oil are added to the formula to support healthy hair, skin and nails.

Yeo Yann Yann
Golden Horse Award Best Actress
JR Life Sciences/Holistic Way Ambassador

Holistic Way Premium Gold Crown Care Hair Food

Holistic Way Premium Gold Crown Care Hair Food is a comprehensive All-In-One formula that helps to restore healthy shine and supports normal hair growth from within. Amino Acids and Hydrolysed Keratin are forms of protein that support our hair's natural protective layer and hair quality. With Nettle root, it may help to support the growth of existing and new hair, apart from nourishing the scalp and hair follicles. Horsetail is a rich natural source of Silica that helps with better hair strength, while Ginkgo Biloba helps with blood flow to the scalp. Added with Biotin and other B vitamins, it may help support healthy hair condition. He Shou Wu is a traditional Chinese herb that may help the hair retain its natural colour.

Experience the Holistic Way Premium Gold Difference

Whether you are looking to enhance your skin's radiance, rejuvenate your body or achieve beautiful hair, the Holistic Way Premium Gold series offers a holistic nutritional approach to wellness and beauty. Discover the transformative power of Holistic Way Premium Gold series and embrace a healthier, more vibrant you. PRIME

www.holisticway.com.sg

SME500 SINGAPORE 2021-2022 · SINGAPORE QUALITY CLASS · Influential Brands TOP 1 BRAND 2023 HEALTH SUPPLEMENT · SINGAPORE CONSUMERS' CHOICE 2022-2023 · Singapore Prestige Brand Award 2020/21

JR Life Sciences Pte Ltd
2 Bukit Batok Street 24, #08-20
Skytech, Singapore 659480

CARE LINE 6425-4100 | holistic way | holisticwaysg | Holistic Way 豪利诗威

Available at: guardian watsons Unity

Fit for Life

The Importance of Physical Activity for a Long and Healthy Life



Pioneering gerontologist Dr Robert N. Butler, the first director of the US National Institute on Ageing, opened his 1977 research paper *Exercise, the Neglected Therapy* with the following words: "If exercise could be packed in a pill, it would be the single most widely prescribed and beneficial medicine." These words succinctly sum up the importance of physical activity as a form of preventive and remedial health care for the ageing population.

Indeed, data from the World Economic Forum has shown that average global life expectancy has risen from 46 years in 1950 to 72 years in 2022. In order to live a longer life of higher quality, both financial and physical well-being are required. These would involve efforts and contributions from different stakeholders like the government, financial institutions, employers, etc. However, another key factor in living a life of good quality is the upkeeping of one's health. In this aspect, exercise - in whatever forms - is key.



SEDENTARY VS ACTIVE LIFESTYLE

Being sedentary brings ill effects to one's health. The WHO (World Health Organisation) reported that 6% of premature mortality is related to physical inactivity; it is also the 4th leading global risk factor for death in middle-to-high income countries like Singapore (first being high blood pressure, followed by cigarette smoking and then high blood sugar levels). In fact, being unfit is an independent risk factor for cardiovascular disease as well.

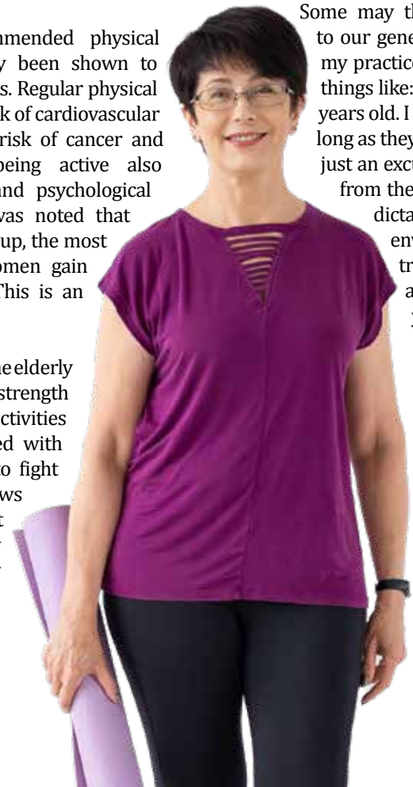
In contrast, achieving recommended physical activity levels has consistently been shown to bring a myriad of health benefits. Regular physical activities not only reduce the risk of cardiovascular disease, they also reduce the risk of cancer and osteoporosis. Furthermore, being active also improves cognitive function and psychological well-being. In one study, it was noted that during up to 34 years of follow-up, the most physically active men and women gain 7-8 years of life expectancy. This is an impressive number!

A common medical problem in the elderly is the loss of muscle mass and strength (sarcopenia). Again, physical activities like resistance training, coupled with a high protein diet, can help to fight against sarcopenia. The good news is that it is never too late to start to move our muscles. One study has shown that even the very elderly (>80 years old) can still increase their muscle mass and strength by starting regular resistance training!

Screening for underlying cardiovascular disease can be useful for individuals who intend to start exercising. This is especially important for inactive individuals with multiple cardiovascular risk factors like diabetes mellitus or smoking. Similarly, for people with a family history of early cardiovascular disease, pre-exercise screening should be considered. The usual screening tools for cardiovascular disease include ultrasound scan of the heart (echocardiogram) and exercise stress testing.



Some may think that longevity is very much linked to our genetic makeup. This is not really the case. In my practice, it is not uncommon to hear patients say things like: "Both my parents have already lived to 80 years old. I have good genes, so I am going to live for as long as they have, probably even more!" This is usually just an excuse to remain physically inactive. Research from the Danish Twin Study has shown that genes dictate only 20% of longevity, while lifestyle and environment account for the rest. So, if you truly believe that you are destined for a long and healthy life based on your genes alone, you will be in for a rude shock.



WHO RECOMMENDATIONS

In 2020, WHO made the recommendation that adults should do at least 150-300 minutes of moderate-intensity aerobic physical activity, or 75-150 minutes of vigorous-intensity aerobic physical exercise, or an equivalent combination of moderate- and vigorous-intensity activity throughout the week.



Moderate-intensity activities can include exercises like brisk walking, cycling or swimming, with a noticeable increase in heart rate. On the other hand, vigorous-intensity activities are typified by jogging or running, which cause a significant increase in heart rate and rapid breathing. Beyond the above recommendation, WHO also recommends having muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on two or more days a week. Exceeding the minimum recommended amount of physical activity would bring additional health benefits.

CAN YOU HAVE TOO MUCH OF A GOOD THING?

For those who exercise regularly, you may wonder about the potential risk of exercising "excessively": can we actually have too much of a good thing? Well, intense, regular high volume physical training may enlarge the chambers of our heart and sometimes, also thicken the heart muscle wall. There may also be ECG (electrocardiogram) changes. These changes are due to the physiological adaptation of our heart to the regular induced physical stress. These changes are benign and are known as "athlete's heart".

In terms of cardiovascular problems that athletes may encounter, rhythm abnormality or more specifically, atrial fibrillation (AF), is the most common. The frequency of AF has been estimated to be 2-10 times greater in high-intensity endurance athletes compared to sedentary individuals. However, regular mild- to moderate-intensity exercise can protect one from cardiovascular disease and AF. Premature ventricular contractions (PVCs) are also quite common in the athletic population.

Middle-aged and older male athletes may also have increased coronary artery calcification (CAC) and atherosclerotic plaques, which are related to the amount and intensity of lifelong exercise. The cardiovascular risk associated with coronary atherosclerosis in athletes and how it differs from the general population is still uncertain at this point.

SCREENING

It should be noted that there is a higher risk of sudden death for sedentary individuals who suddenly and abruptly participate in vigorous exercise. Hence, anyone who is keen to start an exercise training regime is advised to do so slowly and build up their physical fitness gradually.

Screening for underlying cardiovascular disease can be useful for individuals who intend to start exercising. This is especially important for inactive individuals with multiple cardiovascular risk factors like diabetes mellitus or smoking. Similarly, for people with a family history of early cardiovascular disease, pre-exercise screening should be considered.





The usual screening tools for cardiovascular disease include ultrasound scan of the heart (echocardiogram) and exercise stress testing. Depending on the findings of the initial screening, additional tests may be necessary.



CONCLUSION

In a nutshell, exercise is the magic bullet for leading a long and healthy life. Its benefit extends beyond cardiovascular health; it also reduces risk of chronic diseases like hypertension, improves mental health, enhances cognitive function and even lowers the chance of many types of cancer like breast cancer. Let's start to embark on this journey of health together! PRIME



Dr Tang Hak Chiaw
Consultant Cardiologist
Novena Heart Centre
MRCP (UK) (RCP, United Kingdom),
MBBS (U of Malaya, Malaysia)

/novenaheartcentre

Dr Tang Hak Chiaw is a Consultant Cardiologist in Novena Heart Centre. He started his cardiology training in National Heart Centre Singapore in 2004. He subsequently furthered his training in the field of cardiomyopathy and cardiac MRI at The Heart Hospital, University College London Hospitals, UK in 2010. He started a dedicated cardiomyopathy clinic at National Heart Centre in 2011. Dr Tang is a recognised expert in cardiomyopathy. His expertise in echocardiography and cardiac MRI further enhances his work in this field.

NOVENA HEART CENTRE
touching lives with care

CLINIC WEBSITE

SCAN HERE

NOVENA HEART CENTRE
Gleneagles Medical Centre
6 Napier Road #10-09
Singapore 258499
+65 9438 1937
+65 6397 2004

apptgeh@novenaheartcentre.com.sg

www.novenaheartcentre.com.sg

MY HIP CAN'T HOP

Enhanced Recovery (ERAS) Total Hip and Knee Replacement

Did you know that you can recover faster when undergoing total hip or knee replacement surgery through the specialised Enhanced Recovery After Surgery (ERAS) approach? With ERAS Total Hip and Knee Surgery, patients experience accelerated recovery, minimal postoperative pain and a shorter hospital stay.

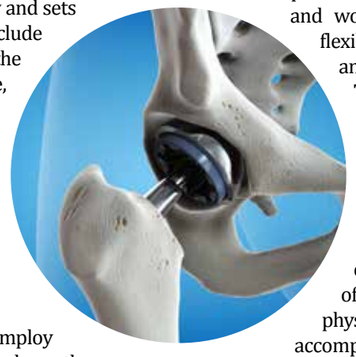


ENHANCED RECOVERY AFTER SURGERY (ERAS)

ERAS is a patient-centred approach that involves a series of preoperative, intraoperative and postoperative procedures aimed at reducing the psychological stress induced during surgery. The guidelines of ERAS aim to accelerate the recovery process while maintaining or improving the quality of patient care, ensuring that patients can return to the daily activities they love quickly. This is achieved through meticulous attention to detail in surgical procedures, pain management, patient education, nutrition and physical rehabilitation, making the entire surgical experience as seamless and efficient as possible. So, how does ERAS differ from traditional surgical approaches? Let us examine the three different stages: preoperative preparation, intraoperative techniques and postoperative care.

PREOPERATIVE PREPARATION

The success of ERAS starts with comprehensive preoperative preparation. This phase involves educating the patient about the surgery, which reduces anxiety and sets realistic expectations. Assessments include detailed health evaluations to optimise the patient's physical condition. For example, patients may be advised to improve their nutritional status, cease smoking, and manage chronic diseases such as diabetes or hypertension under medical supervision. These steps are crucial in minimising surgical risks and enhancing postoperative recovery.



INTRAOPERATIVE TECHNIQUES

In an ERAS approach, surgeons employ minimally invasive techniques that reduce the body's physiological stress, with minimal tissue damage and reduced pain. For hip replacements, the Direct Anterior Approach (DAA) allows surgeons to work between muscles rather than cutting through them, which helps to preserve muscle tissue and reduce pain. In knee replacements, techniques like kinematic alignment are employed to replicate the knee's natural movement, enhancing the longevity of the implant.

POSTOPERATIVE CARE

The ERAS journey does not end with surgery; postoperative care is just as crucial. Immediate postoperative protocols include early mobilisation, often within hours of surgery, to promote circulation and muscle function. Pain management is handled through multimodal pain relief strategies, avoiding heavy reliance on opioids. Nutritional support is tailored to aid healing and strength recovery. Moreover, follow-up appointments are scheduled to monitor recovery, manage potential complications, and ensure patients remain engaged in their rehabilitative activities.





FASTER RECOVERY

After an ERAS Total Hip and Knee Replacement Surgery, your orthopaedic surgeon will recommend physiotherapy and wound care options to regain strength, flexibility and stability in the operated knee, and aid in a swift return to normal activity. The surgeon may also suggest using a walking aid during the recovery process. Attending a structured rehabilitation programme supervised by healthcare professionals is recommended. As the ERAS approach minimises postoperative pain, patients can expect expedited recovery. A combination of good surgical technique, enhanced physiotherapy and optimal nursing care accomplishes this. However, each patient's recovery process would vary, based on factors such as age, physical health and the extent of joint damage.

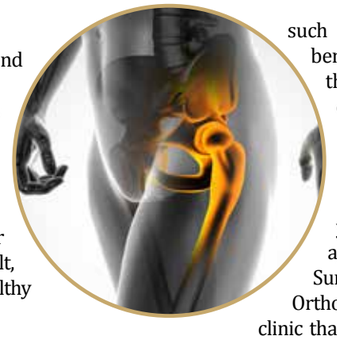
> An orthopaedic surgeon can assess your condition and provide a personalised recovery plan to address problems with your hip and knee. In order to book an appointment with Consultant Orthopaedic Surgeon, Dr Jerry Chen, kindly contact Alps Orthopaedic Centre, a hip and knee surgical clinic that is conveniently located at Mt Elizabeth Orchard Hospital, Singapore.



BENEFITS

Patients who undergo ERAS Total Hip and Knee Replacement would benefit from:

- **Minimal Postoperative Pain:** This specialised surgical procedure does not require the removal or detachment of any muscle tissues. It significantly reduces the risk of muscle atrophy and strength loss - common concerns for patients undergoing surgery. As a result, ERAS helps patients maintain a healthy baseline of muscle function post-surgery.



- **Faster Recovery:** The ERAS approach allows most patients to eventually return to normal activities, such as walking, running and playing sports independently. Before gradually returning to sports, patients should undergo a thorough evaluation to ensure their operated knee joint can withstand the demands of rigorous physical activities. This assessment from your orthopaedic surgeon is necessary to prevent complications and ensure safe participation.

- **Improved Surgical Outcomes:** The Direct Anterior Approach (DAA) associated with ERAS hip replacement, also utilises an intraoperative imaging machine during the surgical process, allow surgeons to evaluate a patient's leg length. They enable them to place the prosthesis with precision.

RISKS

As with any surgery where anaesthesia is used, there is a slight risk of stroke, heart attack, pneumonia and blood clot. While hip and knee replacement surgeries generally have low risks, there are potential rare risks associated with the procedure. These risks include the possibility of:

- An infection may occur in about 1% of patients, but it can typically be managed easily with antibiotics. However, in rare cases, infection may require removal of the replacement joint and, in severe instances, can be life-threatening if it spreads throughout the body.
- A fracture when handled by inexperienced hands.
- Wear and tear (85% of the implants last more than 20 years).
- Injury to surrounding neurovascular structures (very rare).
- Allergic reaction to the prosthetic component.

Recognising the potential risks associated with this procedure underscores the importance of an ERAS approach and the necessity for specialised guidance from an orthopaedic surgeon throughout the preparation, procedure and recovery. In general, most complications can be effectively managed. Even if complications arise post-surgery, success can usually still be achieved if pain relief and good function are attained in the long term.

WHEN TO SEE AN ORTHOPAEDIC SURGEON

Patients with hip arthritis and osteonecrosis are common candidates for hip replacement surgery. If you experience chronic pain in your hips and find that physical activities such as prolonged walking, working out, bending down to pick something or climbing the stairs are painful, you may want to consult an orthopaedic surgeon.

An orthopaedic surgeon can assess your condition and provide a personalised recovery plan to address problems with your hip and knee. In order to book an appointment with Consultant Orthopaedic Surgeon, Dr Jerry Chen, kindly contact Alps Orthopaedic Centre, a hip and knee surgical clinic that is conveniently located at Mt Elizabeth Orchard Hospital, Singapore. PRIME



Dr Jerry Chen
Consultant Orthopaedic Surgeon
Alps Orthopaedic Centre
MBBS (S'pore), MRCSEd,
MMed (Ortho), FRCSEd (Ortho)

/alpsortho.sg
/alpsortho.sg

Dr Jerry Chen is a Consultant Orthopaedic Surgeon and Medical Director at Alps Orthopaedic Centre. Dr Chen's clinical interests include Enhanced Recovery After Surgery (ERAS) for Hip and Knee, Sports Injuries, Minimally Invasive Surgery and Robotic Surgery. Before starting Alps Orthopaedic Centre, Dr Chen was a Consultant at Singapore General Hospital (SGH), where he accumulated over 13 years of experience in Orthopaedic Surgery. He has spearheaded the workgroup for Enhanced Recovery After Surgery (ERAS) for hip and knee replacement surgeries at SGH, where he successfully employed ERAS, benefiting more than 2,000 patients thus far. Having performed over 500 surgeries in a year, he has been instrumental in helping numerous patients recover from injuries and diseases, and return to their active lifestyles.

ALPS ORTHOPAEDIC CENTRE

CLINIC WEBSITE
SCAN HERE

ALPS ORTHOPAEDIC CENTRE
Mt Elizabeth Medical Centre
3 Mount Elizabeth #06-05
Singapore 228510
+65 9088 4555

info@alpsortho.sg
www.alpsortho.sg

PRIME magazine

PRESENTS

Healthy Melody Seminar

For Your Healthier Future

This September, Prime Magazine is hosting the Healthy Melody Seminar, and we're excited to have you join us! Hear from 4 leading doctors as they share insights on vital health topics and provide practical tips for improving your well-being and quality of life. Tune in to wellness and be part of a community that supports you on your journey towards a healthier you!

Lifelong Learning Institute (Auditorium - Level 2), 11 Eunos Road 8, Singapore 408601

21 Sept 2024 (Saturday), 12:00pm - 5:00pm



Dr Fong Poh Ling

Senior Consultant Orthopaedic Surgeon, Alpha Joints & Orthopaedic

Dr Fong Poh Ling, Senior Consultant Orthopaedic Surgeon at Alpha Joints & Orthopaedic, will speak on Ageing and the Spine. Ageing is a natural part of life and can effect many physical changes in our body. As we grow older, our joints, ligaments and muscles can get worn down, resulting in conditions like Lumbar Spondylosis, Osteoporosis and Sarcopenia. Find out more about how we can manage and treat these various conditions.



Dr Fiona Wu

Urologist, Aare Urocare

Dr Fiona Wu, Urologist at Aare Urocare, will discuss on The Treatment of Incontinence and Nocturia. Incontinence and nocturia are common conditions which can affect the elderly and even those younger. However, there are different treatment and management methods which can help with these prevalent urological conditions, which can improve outcomes and one's quality of life. Enhance your understanding of incontinence and nocturia with this talk.



Dr Lim Lee Guan

Gastroenterologist, Specialist Care Group

Dr Lim Lee Guan, Gastroenterologist at Specialist Care Group, will present on Hepatitis B and Helicobacter Pylori: Treatable Infective Causes of Cancer. Hepatitis B infection may lead to liver inflammation, fibrosis and cirrhosis, increasing the risk of liver cancer; while helicobacter pylori bacteria can cause gastritis and gastric ulcers, increasing the risk of gastric cancer. Find out how these infections can be diagnosed and treated to decrease the risk of developing cancer of the liver and stomach, respectively.



Dr Chong Choon Seng

General/Colorectal Surgeon, Ark Surgical Practice

Dr Chong Choon Seng, General/Colorectal Surgeon at Ark Surgical Practice, will inform about Inflammatory Bowel Disease and Anal Fistulas: Surgical Perspectives and Management. Inflammatory bowel disease (IBD) is relatively uncommon among Asians but is increasing in prevalence. This condition can cause symptoms like anal discharge and pain, leading to serious complications such as anal fistulas. IBD also elevates the risk of colon cancer, necessitating regular colonoscopy screenings. Understanding the symptoms and recognising them early is crucial for preventing complications and reducing the risk of colorectal cancer. Join us to learn more about IBD, its symptoms, diagnosis, and management.

SCAN HERE

TO REGISTER

For Enquiries, Email: Prime@spring.com.sg

Seminar Fee: $8 for 1 person, $10 for 2 persons

Event Lucky Draw Sponsored by:

Dr.Rock SKG sodastream

FREE
Goodie Bag



This seminar is made possible thanks to our beloved sponsors:

AARC ALPHA JOINTS & ORTHOPAEDICS ARK DCH AURIGA Depend FERRING PHARMACEUTICALS CARE TS6 Lady Health URBANREHAB



PRIME magazine PRESENTS:

Healthy Melody

A HEALTH SEMINAR

Lifelong Learning Institute (Auditorium - Level 2)
11 Eunos Road 8, Singapore 408601

21 Sept 2024 (Saturday), 12:00pm - 5:00pm

For Enquiries, Email: Prime@spring.com.sg

EVENT PROGRAMME:

12:00 pm – 12:45 pm	Registration
12:00 pm – 12:45 pm	Urine Test, Postural Checks, Strength & Functional Test
1:00 pm – 1:45 pm	Ageing and the Spine *Dr Fong Poh Ling*
1:45 pm – 2:30 pm	The Treatment of Incontinence and Nocturia *Dr Fiona Wu*
2:30 pm – 3:15 pm	Tea Break
3:15 pm – 4:00 pm	Hepatitis B and Helicobacter Pylori: Treatable Infective Causes of Cancer *Dr Lim Lee Guan*
4:00 pm – 4:45 pm	Inflammatory Bowel Disease and Anal Fistulas: Surgical Perspectives and Management *Dr Chong Choon Seng*
4:45 pm – 5:00 pm	Event Lucky Draw Sponsored by: Dr.Rock SKG sodastream

GUEST SPEAKERS:



Dr Fong Poh Ling

Senior Consultant Orthopaedic Surgeon, Alpha Joints & Orthopaedic



Dr Fiona Wu

Urologist, Aare Urocare



Dr Lim Lee Guan

Gastroenterologist, Specialist Care Group



Dr Chong Choon Seng

General/Colorectal Surgeon, Ark Surgical Practice

In partnership with our sponsors:

AARC ALPHA JOINTS & ORTHOPAEDICS ARK DCH AURIGA Depend FERRING PHARMACEUTICALS CARE TS6 Lady Health URBANREHAB

SEMINAR FEE:

$8 for 1 Pax

$10 for 2 Pax

FREE
Goodie Bag



SCAN TO REGISTER

THE LAST WESTERN HERO

Can Kevin Costner Revive the Western with His Latest Epic - Horizon: An American Saga?

The Western genre, once a cornerstone of Hollywood's film industry, has seen a significant decline in popularity since its heyday in the mid-20th century. While the Western flourished from the 1930s to the 1960s, with stars like John Wayne and directors like John Ford leading the charge, as the 60s progressed, a variety of factors - from changing societal values to evolving audience preferences and industry dynamics - led to the slow demise of the stalwart genre.







During the early 90s, there was a period when the Western enjoyed a brief revival and looked set to rule the roost again as major studios churned out a slew of big-budget Western productions. From the award-winning Clint Eastwood classic *Unforgiven* and the Tom Cruise-Nicole Kidman-headlined *Far and Away* (both 1992) to the romantic *Legends of the Fall* (1994) led by Brad Pitt and *The Quick and the Dead* (1995) featuring a young Leonardo DiCaprio (1995), these Westerns garnered critical acclaim and box office success in equal measures by deconstructing traditional Western tropes, and drawing fresh perspectives from other genres to attract a broader audience.

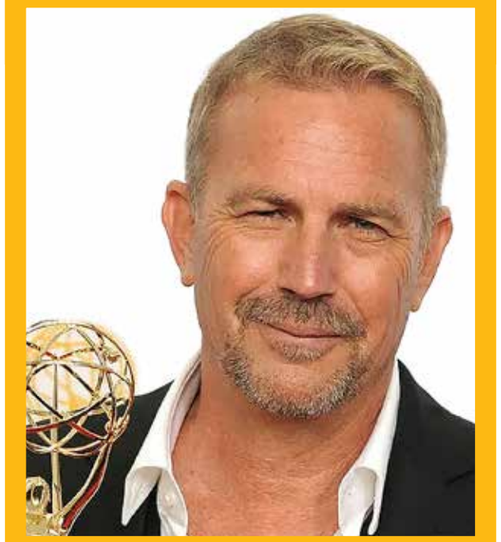
This mid-90s revival in the fortunes of the Western was led by one of the biggest success stories of the decade - the frontier classic *Dances with Wolves* (1990). The star and director of *Dances with Wolves* - Kevin Costner - has remained one of the Western genre's biggest and most recognisable stars (alongside Clint Eastwood) ever since.

EARLY LIFE

Kevin Michael Costner was born on 18 January 1955, in Lynwood, California. His father was first an electrician, and then a utilities executive at Southern California Edison, while his mother was a social worker. Costner was the youngest of three brothers, but tragedy struck his family early when his middle brother died at birth. Growing up in a modest but staunch Baptist and Republican household, Costner and his older brother Dan spent much of their early years in Compton, California - a historically crime-ridden city within Los Angeles County, where Costner was very involved in his community and church. This was also the happiest and most stable time of his childhood as he admitted, "I thought my little backyard in Compton was a kingdom."

Due to the nature of his father's work, Costner's family began to move around California frequently. From Compton, he then moved to Ventura and Visalia, among other places. This instability led to Costner attending twelve different schools, making it difficult for him to establish lasting relationships with his teachers and peers. These difficulties were compounded by his insecurities with his short stature during his high school years. As Costner recalled, "The fact that I was five foot two as a sophomore didn't help. I'm six foot one now but still relate to those feelings. I didn't date in high school and didn't get my growth until college. I never got over being short."

Despite these challenges, Costner found solace in creative and sporting pursuits. From a young age, he was not academically inclined, but was drawn towards poetry, music and sports. He enjoyed writing poetry in his spare time, while he also sang in the church choir. Costner was actively engaged in sports. He played basketball, baseball and American football, but found that he liked basketball best. However, it was in baseball where he excelled. Costner played as a pitcher for his high school baseball team and later attended California State University, Fullerton on a baseball scholarship. Before going into acting, he even briefly considered the idea of becoming a professional baseball



player. His affinity with sports is a primary reason why he became closely associated with sports movies (besides the Western) during his acting career.

Costner's love for acting first emerged during his high school years at Villa Park High School in Orange County, where he participated in several school plays. He developed a particular love for the movies. One of the films which greatly influenced him was the Western epic *How the West Was Won* (1962) which showcased a galaxy of stars including James Stewart, John Wayne, Gregory Peck and Henry Fonda, with Spencer Tracy providing the narration. In an interview with Pulitzer Prize-winning movie critic Roger Ebert, Costner told Ebert, "The impression for me, hearing Spencer Tracy and watching CinemaScope and seeing Jimmy Stewart in that canoe was so strong that it got into my nostrils. I actually went ahead and built three canoes in my life. I travelled the rivers of Lewis and Clark when I was out of high school." As he became fascinated with the genre, Costner also sought out other Western classics like *Red River* and *The Searchers,* two of John Wayne's best films. These movies imbibed Costner with an indelible, life-long love for the Western from his formative years.

After graduating from high school in 1973, Costner enrolled in California State University, Fullerton, where he studied marketing and finance. However, as he was studying, he began to realise that business was not his true calling. In an interview with *Rolling Stone,* Costner recalled, "As I approached my senior year, I had a real talk with myself about what I wanted to do and whether I just wanted to

please other people. And it was at that moment that I actually said to myself, 'I'm interested in storytelling.'"

GOING INTO ACTING

In his later college years, Costner took a more serious interest in acting. However, upon graduation, he remained unsure about which career he wanted to pursue, and so decided to play it safe by accepting a marketing position. It took a chance encounter with the legendary Richard Burton to change his career path.

In 1978, at the age of 22, Costner met Burton on a plane after his honeymoon with his first wife Cindy. Costner said of the meeting, "He was famously volatile, he was incredibly talented, and he could have easily said, 'Please go sit back in your seat, that's why I bought all these seats around me, so no one would talk to me.' But he didn't do that, and he easily could have. (Burton had) a gentleness with me. I was really unsure what I wanted to do with my life, and I saw him there, and I intruded on his. I had never been in a play, well, that's not true I had done some community theatre, but I was really thinking I could make this a living and I desperately wanted to talk to him. The conversation never really expanded other than there was a gentleness and a kindness, and looking at me saying, 'I think you should try this.'" This was the affirmation that Costner needed to take acting seriously and pursue his acting dreams.

But the journey to stardom was far from easy. After quitting his marketing job, Costner had to take on various odd jobs to support his family, including truck driving, working on a fishing boat and giving tours of movie stars' Hollywood homes, while attending acting classes and auditions. In 1981, Costner snagged his first role - a small part in the romantic comedy *Sizzle Beach, USA.* However, the film was not widely released until a few years later in 1986 when Costner had already become famous, He continued to struggle in obscurity for a few years, taking on supporting and bit part roles in various movies like *Night Shift* (1982), *Stacy's Knights, Table for Five, Testament* (all 1983) and *Shadows Run Deep* (1984).

Costner was also part of the cast in the widely-acclaimed drama *The Big Chill* (1983), directed by Lawrence Kasdan. He played the role of Alex, whose suicide and funeral were the premise for the movie. Unfortunately, despite his character being central to the movie's setup, all of Costner's flashback scenes were deleted from the final cut and he was only glimpsed briefly as his body was being dressed at the beginning of the movie. Yet, it was as much an opportunity lost as it was one gained. To make up for cutting him out of the film, Kasdan offered Costner a leading role in his next film, the Western *Silverado* (1985). Costner and Kasdan became firm friends and they would collaborate often over the years. And *Silverado* would become the film that brought Costner greater public attention.

RISE TO STARDOM

Before filming *Silverado,* Costner also took on one of the leading roles in *Fandango* (1985), a coming-of-age drama comedy directed by Kevin Reynolds, who would also become one of Costner's most oft collaborators. But it was *Silverado* which gave Costner his first glimpse into the Hollywood star map. The ensemble Western was only a moderate commercial success, but it was well received critically and showcased Costner's potential as a leading man.

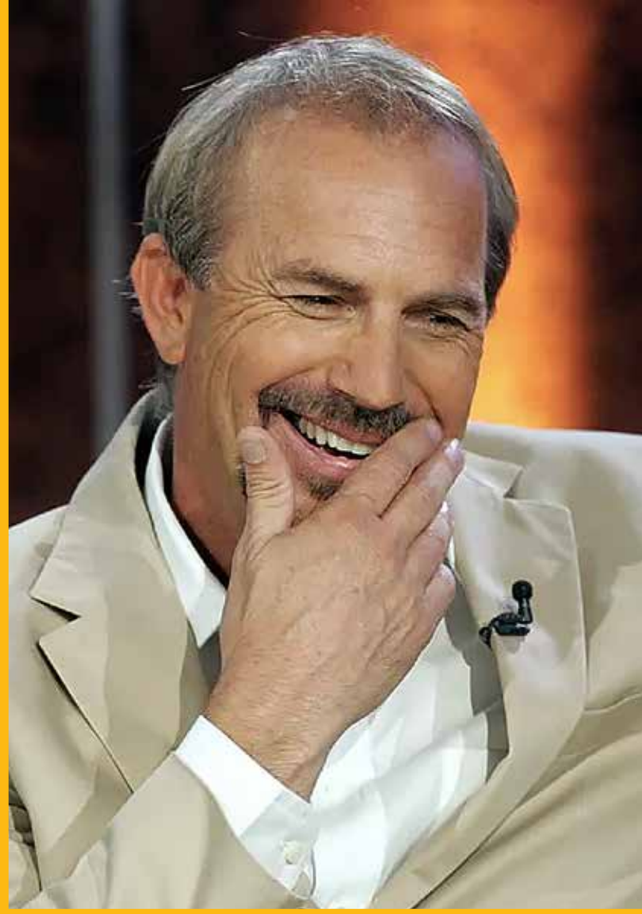
Costner's next few credits included the sporting drama *American Flyers* (1985), and the TV movie and TV series *Amazing Stories* (1986). But it was his leading role in the star-studded 1987 Prohibition-era crime thriller *The Untouchables,* directed by Brian De Palma, that truly established Costner as a major star. Portraying Eliot Ness, the federal agent who takes down Al Capone (played by Robert De Niro), Costner delivered a solid, powerful performance that anchored the film's narrative and catapulted him to A-list stardom. The film was a critical and commercial success. It grossed over US$76 million worldwide and won Sean Connery an Oscar for Best Supporting Actor.

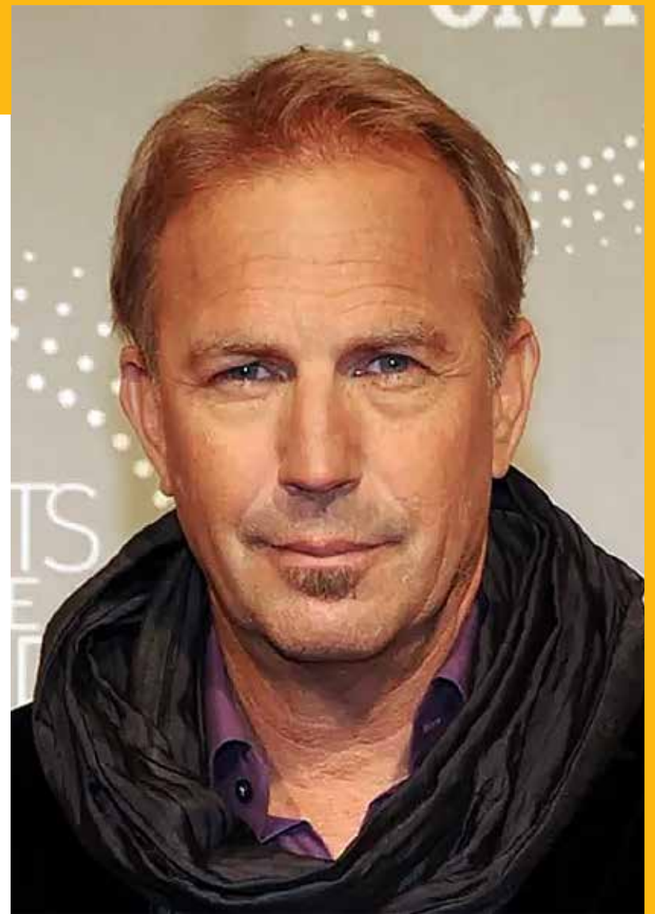
The late 80s saw Costner continue to solidify his status as one of Hollywood's most sought-after leading men. He starred in a number of action thrillers to moderate success, including the spy espionage *No Way Out* (1987) and the Tony Scott-directed *Revenge* (1990). *Revenge* also saw Costner step into the role of producer for the first time.

However, it was during this time when he began to become closely associated with the sports movie, so much so that he would later be nicknamed the "King of Sports Movies". For example, in 1988, Costner starred in *Bull Durham,* a romantic comedy set in the world of minor league baseball. He played Crash Davis, a seasoned catcher who has an affair with a fan, played by Susan Sarandon. Both the movie and Costner's

AS I APPROACHED MY SENIOR YEAR, I HAD A REAL TALK WITH MYSELF ABOUT WHAT I WANTED TO DO AND WHETHER I JUST WANTED TO PLEASE OTHER PEOPLE. AND IT WAS AT THAT MOMENT THAT I ACTUALLY SAID TO MYSELF, "I'M INTERESTED IN STORYTELLING."









performance earned high praise as the role showcased his versatility as an actor. *Washington Post's* Desson Howe noted that Costner "proves he can be comedic too", while Ebert called *Bull Durham* "a treasure of a movie". The film's commercial success further cemented Costner's reputation as a viable leading man in sports movies.

Perhaps, *Bull Durham's* success was why Costner would go on to star in not one, but two more baseball movies in 1989. Besides the lowkey *Chasing Dreams,* Costner also starred in *Field of Dreams,* a fantasy-drama about an Iowa farmer who builds a baseball field that attracts the ghosts of legendary players to play, specifically that of Shoeless Joe Jackson (played by Ray Liotta). The film was an even bigger critical and commercial success than *Bull Durham,* earning an Oscar nomination for Best Picture in 1990 and becoming an enduring baseball classic.

PINNACLE OF SUCCESS

Costner's greatest moment arrived in 1990 when he made his directorial debut with *Dances with Wolves,* a sweeping epic about a Union Army officer named John Dunbar who befriends a tribe of Lakota Sioux when he is sent to a deserted western frontier outpost. Costner not only directed the film, but also starred (playing Dunbar) and produced it. The film was a labour of love for Costner, who invested five years and considerable resources into its production. Due to budget overruns and general industry reluctance to invest in a Western, Costner was forced to dig deep into his own pockets to finance the film, paying US$3 million to make up the film's US$18 million budget to cover overages.

However, Costner's commitment to the film paid off handsomely. *Dances with Wolves* was a huge commercial and critical success. It earned over US$424 million worldwide, making it the highest grossing Western of all time until *Django Unchained* knocked it off the top of the heap (barely) with a US$426 million gross in 2012. Costner earned an estimated US$40 million from his original investment in the film. Strangely, *Dances with Wolves* achieved this stratospheric figure without ever reaching #1 on the US box-office charts.

Besides its commercial success, *Dances with Wolves* also scored extremely well with critics. Both Ebert and *Reelviews*' James Berardinelli gave the movie a four-star review. Ebert praised that the film "has the kind of vision and ambition that is rare in movies today" and "it is a Western at a time when the Western is said to be dead." Calling it "a personal triumph" for Costner, he noted that the movie "moves so confidently and looks so good, it seems incredible that it's a directorial debut." Berardinelli similarly enthused about Costner's resurrection of the Western, commenting that Costner "came along and singlehandedly breathed new life into the genre."

Dances with Wolves swept the 1991 awards season with multiple nominations and awards. It received twelve Oscar nominations and won seven, including Best Picture and Best Director wins for Costner. It also won Best Picture - Drama and Best Director for Costner at the Golden Globes. The film's Oscar nominations and wins would be Costner's only ones to date thus far. Overall, the film's fair portrayal of Native American culture and its stunning cinematography were widely praised. Indeed, the Lakota Nation even adopted Costner as an honorary member due to the film's enormous success and sympathetic treatment of Native Americans.

Following the phenomenal success of *Dances with Wolves,* Costner's star could not be any higher and his name became a box office guarantee. His starring role in the 1991 action-adventure *Robin Hood: Prince of Thieves* was a case in point. Playing the legendary English outlaw, the film was a box office hit, grossing over US$390 million worldwide despite receiving mixed reviews from critics. Similarly, his other 1991 film *JFK,* a political thriller about the assassination of President John F. Kennedy directed by Oliver Stone, was also a box office success. Portraying New Orleans District Attorney Jim Garrison, Costner delivered a compelling performance that anchored the complex and controversial *JFK.* Ebert praised that "Costner, in the central role, brings all of his believability and likability and dogged determination to the character of Garrison." *JFK* enjoyed considerable success, earning multiple Oscar and Golden Globe nominations (including a Golden Globe nomination for Costner under the category of Best Performance by an Actor in a Motion Picture - Drama) and taking in over US$205 million globally.

In 1992, Costner produced and starred opposite late superstar Whitney Houston in *The Bodyguard,* a romantic thriller about a former Secret Service agent hired to protect a famous singer. The film was Houston's cinematic debut and the heat generated by the two superstars made *The Bodyguard* an inevitable, massive box office hit. The film generated over US$411 million in box office earnings worldwide, and the chemistry between Costner and Houston, combined with the film's iconic soundtrack, made *The Bodyguard* a cultural phenomenon at the time.

Costner's next film *A Perfect World* (1993), was a comparably low-key crime drama co-starring (and directed by) fellow Western icon Clint Eastwood. In this crime drama, Costner played an escaped convict who forms an unlikely bond with a young boy whom he takes hostage. The film was ably directed by Eastwood and well-received by critics, with Costner's and Eastwood's deep and complex performances earning particular praise. It was also a moderate hit, grossing over US$135 million worldwide.

BOX OFFICE MISSTEPS

Despite becoming one of the biggest stars in Hollywood and experiencing sustained success in the early 90s, Costner soon faced several setbacks in his career during the mid-90s. 1994's star-studded Western *Wyatt Earp* was the first massive box office misstep for Costner. Produced by Costner, co-starring Dennis Quaid and Gene Hackman, and directed by long-time collaborator Kasdan, the film was a commercial and critical dud. It only earned US$25 million from a budget of US$63 million.

However, Costner's nadir really came with 1995's post-apocalyptic adventure *Waterworld.* Following the failure of *Wyatt Earp,* Costner desperately needed *Waterworld* to be a hit as he was again deeply involved in production as both producer and star. Unfortunately, the movie was beset by a series of problems from the get-go, from major creative disagreements and heavy production costs to unpredictable







weather conditions that resulted in shooting delays. These issues caused the film's budget to balloon to an estimated US$175 million, making *Waterworld* one of the most expensive films ever made at the time.

Waterworld's inflated budget also caused other unforeseen problems. It resulted in a torrent of bad press, which took a heavy toll on the film. Reportedly, when the press got wind that the film was already over budget before shooting had even begun, the studio banned the press on set out of fear that the reporters may cause even more negative publicity. Unimpressed, the press then started a relentless attack on the movie, resulting in bad word of mouth which spiralled rapidly. It was estimated that this may have cost the film about US$50 million in box office takings.

Ironically, when *Waterworld* came out, many prominent critics did not rate the film too badly. They were also cognisant that the bad press surrounding the film's budget might have distracted from the movie's actual quality. No matter, *Waterworld* was still labelled a box office bomb upon its release and the film has continued to cast a long shadow over Costner's career. Many are unaware that, over time, *Waterworld* did eventually turn a profit and Costner has remained fiercely proud of the film.

Costner partially redeemed himself when he reteamed with *Bull Durham* director Ron Shelton for the charming romantic sports comedy *Tin Cup* (1995). The film was a moderate box office success (over US$53 million earned) and it was warmly received by critics, with Ebert noting on Costner's charm and Berardinelli praising Costner's and co-star Rene Russo's easy, natural chemistry. Costner even received a Golden Globe nomination for Best Performance by an Actor in a Motion Picture - Comedy or Musical for his role. However, the redemption was short-lived. Costner's next film *The Postman* (1997), another post-apocalyptic epic that he produced, directed and starred in, was another major critical and commercial failure.

Adapted from the same-named 1985 novel by David Brin, *The Postman* was another expensive production which failed to earn back its budget. Costing an estimated US$80 million, it earned a mere US$17 million. Just like *Waterworld,* the production was beset by a number of problems, including huge production costs and creative differences within the crew. Some crew members even dubbed the film "Dirt World" in jest, referencing the problems *Waterworld* faced.

Interestingly, Costner gave up starring in the Harrison Ford-fronted mega-blockbuster *Air Force One* (1997) in order to commit to *The Postman.* The role of POTUS (President of the United States) in *Air Force One* was actually written specifically for Costner. In fact, Costner had helped to develop the action film with Beacon Communications and writer Andrew W. Marlowe in 1996. However, he eventually ended up passing on the film because of work delays with *The Postman.* Costner then called Ford personally to offer him the role. Ford accepted it and the rest is history. In fact, Ford has always thanked Costner in interviews subsequently for his kind gesture.

REDISCOVERING SUCCESS

Following *The Postman,* Costner took a hiatus of two years to recalibrate his approach to moviemaking. He returned to take on a diverse range of projects after his short break. In 1999, Costner started his comeback with the romantic tearjerker *Message in a Bottle.* Banking on his innate likeability, Costner also brought a melancholy that suited the material. *Message in a Bottle* grossed over US$118 million worldwide and enjoyed effusive praise. His next projects, the romantic baseball drama *For Love of the Game* (1999), the Cuban Missile Crisis drama *Thirteen Days* (2000), the Elvis-themed crime action flick *3000 Miles to Graceland* (2001) and the pseudo-romantic supernatural thriller *Dragonfly* (2002) were less successful commercially, but he displayed an impressive willingness to take on different roles.

In 2003, Costner revisited his favourite stomping ground - the Western - by producing, directing and starring in *Open Range* (2003). The movie, about a former gunslinger being forced to take up arms again when he and his cattle crew are threatened by a corrupt lawman, was praised for its direction, performances, and its revisionist approach to the classic Western genre. Treading in familiar territory, Costner never missed a step. Ebert noted that Costner made *Open Range* "an imperfect but deeply involving and beautifully made Western." Costner's adept handling of the movie's sweet romantic arc and brutal climatic shootout were also highly praised. Overall, *Open Range* is a highly-watchable modern Western entertainment. Despite a modest budget of around US$22 million, it made over US$68 million. The film's success paved the way for further triumphs over the coming years.

Costner's revival continued afoot with his next few movies. 2005's pair of romantic comedies *The Upside of Anger* and *Rumour Has It…* both showcased Costner's effortless charm, and became box office and critical winners. As Ebert succinctly noted: Costner is "a natural actor with enormous appeal," and his everyman appeal was instrumental in the success of these films. 2006's action-adventure *The Guardian,* about the US Coast Guard Rescue, also came up tops in the box office, grossing close to US$100 million globally. With his string of hits, Costner was now truly back in the fold of Hollywood's big hitters. These successes also somewhat emboldened his choice of roles as he started taking on unusual projects that we may not normally associate him with.

EMBRACING TELEVISION

One of the more unusual projects Costner took on during this period was the 2007 serial killer thriller *Mr. Brooks* in which Costner portrayed a well-respected businessman (Portland's Man of the Year no less) who also happens to be a long-time serial killer on the loose. Tense and engaging, Costner put on a compelling performance that made the rather campy premise highly intelligent and watchable. Berardinelli called Costner "very good" and noted that "age has allowed his talent to emerge." *Salon's* Stephanie Zacharek also commented that "Costner seems to be having some fun playing the respectable guy with an evil secret."



2008's *Swing Vote,* a comedy with the unusual premise of how one man's vote ends up deciding the US Presidential Election, and 2010's *The Company Men,* about corporate downsizing affecting company men, saw Costner continue to have fun with his roles. He played two different types that both leaned heavily on his everyman appeal. In *Swing Vote,* he was a drunk loser who suddenly has the nation's attention thrust upon him due to his decisive vote. When he realises that his behaviour could end up embarrassing his daughter, he cleans up quickly and impressively. While Costner only had a supporting role in *The Company Men* - playing an average "working man" in construction, it was a vital and influential character who helped to reform the greedy corporate men. As *Salon's* Andrew O'Hehir observed, *The Company Men* "looks like the most fun Costner has had on-screen in many years," and was a reminder that "he's quite a talented and enjoyable actor when not called upon to carry an entire movie with his stereotypical twinkle and manliness."

In 2012, Costner made his first serious foray into television when he took on the lead role of "Devil" Anse Hatfield, opposite Bill Paxton, in the three-part TV mini-series *Hatfields & McCoys.* The series focused on the infamous Hatfield-McCoy Feud in West Virginia-Kentucky during the late 19th century that became a part of American folklore. As the patriarchs of the warring families whose resentment of each other started from the Civil War and escalated through a series of unrelated incidents and disapproved relationships, Costner and Paxton were the heart of the series. However, Costner dominated the series with his presence, with his influence felt even when he is not on-screen. It probably helped that Costner was working in his favoured Western domain, and he was extremely comfortable with the genre's tropes. For his work in *Hatfields & McCoys,* Costner won the Golden Globe for Best Performance by an Actor in a Miniseries or Motion Picture Made for Television in 2013, and a Primetime Emmy for Outstanding Lead Actor in a Miniseries or a Movie in 2012. They were his first major awards since his wins at the Oscars and the Golden Globes for *Dances with Wolves* in 1991.

BACK TO THE MOVIES

Hatfields & McCoys proved to be a short, but successful diversion into television, even if it likely paved the way for Costner to take on the even more successful *Yellowstone* later. In the intervening years, Costner went back to working in the movies. Ironically, he would not take on another Western in the next few years. For his next film project, Costner took on the supporting (almost cameo) role of Jonathan Kent, Superman's Earth-bound foster father, in the DC Comics superhero origin story *Man of Steel* (2013). It was a role he

would reprise even more briefly in the DC superhero mash-up *Batman v Superman: Dawn of Justice* (2016). Released at the peak of superhero fever, *Man of Steel* and *Batman v Superman: Dawn of Justice* were commercial juggernauts that earned over US$670 million and US$874 million respectively. In between these movies, Costner took on a mix of projects that ranged from high octane actioners like *Jack Ryan: Shadow Recruit* and *3 Days to Kill* (both 2014) to sports dramas like *Draft Day* (2014) and *McFarland, USA* (2016).

Post-*Batman v Superman: Dawn of Justice,* Costner also gave solid supporting performances in the highly acclaimed, award-nominated dramas *Hidden Figures* (2016) and *Molly's Game* (2017). *Hidden Figures* is a biographical drama about the discrimination three female African-American mathematicians faced while working in NASA during the 60s, despite playing a pivotal role in the Americans winning the space race against Russia. A surprise US$235 million hit, Costner was described as "a perfect fit" for the role of a tough, but fair supervisor by *RogerEbert.com's* Odie Henderson, while Berardinelli commented that Costner "continues to show growth in front of the camera, evincing layers we never saw when he was a dominant force at the box office." He called Costner's performance "one of the movie's pleasant surprises." Similarly, *Molly's Game,* based on a true story about how an Olympic-class skier ran the world's most exclusive high-stakes poker game and became an FBI target, saw Costner gave another assured supporting performance. From these roles, it was clear that as Costner became older, he was becoming more comfortable lending his (considerable) support from the sidelines, instead of being the main man - even though his days as a cinematic heartthrob are far from over.

YELLOWSTONE

In 2018, Costner made an unexpected return to television when he agreed to star in the Paramount Network series *Yellowstone,* a modern Western drama about a ranching family in Montana. Created by feted screenwriter/director Taylor Sheridan, the show - now into its fifth season - has become a cultural phenomenon in the US. It is one of the most watched TV shows in the US, with millions following each episode with keen fervour. Yet, *Yellowstone* might not even have been greenlighted if Costner had not signed on right from the start to play John Dutton, the patriarch of the Dutton family and the central character in the expansive Western series. It was Costner's involvement which helped to convince studio executives to fund the project. Despite early mixed-to-negative reviews, Costner eventually earned praise for his portrayal of Dutton, even winning the Golden Globe for Best Performance by an Actor in a Television Series - Drama in 2023. *Yellowstone's* immense popularity has introduced Costner to a whole new generation of younger fans and demonstrated his enduring appeal as an actor. It has also put the Western back onto the map of popular culture.

BEYOND ACTING

From young, Costner's love for storytelling indicated that he was never likely to be satisfied with just performing alone. In addition to his acting career, Costner has also proven himself to be a significant contributor in terms of directing and producing. This is apparent from the magnificent success of his directorial debut in *Dances with Wolves.* From there, he also directed *The Postman* and *Open Range.* As a producer, Costner has been much more prolific, getting involved in a variety of projects, ranging from film to television. Indeed, Costner served as a producer on *Hatfields & McCoys* and *Yellowstone* as well as the blockbusters *Robin Hood: Prince of Thieves* and *The Bodyguard.*

What many may not know about Costner is that he also has a deep passion for music and is, in fact, quite a talented musician. Costner trained classically on the piano for about four years and also got his music from his childhood days in church. He founded the country rock band Kevin Costner & Modern West in 2005, where he is singer, songwriter and bandleader, and the band started performing since 2007. For Costner, the idea of being in a band had been a long time coming. According to him, he always thought that music could build a stronger, more personal moment for him and he confessed, "For a long time now, I have felt the need to connect with people in a more meaningful way than just the autograph." Kevin Costner & Modern West has released several albums, including *Untold Truths* in 2008, *Turn It On* in 2010 and *From Where I Stand* in 2011. The band is also inspired by Costner's work in TV, releasing *Famous for Killing Each Other: Music from and Inspired by Hatfields & McCoys* in 2012, and *Tales from Yellowstone* in 2020. In fact, the *Hatfields & McCoys* album even reached #14 on the US Country charts.

Besides releasing albums, the band also tours extensively and has a dedicated fanbase. Costner has had some interesting and unusual experiences with his band. For example, in 2009, he experienced first-hand a tragedy that occurred at Canada's biggest music festival, Big Valley Jamboree, in Alberta. His band and special guests, The Alternate Routes, were on tour and due to perform on stage at the festival when a severe thunderstorm struck, causing the stage and stands on the main stage to collapse. A young woman was killed and forty wounded.

After hearing about the woman's death, Costner honoured her memory by helping to raise funds for her two young sons. Costner donated US$10 from every ticket they sold during their show on 25 August, and placed the money into a trust fund for the kids. In addition to this, he also auctioned himself off as a dinner date to the highest bidder and donated the funds to the trust as well.

PERSONAL LIFE

As a Hollywood A-lister, Costner's personal life has often been in the public eye, with his relationships and family life receiving significant media attention. And Costner has had a colourful love life. His first wife was Cindy Silva, his college sweetheart, whom he met on the set of a commercial when they were both college students in the 1970s. Following a three-year-long engagement, they tied the knot in 1978, which marked the beginning of their 16-year-long marriage. They have three children together (Annie, Lily and Joe).





The couple's marriage ended in 1994 due to irreconcilable differences and Costner's demanding work schedule.

In 1996, Costner had a brief year-long relationship with businesswoman Bridget Rooney after his divorce. The relationship resulted in a son, Liam, but the couple decided to part ways despite agreeing on their shared commitment as parents. Costner was then briefly linked to the likes of supermodel Elle MacPherson and former model Carla Bruni, before meeting Christine Baumgartner, a model and handbag designer, in 1998. The couple first crossed paths at a California golf course where they were instantly attracted to each other. Their affections stood the test of time, leading to a romantic proposal in 2002, before finally culminating in nuptial bliss in 2004. The couple has three children (Cayden, Hayes, and Grace) together, but after 18 years, Baumgartner filed for divorce in 2023.

PHILANTHROPY AND ADVOCACY

Costner is known for his wide-ranging philanthropic efforts and advocacy work. He has supported various charitable organisations and causes over the years, including care for children with cancer and children in need, environmental conservation, and Native American rights. For example, he is known for his long-time support of the Little Star Foundation, a non-profit organisation dedicated to providing long-term care for children with cancer and children in need. Besides donating to the cause, Costner has also made it his mission to gather support and drive worldwide donations to the foundation.

In terms of environmental advocacy, Costner has long been an advocate for water conservation. For instance, in the wake of the BP oil spill in 2010, he became involved in efforts to clean up the disaster. Costner's company, Ocean Therapy Solutions, developed a centrifuge technology designed to separate oil from water, which BP bought to help handle the infamous oil spill - one of the worst environmental catastrophes in American history. Costner reportedly invested more than US$20 million of his own money and spent years to develop the technology. Costner is also a backer of Water Planet, Inc, which develops smart membrane products for water treatment.

Costner's work on *Dances with Wolves* sparked a lifelong commitment to supporting Native American communities. In 2004, Costner opened "Tatanka: Story of the Bison" near Deadwood, South Dakota. The US$5 million project, financed by Costner, is a tribute to the American bison and the Lakota people. Costner has said that his primary goal in creating the Bison Interpretive Centre is to educate non-Natives about some of the truths of the American West. The centre features graphics and text about the bison and the relationship of the Plains Indians to the animals - historically hunting, and now raising them for food and clothing, among other things. "Tatanka" has received praise from both Natives and non-Natives.

HORIZON: AN AMERICAN SAGA

Costner's contributions to the Western genre have been immense, and he has remained fiercely loyal and very important to the genre. Just as *Dances with Wolves* breathed new life into a genre that seemed to be dying, *Yellowstone's* huge popularity has revigorated the Western for the 21st century. Costner's modern approach to the Western is both respectful of its traditions and innovative in its storytelling. It offers a more nuanced and empathetic portrayal of Native American culture and frontier life for a younger generation.

Following *Yellowstone's* huge success, Costner has taken an even bigger plunge into the cinematic world of the Western in a bid to revive the genre. In August 2022, he started production on *Horizon: An American Saga,* a passion project which he produces, co-writes, directs and stars in. Investing about US$38 million of his own money, the first movie in the four-part Western epic series was finally released in June this year. It did not go well.

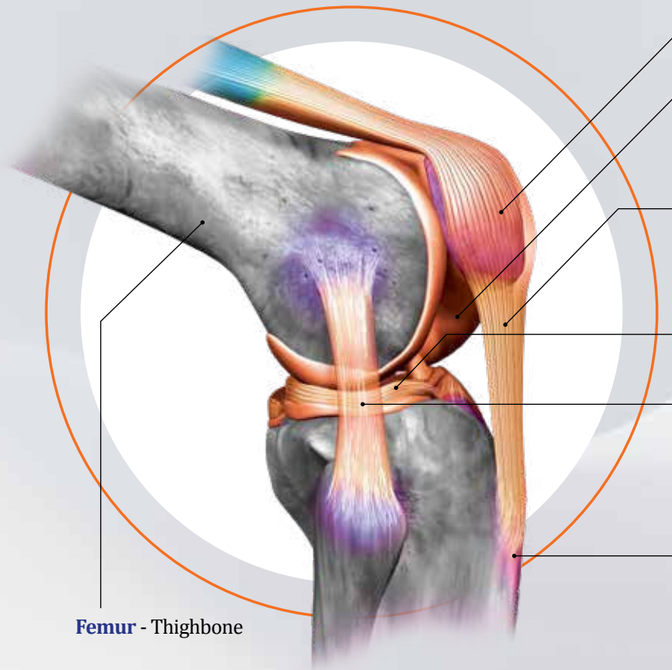
Horizon: An American Saga - Chapter 1, which cost US$100 million, was met with lukewarm responses from both critics and audiences. While some reviewers have praised the film for its old-fashioned charms, cinema audiences have been less receptive to the movie's appeal. The movie has taken only US$32 million in box office earnings so far. This has resulted in *Horizon: An American Saga - Chapter 2,* the next film in the series, being pulled from its original August release. There has even been talk that Costner may face a severe financial crisis, and the film's dismal box office performance has delayed the production of future instalments (Parts 3 and 4) of the epic series. Not all is lost. Netflix has reportedly offered to acquire and fund the series, and Costner is still likely to be able to see his pet project to completion. It would also be unfair to judge the quality of the entire series based on the merits of one movie alone, as we have not seen how the full story pans out. Can Costner revive the Western genre once again with *Horizon: An American Saga?* Hollywood awaits with bated breath. PRIME

PRIME INFOGRAPHICS

Motion Junction

Anatomy of a Knee Joint

Joints are the areas where two or more bones meet. Most of them (i.e., joints in the skull do not move) are mobile, which allows the bones to move. Joints consist of the following:



Patella - Kneecap

Cartilage - This tissue covers the bone surface at a joint, and keeps the bones from rubbing directly against each other

Tendons - A tough connective tissue on each side of a joint which attach to muscles controlling movement of the joint, connecting muscles to bones.

Meniscus - Curved part of cartilage in the knees and other joints.

Ligaments - Tough, elastic bands of connective tissue which surround the joint to give support and limit the joint's movement. Ligaments connect bones together, forming the joint.

Tibia - Shin bone

Femur - Thighbone



Types of Joints:



Ball & Socket Joints
(Hip and Shoulder Joints)
Most mobile type of joint. Allow movement in many different directions.



Ellipsoidal Joints
(Base of the Index Finger)
Allow bending and extending.



Gliding Joints
(Some bones in wrist and ankles)
Flat bones that are held together by ligaments, which move by gliding against each other.



Hinge Joints
(Knee and Elbow)
Enable movement similar to the way a hinged door moves.



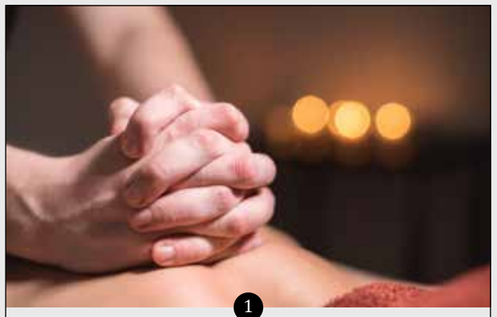
Experience Wellness at Oasia

Recharge, Refresh, and Refuel Your Mind, Body and Soul with an Oasia Wellness Getaway

Oasia Hotel Downtown, Singapore by Far East Hospitality has unveiled an all-new package - the Oasia Wellness Getaway. Designed to guide guests through a journey of holistic wellness with a city stay and a resort spa experience, the package invites you to go on a transformative 3D2N spa-cation that perfectly blends city exploration and island serenity. From unwinding with the Club Stay Experience at Oasia Hotel Downtown to a pampering spa therapy at Oasia Spa at Oasia Resort Sentosa, you can embark on a personalised wellness journey that offers the best of both worlds.

Rejuvenating Spa Experience

Specially crafted as an exclusive package offering, an invigorating spa experience at Oasia Spa on Sentosa Island awaits you on the second day of your stay experience. The holistic wellness experience starts with a seamless two-way complimentary luxury transfer between the hotel and spa to ensure a tranquil arrival. You can opt to elevate your transfer experience with an aromatherapy eye mask to relax your eyes with acupressure and aromatherapy. Upon arrival, you can choose from the spa's array of six different 60-minute body massages, including:



1

Oasia Signature Massage

Blends Thai, Shiatsu and Indian techniques for deep relaxation.

Aromatic Body Massage

2 *Relieves tension with gentle pressure and aromatherapy enhanced with KOTOSHINA tea seed massage oil to nourish the skin.*

Detox Bamboo Massage

3 *Promotes circulation and lymphatic drainage as bamboo rolls over the body, with KOTOSHINA tea seed massage oil as an antioxidant.*

Muscle Revitalisation Massage

4 *Firm pressure targets deep muscle layers to release knots and chronic pain, complemented by KOTOSHINA tea seed oil-infused body butter for skin nourishment.*

Pre-Natal Massage

5 *Eases stress on weight-bearing joints, and reduces pelvic and hip pain. This massage provides relief for expectant mothers between gestation weeks 12 to 36.*

Post-Natal Massage

6 *Soothes sore spots, eases muscle tension, improves blood flow and oxygenation, eliminates toxins, and aids in healing for new mothers.*

You will also receive complimentary admission to Sentosa Island, and access to the sauna, shower and changing facilities at Oasia Spa as part of the experience. During your stay at Oasia Hotel Downtown, you can further recharge by partaking in an array of complimentary daily wellness activities as part of your Club guest privileges. From serene practices like yoga and sound healing, to exhilarating sessions such as HIIT and Aquaspin, you can enjoy meticulously curated activities that are conducted by industry specialists to accommodate various stages of fitness and mindfulness.

Club Room

As part of the package, you can look forward to unwinding in Oasia Hotel Downtown's Club Room, which offers a comfortable environment complete with a bathtub. Enhanced with complimentary in-room wellness drinks and natural





bath amenities from renowned Australian brand Biology, you are guaranteed to experience true rejuvenation. Each room is also equipped with wellness amenities, including a yoga mat, as well as a Wellness Channel accessible through the in-room TV. This channel features various guided workout options for you to participate at your own time and pace.

Exclusive Club Lounge Privileges

Club guest status also grants you exclusive access to the Club Lounge located at Level 21, with an idyllic infinity pool that offers a bird's-eye view of the city. In the morning, the Club Lounge serves complimentary breakfast, followed by non-alcoholic refreshments throughout the day, complete with healthier snacks and superfoods customised to dietary preferences. In the evenings from 6-8pm, you can relax with a complimentary 10-minute neck and shoulder massage on selected days, and enjoy complimentary cocktails and canapés.

Price

Begin your city-island wellness journey from $888 nett. Your package will include:

- Two-night stay in a Club Room for two pax at Oasia Hotel Downtown, inclusive of Club benefits.
- Complimentary breakfast, all-day refreshments and evening cocktail at the Club Lounge.
- Choice of a 60-minute body massage (from the six listed below) at Oasia Spa on Sentosa Island for two pax, with use of sauna (including shower and changing facilities).
  1. Oasia Signature Massage
  2. Aromatic Body Massage
  3. Detox Bamboo Massage
  4. Muscle Revitalisation Massage
  5. Pre-Natal Massage
  6. Post-Natal Massage
- Complimentary two-way transfer (between Oasia Hotel Downtown and Oasia Spa) with free admission to Sentosa Island.
- Complimentary two pieces of laundry per night.
- Complimentary early check-in from 12 noon or late check-out till 2pm.

Book Period: Now till 22 December 2024
Stay Period: Now till 29 December 2024
Booking Link: www.oasiahotels.com/en/deals/Oasia-Wellness-Getaway

To book, use promo code: OGETAWAY

Note: Spa treatment and two-way transfers will be arranged on the second day of stay period by default. Terms and conditions apply. A minimum seven-day advance booking is required for package and spa treatment.



Keeping Your Cool

Understanding Anger and Its Management

Anger is a natural and necessary emotion that signals when something is wrong or when we perceive a threat. It is neither good nor bad. It simply conveys a message that a situation is upsetting, unjust or threatening. Hence, it is perfectly normal to feel angry when you believe you have been mistreated or wronged.

But anger becomes a problem when you express it in a way that harms yourself or others. When your anger becomes uncontrollable or chronic, it can lead to significant problems in your personal and professional life. Venting your anger is much more likely to have a negative impact on the way people see you, impair your judgment and get in the way of success. It can also lead to health problems.

It is important to manage our anger and the aggression that arises from it. While we cannot get rid of or avoid the things that enrage us, nor can we necessarily change them, we can learn to control our reactions to achieve a better outcome. Effective anger management involves recognising the triggers, understanding the different aspects of anger, and employing strategies to manage it constructively. Let us take a deeper look at the nature of anger, its effects and various techniques to manage it effectively.

THE NATURE OF ANGER

Anger is an emotional response characterised by feelings of tension, frustration and hostility. It varies in intensity from mild irritation to intense fury and rage. Like other emotions, it is accompanied by physiological changes. When you get angry, your heart rate and blood pressure go up as the adrenal glands release adrenaline, preparing your body for a "fight or flight" response. These changes are part of the body's natural defense mechanism. While anger may sharpen and focus one's mind, it can also cloud one's judgment and lead to impulsive decisions. Anger can be triggered by both internal and external factors, ranging from personal frustrations to perceived injustices or threats. The experience of anger is universal, but its expression can vary widely across individuals and cultures.

The instinctive, natural way to express anger is to respond aggressively as it is a natural, adaptive response to threats. It inspires powerful and often aggressive feelings and behaviours, which allow us to fight and defend ourselves when we are attacked. A certain amount of anger is necessary to our survival, but uncontrolled aggressive anger is often harmful. In everyday life, we do not physically lash out at every person or object that irritates or annoys us. Laws, social norms as well as common sense place limits on how far we allow our anger to take us. Hence, people use a variety of conscious and unconscious processes to deal with their angry feelings. The three main approaches are expressing, suppressing and calming.

Expressing your angry feelings in an assertive - not aggressive - manner is the healthiest way to express anger. To do this, you have to learn how to make clear what your needs and feelings are, and how to get your needs met, without hurting others. Being assertive does not mean being pushy or demanding. It means being respectful of yourself and others.

> Unexpressed anger can result in other problems. It can lead to pathological, indirect expressions of anger (passive anger). These include getting back at people indirectly without telling them the reason, sarcasm, sullenness and deliberate procrastination. In such cases, one may appear calm on the surface, but may be prone to perpetually cynical and hostile behaviour. Passive anger is not a constructive way to express anger. It can harm relationships.



Anger can also be suppressed, and then converted or redirected. This happens when you hold in your anger, stop thinking about it and focus on something positive. The aim is to inhibit or suppress your anger, and convert it into more constructive behaviour. The danger in this type of response is that without outward expression, anger can turn inwards. This may affect one's health and well-being as inward anger may result in hypertension, high blood pressure or depression. Unexpressed anger can result in other problems. It can lead to pathological, indirect expressions of anger (passive anger). These include getting back at people indirectly without telling them the reason, sarcasm, sullenness and deliberate procrastination. In such cases, one may appear calm on the surface, but may be prone to perpetually cynical and hostile behaviour. Passive anger is not a constructive way to express anger. It can harm relationships.

Finally, you can also deal with anger by calming down inside. This means not only controlling your outward behaviour, but also controlling your internal responses - taking steps to lower your heart rate, calm yourself down and let your angry feelings subside.

EFFECTS OF UNMANAGED ANGER

Unmanaged anger can have detrimental effects on various aspects of life. In terms of physical health, chronic anger can lead to health issues like hypertension, heart disease and a weakened immune system. Other short- and long-term health problems that have been linked to unmanaged anger include headaches, digestion problems, skin problems and even stroke.

Persistent anger can also contribute to a number of mental health problems. Anger, by itself, is not classified as a mental disorder. However, it is associated with various mental health conditions like:

- Antisocial personality disorder
- Anxiety
- Attention deficit hyperactivity disorder
- Bipolar disorder
- Borderline personality disorder
- Conduct disorder
- Depression
- Intermittent explosive disorder
- Narcissistic personality disorder
- Obsessive-compulsive disorder
- Oppositional defiant disorder
- Schizophrenia



Explosive anger can strain relationships with family and friends. It can lead to conflicts and resentment. It can cause lasting scars in the people you love the most and make it hard for others to trust you, speak honestly or feel comfortable with you. When anger goes too far and is not controlled, it can result in verbal, emotional or physical abuse. Abuse can take the form of name-calling, belittling, hitting or otherwise causing harm to the other person. It is especially damaging to children. No form of abuse is acceptable in any relationship.

It is also common for employees to experience anger and other negative emotions in the workplace. The reasons for such feelings can be a conflict with a colleague, displeasure with company policies, nepotism or other things like unrealistic deadlines. Uncontrolled anger in the workplace can result in decreased productivity, poor teamwork and even job loss.



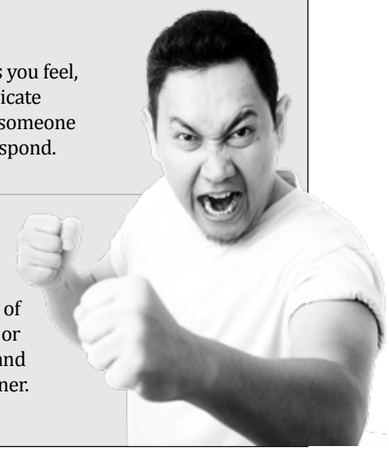
MYTHS AND FACTS ABOUT ANGER

MYTH I should not "hold in" my anger. It is healthy to vent and let it out.

FACT While it is true that suppressing and ignoring anger is unhealthy, venting is no better. Anger is not something you have to "let out" in an aggressive way in order to avoid blowing up. In fact, outbursts and tirades only fuel the fire and reinforce your anger problem.

MYTH I cannot help myself. Anger is not something you can control.

FACT You cannot always control the situation you are in or how it makes you feel, but you can control how you express your anger. You can communicate your feelings without being verbally or physically abusive. Even if someone is pushing your buttons, you always have a choice about how to respond.



MYTH Aggression and intimidation can help me earn respect.

FACT Respect does not come from bullying others. People may be afraid of you, but they would not respect you if you cannot control yourself or handle opposing views. They will be more willing to listen to you and accommodate your needs if you communicate in a respectful manner.

NATURALLY ANGRY?

Are there people who are really just more "hot-headed" than others, who get angry more easily and more intensely than the average person? Actually, there are, but why is that so? People who are more easily angered generally have a low tolerance for frustration, meaning they feel they should not have to be subjected to frustration, inconvenience or annoyance. They are unable to take things in stride, and they are particularly infuriated if the situation seems somehow unjust: for example, being corrected for a mistake.

What makes these people this way? A number of things: one cause may be genetic or physiological. There is evidence that some children are born irritable, touchy and easily angered, and these signs are present from a very early age. Another may be socio-cultural. Anger is often regarded as negative. We are taught that it is ok to express anxiety, depression and other emotions, but not anger. As a result, we do not know how to handle or channel it constructively. Research has also found that family background plays a role. Typically, people who are easily angered come from families that are disruptive, chaotic and not skilled at emotional communications.

Conversely, there are also people who do not show their anger in loud spectacular ways, but are chronically irritable and grumpy. Easily angered people do not always curse and display their anger; sometimes, they simply withdraw socially, sulk or get physically ill.

How does one realise if they have an anger issue? Look out for these signs:

- You feel angry often.
- You feel that your anger seems out of control.
- Your anger is affecting your relationships.
- Your anger is hurting others.
- Your anger causes you to say or do things you regret.
- You are verbally or physically abusive.

ANGER MANAGEMENT

Anger management is about learning to suppress your anger. It is not about never getting angry as that is not a healthy or attainable goal. Anger will come out regardless of how hard you try to push it down. Thus, the true goal of anger management is not to suppress feelings of anger, but to understand the message behind the emotion and express it in a healthy way without losing control. When you do so, you will not only feel better, you will also be more likely to get your needs met and be better able to manage conflict in your life, strengthening your relationships.

Effective anger management involves a combination of strategies aimed at reducing the intensity of anger and finding constructive ways to express it. It takes work, but the more you practise it, the easier it will get. And the payoff is huge. It will help you to build better relationships, achieve your goals and lead a healthier, more satisfying life.

RECOGNISING TRIGGERS

The first step in managing anger is to recognise what triggers it. If you have gotten into the habit of losing your temper, take stock of the things that trigger your anger. Understanding the things that trigger your anger (long queues, snarky remarks, excessive workload, biased behaviour, etc.) can help you to plan accordingly. It can help you to take control of your environment and avoid unnecessary aggravation. Look at your regular routine and try to identify activities, times of day, people, places or situations that trigger irritable or angry feelings. For example, you might decide to structure your day differently to help you manage your stress better. Or you might practise some anger management techniques before you encounter circumstances that you usually find distressing. Doing these things can help you to lengthen your fuse so that a single frustrating episode will not set you off.

> Anger management is about learning to suppress your anger. It is not about never getting angry as that is not a healthy or attainable goal. Anger will come out regardless of how hard you try to push it down. Thus, the true goal of anger management is not to suppress feelings of anger, but to understand the message behind the emotion and express it in a healthy way without losing control.





RECOGNISING WARNING SIGNS

While some people might get angry in an instant, there are usually warning signs when your anger is on the rise. Recognising them early can help you to take action to prevent your anger from reaching a boiling point. Think about the physical warning signs of anger that you experience. Perhaps, your heart beats faster, your face feels hot or maybe you begin to curse and remonstrate quietly to yourself. You might also notice some cognitive changes. Perhaps, your mind races or you begin to "see red".

By recognising your particular warning signs, you have the opportunity to take immediate action, and prevent yourself from doing or saying things that create bigger problems. Learn to pay attention to how you are feeling and you will get better at recognising your warning signs.

DEVELOPING COPING SKILLS

There are different coping mechanisms you can use to cope with an angry situation. One of the most common ones used is relaxation techniques. Practices such as deep breathing exercises, meditation, visualisation, using calming words/phrases, progressive muscle relaxation, journal writing and yoga can help to calm the physiological arousal associated with anger. Deep breathing exercises help to improve the oxygen flow to the brain and can result in almost instantaneous relaxation or subsiding of anger. When you feel your anger rising, close your eyes for a few seconds and start counting to 10, while inhaling from your nose and exhaling through your mouth.

Another common anger management technique is cognitive restructuring. This involves changing the way one thinks about situations that provoke anger. If you have a role model or person you respect, consider how they would handle the situation. Doing this can help you to view the situation from a different perspective, assess your reaction more objectively and verbally rehearse your response.

Also, focus on the positive aspects of a challenging situation. Swap negative self-talk like "This is the worst thing that has happened" with something more rational like "This is bad, but it is not the end of the world. I can learn and do better from this." Remind yourself that getting angry is not going to fix anything and it will not make you feel better. Logic always defeats anger, because anger, even when justified, can quickly become irrational. So, use cold hard logic on yourself. This may help you to control your feelings better and disable the influence of anger more effectively.

Learning to express anger assertively rather than aggressively can also improve relationships and reduce conflicts. This involves being honest about your feelings and needs while respecting others' perspectives. The first thing to do if you are in a heated discussion is slow down and think through your responses. Do not say the first thing that comes into your head, but slow down and think carefully about what you want to say. At the same time, listen carefully to what the other person is saying and take your time before answering.

Listen to what is underlying the anger. It is natural to get defensive when you are criticized, but do not fight back. Instead, listen to the reasoning or perceptions underlying the words. It may take a lot of patient questioning, and it may require some breathing space, but do not let your anger or the other person's anger spin the discussion out of control. Keeping your cool can help to keep the situation from escalating into a disastrous one. It is possible to agree to disagree, and you may need someone else to help you resolve the disagreement. Where necessary, ask a trusted third person to act as a go-between, and help you both to get another view on the argument.

Stepping away from a situation that is causing anger is another oft-recommended strategy as it can provide time to cool down and gain perspective. Give yourself a break. Step away from a conflict and regain your compass. And make sure you have some "personal time" scheduled for times of the day that you know are particularly stressful. A few moments of quiet time might help you to feel better prepared to handle what is ahead without getting irritated or angry. This can help to defuse negative emotions, prevent impulsive reactions and allow for more constructive responses.

Lightening up and using humour can also help to defuse anger. You may even gain a different perspective on the situation from this. Use humour to help you face what is making you angry and, possibly, any unrealistic expectations you have for how things should go. Humour can always be relied on to help unknot a tense situation. However, avoid sarcasm as it can hurt feelings and worsen the issue.

Exercise can be a powerful tool for managing anger. Physical activity releases endorphins, which can improve mood and reduce stress. Exercise also allows you to clear your mind. You may find that after a long run or a hard workout, you have a clearer perspective on what was troubling you. So, if you feel your anger escalating, go for a brisk walk, run or hit the gym. Or spend some time doing other enjoyable physical activities. It will help immensely in bringing down your anger.

Last but not least, seek support where necessary in managing your anger. Talk to a trusted friend or family member about what is making you angry. This can provide you with a different perspective and help you feel supported. Having a support network is crucial for managing anger effectively. Open communication with supportive individuals about your challenges and progress can provide emotional support and practical advice.

However, for some individuals, anger management strategies may not be enough. In such cases, seeking professional help can be beneficial. Therapists and counselors can provide support and guidance through various approaches, such as Cognitive-Behavioural Therapy (CBT) and Anger Management classes, which provide structured programmes to help individuals manage their anger issues.

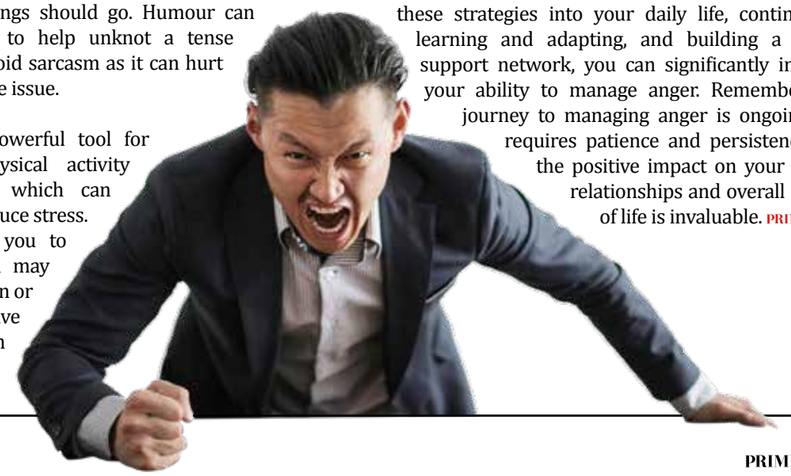
INTEGRATING ANGER MANAGEMENT INTO DAILY LIFE

Effectively managing anger involves integrating anger management strategies into your daily routine so that they become second nature. Here are some things you can do:

- **MORNING** - Start your day with practices that promote calmness and focus. This could include meditation, exercise and positive affirmations to set a positive and resilient mindset for the day.
- **THROUGHOUT THE DAY** - Incorporate small practices throughout your day to maintain balance and manage stress, including short mindful breaks.
- **EVENING** - End your day with practices that promote relaxation and reflection. These may include reflective journaling and relaxation techniques.

CONCLUSION

Effective anger management is essential for leading a balanced and fulfilling life. It involves understanding the nature of anger, recognising triggers and employing a range of strategies to manage it constructively. By integrating these strategies into your daily life, continuously learning and adapting, and building a strong support network, you can significantly improve your ability to manage anger. Remember: the journey to managing anger is ongoing and requires patience and persistence, but the positive impact on your health, relationships and overall quality of life is invaluable. PRIME



Social Dilemma

The Good, the Bad and the Ugly of Social Media



Have you ever thought about how much time you spend on your social media every day? According to research from GWI (formerly GlobalWebIndex), the average internet user spends almost two-and-a-half hours each day using social media platforms. This means that social media accounts for about 35.8% of our daily online activities, meaning that more than one in three internet minutes can be attributed to social media platforms. Out of these platforms, TikTok has the highest average time per user, but YouTube accounts for the greatest overall share of total social media time.

Social media has transformed the way we interact, communicate and even perceive the world. Since the popularisation and proliferation of online platforms like Facebook, Twitter, Instagram, TikTok and LinkedIn, they have become an integral part of our daily lives. They shape our personal relationships, expand our professional networks and influence broader societal trends. But as with any powerful tool, social media comes with its advantages and disadvantages. Let us now look at both sides of the coin, exploring the good, the bad and the ugly of social media.

THE GOOD

Connecting People

One of the most significant benefits of social media is its ability to connect people across the globe. Most of us use social media to talk to friends and family, join in group conversations, or even meet new people. Indeed, social media have brought people closer together. Friends and family can stay in touch regardless of geographical barriers, making it easier to maintain relationships. Social media platforms allow us to make real-time communication through instant messaging, and voice and video calls, as well as share our daily lives with our loved ones through the uploading of photographs and videos.

Fast Information Access

Besides staying in touch with (and making new) friends, social media also provides us with quick and important access to information and research. Social media has revolutionised the way we access information. News spreads rapidly through social platforms like Twitter and Facebook, often even faster than traditional news outlets. They are usually the first media from which we learn about breaking news.

According to a 2022 Pew Centre Research, while a quarter of American adults prefer to get their news via news applications and news websites, there are 12% who prefer to get their news from social media and 6% who prefer podcasts. Indeed, half of the people surveyed admitted that



Social media can negatively impact mental health. A 2018 British study tied social media use to decreased, disrupted and delayed sleep, which is associated with depression, memory loss and poor academic performance. The constant exposure to curated, idealised images and lifestyles, as well as possible cyberbullying and online harassment can cause significant psychological distress.



they had sometimes gotten news from social media, and three in ten say the same of podcasts. This is intrinsically linked to how information quickly gets pushed and disseminated in social media networks. When one person in the network gets a piece of information and pushes it out, everyone else in the circle gets notified immediately. The information can quickly spread out as the others spread the news through their own networks, creating a multiplier effect.

This rapid dissemination of information can help to raise awareness about critical issues, from natural disasters to social justice movements. People can now keep abreast of the latest happenings that concern them and the world. Hashtags and viral posts have also played crucial roles in mobilising public opinion and action in just social causes. They have highlighted the deeds of good Samaritans and made the world just that little bit brighter for the rest of us.

Educational Opportunities

Social media have also enabled greater learning opportunities for everyone. Educational content is widely available on social media. Platforms like YouTube, LinkedIn Learning and even Instagram have become valuable resources for learning new skills, whether for professional development or personal interest, where we can access educational content (such as videos), research papers and even academic journals.

Perhaps, somewhat owing to the pandemic, social media has opened up new learning opportunities for people. Educators and experts share tutorials, lectures and informational content on social platforms that are easily accessible to a broad audience. Online courses, webinars and virtual classrooms are now as common as their physical counterparts. These opportunities allow people to learn from experts in their field, regardless of their location. Social media has also made it easier for people to collaborate with their peers, share ideas and learn from each other.

Professional Networking

In today's digital age, social media have also become a powerful tool for professional networking and career growth. From LinkedIn to Twitter, professionals can leverage their online presence to connect with industry peers, expand their network, and showcase their skills and expertise. Job seekers can connect with potential employers, showcasing their skills and finding new job opportunities. This is a boon for job seekers, especially so for introverted young professionals who may have difficulties interacting in large crowds and meeting multiple people a day. It is probably a lot easier to build a professional circle online than in-person for such individuals. Thus, the emergence of digital networking is a dream come true, compared to traditional modes of in-person business card exchanges and etiquette-laden self-introductions.





On the other hand, employers are also increasingly using social platforms to scout for talent and check the professional background of candidates. Social media is now one of the key methods with which employers screen potential hires. According to a survey, 62% of employers admitted that they use social media sites to check on prospective employees. 98% will screen their LinkedIn profiles, 68% will check Facebook, and 26% look at Twitter. Most hiring managers will screen social media at the application stage, before inviting a candidate to interview.

Support Communities

Social media also plays an important role in hosting support communities. A social media community is a group of people who come together online to share common interests and experiences. It can refer to any online group, including forums, chat rooms and social networking sites.

These communities provide members with a sense of belonging and support, which can be particularly valuable for people who feel isolated or alone in real life. In addition, social media communities can be a great source of information and inspiration. Members can share tips, advice and ideas on everything from recipes to relationship advice. Whether one is looking for a shoulder to cry on or some expert advice, there is a good chance one will be able to find it in a social media community. Social media communities provide a sense of connection and support that may be hard for some to find offline. They provide a means of sharing information and insights, as well as seeking comfort for individuals facing similar challenges. This sense of community can be incredibly empowering and reassuring.

Creativity and Self-Expression

Before social media, many people often struggled to express themselves. Some thought their opinions were not valuable and no one would listen to them. Social media changed this. It gave people a platform to share thoughts and connect with others who share the same interests. It gave people a sense of belonging and a voice. Many learned to be more confident, speak up for themselves and embrace their uniqueness.

Indeed, social media can bring people out of their comfort zone by exposing them to different cultures and lifestyles. New ideas and perspectives can challenge assumptions, and help people to learn and explore. For the more open-minded and tolerant, this can spark one's creativity, giving them new ways to express themselves. The availability of supportive communities can also be a place to seek advice, feedback and encouragement.

Business Growth

For businesses, social media is a powerful marketing tool. It allows companies to reach a global audience, better engage with customers, and promote products and services in a cost-effective manner. It can help a business increase brand visibility and generate leads. Social media advertising can be highly targeted, ensuring that marketing efforts reach the intended demographic and gather valuable customer insights, thus enhancing the return on investment.



THE BAD

Privacy Concerns

Back in July 2022, Twitter was hacked and some 200 million user email addresses were posted to the dark web. Then in May 2023, European Union (EU) regulators fined Meta US$1.3 billion for violating EU privacy laws by storing and sending European Facebook users' personal data to US servers. The worst was yet to come. Early this year, security researchers reportedly found a massive database containing no less than 26 billion leaked records on an unsecured page. Dubbed the "Mother of all Breaches", it is considered to be the biggest social media data breach found to date. The database contains sensitive information from several sites including Twitter, Dropbox and LinkedIn.

Our social media accounts usually contain a lot of personal and sensitive information. When users sign up for an account, they have to agree to the terms and conditions, which enable social media platforms to collect data. While some of these data may be shared voluntarily through posts and profile information, a lot of it is released unknowingly through tracking cookies, geofencing and cross-site tracking.

Social media platforms use these data to analyse the market, show targeted advertisements, tailor services and recommend posts. They may also conduct surveys to ask about your interests. These responses are recorded, and companies related to user interests can purchase the data. They will then pay to appear on social media feeds with users matching their products. And if users provide an email or phone number, companies could also use those to share information with users about their products and services.

Health Issues

Social media can negatively impact mental health. A 2018 British study tied social media use to decreased, disrupted and delayed sleep, which is associated with depression, memory loss and poor academic performance. The constant exposure to curated, idealised images and lifestyles, as well as possible cyberbullying and online harassment can cause significant psychological distress.

Furthermore, social media use can also affect users' physical health even more directly. Researchers know the connection between the mind and the gut can turn anxiety and depression into nausea, headaches, muscle tension and tremors.

Spread of False Information

While social media is a powerful tool for disseminating information, it is also a breeding ground for the spread of false information. False information can come in three forms: misinformation, disinformation and malinformation. Misinformation is something inaccurate or purposefully misleading. This could range from rumours to misleading advertising or even satire taken the wrong way. It is not intended to be harmful, but it can do damage. On the other hand, disinformation is designed to be deliberately wrong, sharing outright false information

With the good comes the bad. While social media can play host to support communities, its primary algorithmic design to show users what they want to see (content that aligns with their interests and beliefs) can result in an echo chamber, where users are exposed only to information that reinforces their existing views. Such environments can contribute to societal polarisation, as individuals become less exposed to diverse perspectives and more entrenched in their viewpoints.



as truth. It is designed to cause harm. Malinformation, or malicious information, is false information that is intended to do grievous harm to an individual or organisation. This is a process of deliberately changing content for malicious intent. False information can spread rapidly in social media, often outpacing efforts to correct it. This can have serious consequences, from influencing public opinion and elections to spreading harmful health advice. The rise of deep fakes and AI-generated disinformation have further blurred the line between truth and make-believe, and made it harder for users to discern between the two.

Polarisation

With the good comes the bad. While social media can play host to support communities, its primary algorithmic design to show users what they want to see (content that aligns with their interests and beliefs) can result in an echo chamber, where users are exposed only to information that reinforces their existing views. Such environments can contribute to societal polarisation, as individuals become less exposed to diverse perspectives and more entrenched in their viewpoints.



The EU was so concerned about this threat that they even commissioned a paper on "polarisation and the use of technology in political campaigns and communication." The paper explored how "social media could be polarising European publics inadvertently through design choices and incentives that potentially narrow the diversity of information accessed by individuals while facilitating the dissemination of divisive and emotionally-charged content; and deliberately through the exploitation of loopholes in an attention-driven media ecosystem to stoke divisions and manipulate users."

Impact on Real-World Relationships

Excessive use of social media can strain real-world relationships. People may become more focused on their online interactions than their offline connections, leading to a decline in the quality of face-to-face communication. This can result in feelings of loneliness and social disconnection, despite being constantly "connected". Furthermore, as social media often showcases curated and idealised versions of reality, it can lead to unrealistic relationship expectations as individuals compare their real-life experiences to the carefully crafted images and narratives they see online. Furthermore, text-based communication on social media also lacks the nuances of face-to-face interactions. The absence of non-verbal cues such as tone, facial expressions and body language can result in miscommunication and misunderstandings. Innocent messages can be misconstrued, potentially straining relationships.

Commercialisation and Consumerism

Social media platforms are heavily commercialised, with a constant barrage of advertisements and sponsored content, and the proliferation of mega-popular influencers who flout their wealth to the world. This relentless promotion of consumerism can create unrealistic expectations and pressure to conform to certain lifestyles or standards of success. It can also lead to compulsive buying and financial strain. Younger folks may be especially vulnerable to this as they construct and express their consumer identities around what they see online.

Distraction and Productivity Loss

The addictive nature of social media can be a significant distraction. How many of us find ourselves taking a glance at our mobile phones once in a while to check our social media during work? Social media addiction can affect productivity both in the workplace and in personal life. Frequent notifications and the temptation to check social media updates can disrupt concentration and reduce the efficiency of completing tasks. This can have a cumulative effect, impacting overall performance and well-being in the workplace and beyond.

THE UGLY


BULLYING BULLYING BULLYING

Such cases have further soared after COVID-19 as the pandemic has changed the online habits of the world. For example, during the pandemic, thousands of children became more reliant on the internet to learn, socialise and play, and this was something which internet predators have exploited to coerce more children into sexual activities - sometimes even including friends or siblings over webcams and mobile phones. In fact, more than 36 million reports of online sexual images of children who fell victim to all forms of sexual exploitation and abuse were filed in 2023 to watchdogs by companies such as X, Facebook, Instagram, Google and Whatsapp by members of the public. That equates to one report every single second.

Self-Esteem and Body Image Issues

Social media is arguably one of the greatest factors in the development of self-esteem and body image in modern society. Its grip is especially tight on young people, who are psychologically impressionable, whose bodies are changing and who value the opinions of their peers.

In a 2023 study published in *Computers in Human Behaviour*, it was shown that people whose social media use was increasing were also experiencing more body image concerns. Membership to the higher social media-use subgroups was linked to greater body dissatisfaction, dietary restraint and muscle-building behaviours. The study's results strengthen support for what is already known about the effects of social media on body image.

The culture of comparison fostered by social media can severely damage self-esteem, especially among young users. Constant exposure to highly edited, idealised images can lead to unrealistic expectations about body image, lifestyle and success. The study also confirms that these effects are not only about the amount of time that people are spending on social platforms. It is about how much time one is spending engaging in photo-related activities on social media, including posting pictures and commenting on photographs.



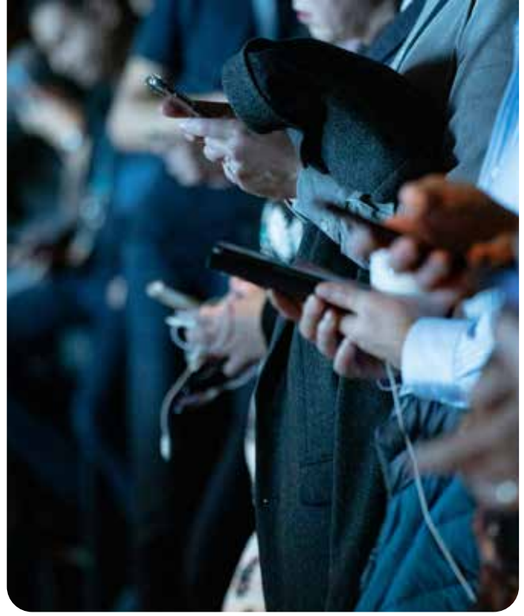
Addiction and Mental Health Crisis

Social media addiction is a growing concern, with platforms designed to be as engaging and addictive as possible. Although the majority of peoples' use of social media is non-problematic, there is a small percentage of users who have become addicted to social networking sites, and engage in excessive or compulsive use. In fact, psychologists estimate that as many as 5-10% of Americans meet the criteria for social media addiction. Social media addiction is a behavioural addiction that is characterised as being overly concerned about social media, driven by an uncontrollable urge to log on to or use social media, and devoting so much time and effort to social media that it impairs other important life areas.

> Social media platforms can become breeding grounds for exploitation and abuse. Predators can use these platforms to groom and exploit vulnerable individuals, particularly minors. Human trafficking and sexual exploitation are significant concerns, with perpetrators using social media to lure, manipulate and victimise people. The platforms' global reach and ease of creating multiple accounts complicate efforts to police and prevent such activities.



The phenomenon of social media addiction can be largely attributed to the dopamine-inducing social environments that social networking sites provide. It was found that social media platforms such as Facebook, Snapchat and Instagram produce the same neural circuitry that is caused by gambling and recreational drugs to keep consumers using their products as much as possible. Studies have shown that the constant stream of retweets, likes and shares from these sites cause the brain's reward area to trigger the same kind of chemical reaction seen with drugs like cocaine. In fact, neuroscientists have compared social media interaction to a syringe of dopamine being injected straight into the system.



Over time, this addiction can lead to a range of mental health issues, including anxiety, depression and social isolation. The endless scrolling and instant gratification can also impact cognitive functions, reducing attention spans, and affecting the ability to engage deeply with tasks or relationships.

BALANCING THE GOOD AND BAD

Given the profound impact of social media on various aspects of life, it is essential to strike a balance between its advantages and disadvantages. Here are some strategies to manage social media use effectively:

1. Set Boundaries

Establishing clear boundaries for social media use can help to mitigate its negative effects. This includes setting specific times for checking social media, limiting the duration of use, and ensuring that it does not interfere with work, study or personal relationships.

2. Curate Your Feed

Being selective about whom you follow and the content you engage with can help to create a more positive social media experience. Unfollowing accounts that cause stress or anxiety, and following those that inspire and uplift can make a significant difference.

3. Fact-Check Information

To combat misinformation, it is crucial to verify the information before sharing it. Relying on reputable sources and being sceptical of sensationalist content can help to reduce the spread of false information.

4. Prioritise Real-World Interactions

Ensuring that social media does not replace real-world interactions is vital. Prioritising face-to-face communication and spending quality time with friends and family can help to maintain healthy offline relationships and reduce feelings of loneliness.

5. Take Digital Detoxes

Regular digital detoxes, whereby one takes a break from all social media platforms, can be beneficial for mental health. These breaks can help to reset habits, reduce dependency and provide a fresh perspective on social media use.



6. Use Privacy Settings

Taking advantage of privacy settings on social media platforms can help to protect one's personal information. Adjusting settings to control who can see your posts, personal details and online activity can reduce the risk of privacy invasion and cybercrime.

7. Seek Support When Needed

If social media use is causing significant distress, it may be helpful to seek support from friends, family or professionals. Talking about experiences and finding coping strategies can alleviate the negative impact on mental health.

DOUBLE-EDGED SWORD

Social media is a double-edged sword, offering immense benefits while posing substantial risks. Its ability to connect, inform and entertain is unparalleled, but the challenges it presents cannot be ignored. By understanding the good and bad (and of course, ugly) of social media and adopting strategies to manage its use, individuals can harness its power while minimising its drawbacks. As society continues to navigate the digital age, a balanced and mindful approach to social media will be key to leveraging its potential for positive impact while safeguarding against its pitfalls. PRIME

Into the Fold

Origami: The Mathematics, Science and Art of Paper Folding

Origami, the ancient Japanese art of paper folding, is derived from the Japanese words "ori" (folding) and "kami" (paper). It is believed to have originated in Japan over a thousand years ago when paper was first introduced to Japan by Chinese monks back in the 6th century. Initially, paper was a luxury item only used for religious and ceremonial purposes, where folded paper (known as "gohei") symbolised purity and were used as offerings to deities. By the Edo period (1603-1868), paper had become more accessible and the art of paper folding began to flourish as a recreational activity among the general populace. Traditional designs such as the crane, frog and samurai helmet emerged during this period and have become iconic representations of Japanese culture.

The art of paper folding was not always known as origami. Back in the olden days, it was called orikata, meaning folded shapes. It was a vital skill for aristocrats and high-ranking soldiers in Japan. Several styles of formal gift/ritual wrappings were developed for such things as money, poetry and fans. The transition from the term orikata to origami came into use in 1880.

Since then, this ancient Japanese art has become increasingly complex over the years. The applications for origami principles have expanded into architecture, installation art, robotics design, engineering and even medical solutions. Indeed, it has evolved from a simple pastime to a profound artistic and scientific pursuit.

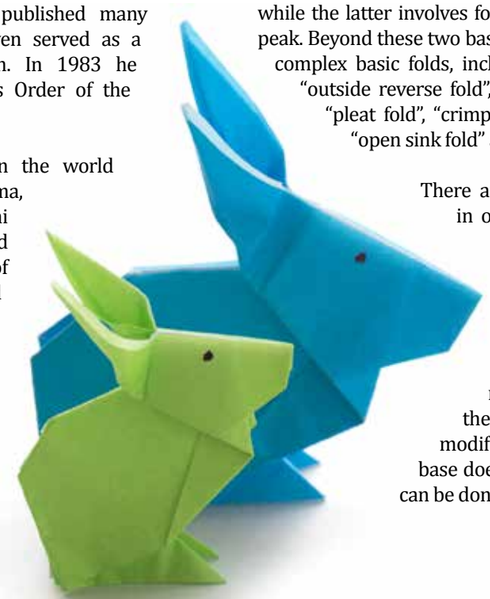
The development of origami owes much to the work of Akira Yoshizawa, who is known as the father of modern origami. Yoshizawa inspired a national and international interest in the art of origami. He was the one who developed the current standard for diagramming origami instructions and designed countless patterns. He also avoided the accepted cutting techniques used in traditional origami and developed a wet folding technique which rendered softer and more naturalistic lines. In 1957, Yoshizawa published *Origami Tokuhon* which brought him great renown. The origami master subsequently published many more books thereafter and even served as a cultural ambassador for Japan. In 1983 he received the honour of Japan's Order of the Rising Sun.

Another monumental figure in the world of origami was Kosho Uchiyama, a Buddhist priest and origami master, who was often considered to be a contemporary rival of Yoshizawa. Uchiyama published *Origami Zukan,* a children's instructional book for origami in 1958. Unlike the standard today, Uchiyama's book allowed for some cutting. He went on to publish several more books of origami, following in the footsteps of his father Michio Uchiyama who also wrote several origami books. Many of Uchiyama's books were translated and shared with international audiences.

> Origami holds deep cultural significance in Japan and has become a symbol of peace, hope, and resilience. The crane, one of the most recognisable origami figures, is particularly symbolic. According to Japanese legend, anyone who folds 1,000 origami cranes will be granted a wish by the gods. This tradition of folding 1,000 cranes, known as "senbazuru", became globally recognised through the story of Sadako Sasaki, a young girl who developed leukaemia after the Hiroshima bombing.

TECHNIQUES AND FUNDAMENTALS

Origami techniques can be categorised into several fundamental folds and bases, which serve as the building blocks for more complex models. The most basic folds are the "valley fold" and the "mountain fold". The former is where the paper is folded towards oneself, creating a valley-like crease, while the latter involves folding the paper away, forming a peak. Beyond these two basic folds, there are 10 other more complex basic folds, including the "inside reverse fold", "outside reverse fold", "rabbit ear fold", "squash fold", "pleat fold", "crimp fold", "petal fold", "swivel fold", "open sink fold" and "closed sink fold"



There are a number of common bases in origami. A base is the structural skeleton of an origami model in its simplest form. The usage of a base has many benefits. The folding sequence is easier to remember and create diagrams for, and further models can be developed from the same base, or from slight modifications. However, the use of a base does, to a certain extent, limit what can be done with the model.

Several of the most common bases used in origami include the following:

- **The Square Base:** A simple base formed by folding the paper diagonally in both directions, then bringing all corners to the centre.
- **The Kite Base:** This simple base is created by folding the paper diagonally in half to create a crease. Then, using the crease as a guide, fold the right and left edges of the paper to the centre to create a kite-like shape.
- **The Bird Base:** Derived from the square base, this involves additional folds to form a structure used in creating models like the crane.
- **The Waterbomb Base:** This is created by folding the paper into a preliminary base and then collapsing it into a three-dimensional shape. It is often used for spherical models.

Other common bases include the "frog base", the "fish base", the "umbrella base" and the "pig base", amongst others. Advanced origami involves a combination of these basic folds and bases, along with techniques such as reverse folds, squash folds and pleats. Mastery of these techniques allows origami artists to create intricate, lifelike models, from delicate flowers to complex geometric shapes.

MATHEMATICAL APPLICATIONS

Origami's relationship with mathematics is profound, but it may not be immediately obvious to the common eye. By their nature, the principles of origami involve complex geometric shapes and patterns. The processes of creating an origami figure can be broken down into a series of mathematical equations and algorithms, with each fold corresponding to an algebraic operation. Thus, the principles of geometry and topology are inherent in paper folding, making origami a practical tool for exploring mathematical concepts. Indeed, mathematicians and scientists have developed algorithms and theories based on origami, contributing to advancements in various fields.

One of the most prominent mathematicians in this field, Robert J. Lang has spent decades exploring the mathematics of origami. His work demonstrates the discipline's remarkable potential to solve intricate mathematical problems. For instance, he helped to develop a set of axioms for paper folding (Huzita-Hatori Axioms) that uses abstract algebra and geometry to describe a fold's potential transformations. This groundbreaking work has provided a solid foundation for understanding the limits and potentials of origami from a mathematical perspective.

Besides the Huzita-Hatori Axioms, which are fundamental to understanding the mathematical properties of origami, other key theorems inspired by origami include Haga's Theorem, which makes use of simple concepts such as the property of angles, Pythagoras' theorem and similar triangles to show how an origami paper can be folded into thirds, fourths, fifths, and so on without the use of a ruler; and Kawasaki's Theorem, which states that at any vertex in a flat-folded origami model, the sum of the alternating angles is 180 degrees. This principle is crucial for designing foldable structures.

These theorems are just the tip of the iceberg when it comes to mathematical applications inspired by origami. The ancient art of origami has made a much deeper contribution to modern science than one might realise.

SCIENTIFIC APPLICATIONS

Origami principles are now used in a wide variety of scientific and industrial applications - from the design of satellites, to heart stents, to robotics, and much more. But how does the art of paper-folding do that? As you can see, the mathematical processes that underpin origami are complex. The same analytical techniques and models that allow one to fold a piece of paper into an inordinate variety of shapes can be used to solve a wide array of vexing design problems. The methods that make a three-dimensional object out of flat materials can help to fit large objects into a smaller shape, after which they can expand again.

Origami-type folding principles have been used to make folding mirrors, such as those on the James Webb Space Telescope. The same general idea has also been applied to make foldable solar panels and other contraptions that need to be tucked away and packed up small, before being unfurled full-sized. Think of your camping chair and airbag, for example. One of the principles which is often applied is the Miura fold, a crease pattern named after Japanese astrophysicist Koryo Miura. When a piece of paper is folded into a small shape à la Miura, one needs only to hold on to both ends and pull, and the paper unfolds. This simplicity allows the fold to be used in many of these origami-inspired applications.

Japanese origami principles are also helping to save lives through its marriage with medical science. Researchers have developed heart stents that work by using the concept of a "waterbomb base". These stents can be contracted to be small enough to fit through a catheter, but once it reaches its position, it can be inflated to open up arteries. Origami techniques have been applied to develop foldable stents, which can be inserted into blood vessels and then expanded to support the vessel walls.

In terms of robotics, researchers have created origami robots that can fold and unfold, allowing them to navigate through confined spaces and perform tasks in areas inaccessible to traditional robots. Indeed, scientists have used the folding properties of origami to make nanobots as well as a robot that can assemble itself.

Nanobots hold much promise in the number of ways they can be deployed - from manufacturing to medicine. These robots - no bigger than a speck of dust - require big creativity as gears and most other mechanisms with moving parts do not work at such tiny scales, where forces like friction are









enormous, causing everything to stick. Instead, using the science of origami, fold patterns can be made to bend and move the same way at any size. Such robots may look like fat flakes with arms and legs, and when they are exposed to a trigger, such as voltage, their limbs bend, helping them walk through a drop on a glass slide or wave at a passing amoeba. Such technology may hold particular promise for biomedicine, where a tiny robot can be developed to fold and fit into a pill capsule. After the capsule is ingested, the robot unfolds and can be directed around the digestive system using programmable magnetic fields.

A self-assembling robot was created by MIT and Harvard, where the flat materials for the machine can fold to create a device that can move on its own and make turns. The flat panels are embedded with electronics and connected by hinges; they are also made of materials that contract and fold when heated to 100°C. The machine takes only four minutes to assemble. Such machines could be used for remote, autonomous assembly (e.g. when putting satellites into space or building shelters in dangerous environments) or be deployed as search-and-rescue robots as the thin pre-machine materials could fit in a small opening and then expanded to be deployed.

ARTISTIC APPLICATIONS

Last but not least, origami is and remains an artform, no matter its contribution to other fields. Since Yoshizawa modernised and changed people's perception of origami, and helped to elevate and transform it into a global art form, other contemporary artists have continued to push the boundaries of what is possible with this evergreen form of paper art.

Tomoko Fuse, one of the foremost origami artists in Japan, is famous for her advances in modular origami, which uses interlocking units to create models with greater flexibility and complexity. Fuse first learned origami while in the hospital as a child. When she was 19 years old, she studied for two and a half years with origami master Toyoaki Kawai. She has created numerous origami designs, including boxes, kusudama, paper toys, masks, modular polyhedra, as well as other geometric forms. Fuse revolutionised the art of origami and was awarded artist of the year in 1997 for her classic model, The Modular Star.



Another influential artist are the son-and-father duo of Erik and Martin Demaine, who are revered for their origami curved crease sculptures. Their sculptures are a result of back-and-forth folds in concentric circles, and the transformation of flat paper into swirling surfaces creates sculptures that feel alive. The younger Demaine (Erik) had completed his PhD by the age of 20, and his dissertation was a seminal work in the field of computational origami. A professor at MIT, he continues to explore origami applications in robotics, architecture and molecular biology.

Another influential figure in the world of origami is Paul Jackson, one of the first origami professionals in the West. Unlike the complex, detailed origami of many artists, Jackson's paper sculptures aspire to be simple, elegant in sequence and form, and surprising in concept. In addition to being a paper artist, he is also a paper engineer, writer and teacher with several books published on the application of folding techniques in design.

On the other end of the spectrum, Satoshi Kamiya is one of the most advanced origami folders in the world. He started folding paper at age two and began designing more sophisticated models at age 14. At age 17, he was invited onto a Japanese game show, *Origami TV Champion,* where he won the competition against artists twice his age, and proceeded to do so for the next three years running. Kamiya has made hundreds of origami models, drawing inspiration from nature, Eastern and Western mythology, manga and even video game characters. Many of Kamiya's origami designs are exceptionally complex. Some of his dragons require around 275 steps, while others, such as his Eastern Dragon, which took 40 hours to fold, are so complex that they will likely never be diagrammed for instruction.

OTHER CONTEMPORARY APPLICATIONS

Origami continues to unfold as a profound reservoir of inspiration for architects and designers alike. Origami architecture applies paper folding techniques to create visually striking and highly functional buildings. These origami-inspired designs offer advantages like lightweight structures, adaptable facades and sustainable features. Notable origami buildings also showcase innovative uses of folded forms in various architectural elements.

Some of the most iconic origami buildings in the world include the Bilbao Health Department in Bilbao, Spain which features an intricate folded glass facade. Constructed in 2004, the building has angled planes created through strategic folds and creases. This origami-inspired facade controls views and sunlight entering the building. The faceted glass surface patterns the building in a unique way inspired by the Japanese paper folding art. The Karuizawa Museum Complex in Nagano, Japan, which opened in 2011, is another iconic origami-inspired structure. This geometric building complex is designed to coexist harmoniously with the surrounding mountainous Japanese countryside. Traditional Japanese architectural elements are seamlessly integrated with modernist geometric folds to unify the forms. On the other hand, the Bengt Sjostrom Starlight Theatre in Rockford, USA, integrates origami principles into its kinetic roof design. The roof can expand upward to reveal the open sky or contract downwards to shelter the theatre stage below. When open, the wing-like roof structure creates an intimate environment for audiences to enjoy theatre under the stars. This folding mechanics enables a smooth transition from an open-air theatre to an enclosed performance venue.

In terms of origami fashion, the late Japanese master Issey Miyake was its premier practitioner. Always more interested in the design aspect rather than the fashion aspect of fashion design, Miyake popularised the iconic concept of folding in the 1980s. From one single piece of cloth, complex shapes and geometries were made, loosely wrapping the body. For his Pleats Please collection, parts were cut and sewn, and only then plisséd, creating durable rows of folds that stretched to match the size of the body. In the A-POC series (short for "a piece of cloth"), flat pieces made from soft recycled materials unfold like origami when pulled up and turned into dresses, pants or skirts. The same principle was then used for the IN-EI collection of origami-style lamps from 2013.

CULTURAL SIGNIFICANCE AND HEALTH BENEFITS

Origami holds deep cultural significance in Japan and has become a symbol of peace, hope, and resilience. The crane, one of the most recognisable origami figures, is particularly symbolic. According to Japanese legend, anyone who folds 1,000 origami cranes will be granted a wish by the gods. This tradition of folding 1,000 cranes, known as "senbazuru", became globally recognised through the story of Sadako Sasaki, a young girl who developed leukaemia after the Hiroshima bombing. Sadako's determination to fold 1,000 cranes in hopes of recovery turned the crane into a powerful symbol of peace and the anti-nuclear movement.

Beyond its cultural significance, origami is also increasingly recognised as an effective way to practise mindfulness and to increase well-being. Origami enhances the ability to be aware of what is happening in the moment and focus. Indeed, it has been studied as a tool for children to develop spatial and perception skills, learn mathematics, refine dexterity and hand-eye coordination, as well as improve concentration. Origami has been shown to improve spatial visualisation and mathematics skills in school students. It may also be useful for teaching children with special needs mathematics and could help to improve attention in children with attention deficit disorder.

While a beginner may find the complex origami models to be a little intimidating, it is important to let go of judgment and give oneself time and space to practise. As in other mindfulness practices like yoga or meditation, the key is letting go of perfectionism, self-criticism or self-judgment. Be mindful that no matter how many cranes you may have folded, your models are still not perfect. This is because we are only humans, not machines; we cannot fold to that level of accuracy and precision.



With practice, origami can become a form of a focused attention meditation, a category of meditation that trains the mind on an object. Focused attention meditation has been shown to stabilise the mind and promote calmness. Before being able to reach meditation through origami, you must first get to know the folds by heart. After this initial learning stage, you are then be able to fold with a meditative and focused approach. One needs to keep in mind that origami is not about folding the most complicated model, it is about using origami to meditate and achieve perspective, persistence, patience, and practice.

CONCLUSION

Origami, with its humble beginnings as a simple paper-folding craft, has grown into a multifaceted discipline that bridges the gap between art and science. Its historical roots and cultural significance continue to inspire practitioners and enthusiasts around the world. As origami evolves, it will undoubtedly continue to influence and shape various fields, demonstrating the profound impact that a single sheet of paper can have when folded with creativity and precision. PRIME



Starting Sweetly

Origins Behind Famous Desserts Around the World

For many people, a meal is only complete when there is dessert. Did you know that the tradition of finishing a meal with something sweet has its origins in France? The word “dessert” emerged in the seventeenth century, derived from the French verb “desservir” which means “to clear the table” in English. Etiquette dictated that napkins and tablecloths be changed before the final course, which at the time, was a delicate fruit course. In a courtly context, the course itself was known as “le fruit”, but the bourgeois renamed it “dessert”. After the French Revolution, the aristocratic “fruit” was fully replaced by “dessert”. Like the word “dessert”, the following sweet concoctions from around the world have fascinating origins which offer a glimpse into a country’s past, reflecting the diverse traditions and stories of their homelands. Let us now uncover the sweet stories behind some of the world’s most beloved desserts. These origins not only highlight the culture and creativity of their creators, but also celebrate the universal love for sweets that transcends borders and generations.

TIRAMISÙ

ORIGIN: ITALY



Tiramisù, which translates to “pick me up” in the Treviso dialect “tireme su”, is a layered coffee-flavoured dessert that epitomises Italian culinary elegance. The combination of ladyfingers soaked in espresso, layered with mascarpone cheese and dusted with cocoa, has remained an international favourite since its popularisation in the 1980s. Yet, despite its decades-long international popularity, its origins and history are still widely disputed.

Some sources trace the dessert back to Treviso in 1800 where it was believed to be created as an aphrodisiac by an astute mistress from a brothel in Treviso, who offered it to her customers to rejuvenate them. This theory is highly disputed. The more widely accepted story attributes its creation to the restaurant Le Beccherie in Treviso, which was run by the Campeol family from 1939 until 2014. It was said to be invented by the restaurateur’s wife, Alba di Pillo, and the restaurant’s pastry chef Roberto Linguanotto in late 1969, although the dessert was only added to the menu in 1972. However, this origin is contested by the region of Friuli Venezia Giulia, which claims that the recipe was first recorded in 1959 by Norma Pielli, chef at the Albergo Roma hotel in Tolmezzo, who served the dessert to hikers staying at the hotel. In this version of the dessert’s origin, it was believed that one of the hikers gave the dish its name.

BAKLAVA

ORIGIN: MIDDLE EAST

Baklava, a rich pastry made of layers of filo dough filled with chopped nuts and sweetened with syrup or honey, boasts an ancient but complex history. Its origins may possibly first date back to around eighth century BC to people in the Assyrian Empire, which spread across parts of modern-day Iraq, Iran, Kuwait, Syria and Turkey. The dessert, which consisted of unleavened layered flatbreads with chopped nuts in between, was believed to be only enjoyed during special events.

More commonly, the origins of baklava are contested between the Greeks and the Turks. The Greeks claim that the modern baklava evolved from the ancient Greek and Roman “placenta cake”, a dish which consisted of many layers of dough, filled with cheese and honey, and flavoured with bay leaves. On the other hand, the earliest versions of baklava as we know it today came around 500 years ago during the Ottoman Empire.

The dish is generally believed to have been developed in the imperial kitchens of the Topkapi Palace in Constantinople (now known as Istanbul). It is believed that the Turkish imperial chefs refined the Assyrian recipe into the modern version of baklava as they perfected the delicate layers and sweet syrup that characterise the dessert today.



APPLE PIE

ORIGIN: UNITED STATES



Nothing is as American as apple pie. A longstanding symbol of America, this flaky, fruit-filled dessert conjures memories of Fourth of July barbecues and Thanksgiving feasts, and of generations celebrating and enjoying time together. Strangely, apple pie was not invented in the US. In fact, the majority of its ingredients also hail from abroad. Early colonists had brought European apple tree cuttings and seeds with them to America. The only native apple in North America was the crab apple, and the colonists found its tiny fruit to be a poor substitute. Settlers had primarily used the apples to make cider rather than for eating as they were tart. However, apple trees are easy to cross-pollinate, meaning that deliberately producing new apple varieties is relatively simple. By 1800, American farmers were growing a mind-boggling 14,000 varieties of apple, many of which had been bred in the country. Some of these varieties were a good fit for apple pie. Other crucial ingredients of the apple pie like cinnamon and nutmeg also came from far-flung countries like Sri Lanka and Indonesia.

CHURROS

ORIGIN: SPAIN



Like many of the other desserts highlighted here, churros have a debated origin story. Some believe they were brought to Europe by Portuguese explorers who encountered a similar pastry (youtiao) in China in the 1500s. The Portuguese then brought the recipe over to Spain, where it became popular. Others argue that churros were invented by Spanish shepherds who needed a simple, portable food that could be cooked in an open fire. The name “churro” is said to be derived from the churra sheep, whose horns the pastries resemble. In old Spanish cookbooks from Al-Andalus (a Muslim-ruled area of the Iberian Peninsula), there is also a dish called zulâbiyya, which may be an ancestor of churros. The recipe for zulâbiyya calls for a dough made from flour and water, which is then fried in oil and drizzled with honey. This may indicate an Arabic-Andalusian origin from the 13th century.

MACARONS

ORIGIN: FRANCE



The macaron, a sweet meringue-based confection made with egg white, icing sugar, granulated sugar, almond meal and food colouring, may be an iconic French delicacy, but its roots lie in Italy, where it was believed to be brought to France in the 16th century during the Renaissance by Catherine de’ Medici’s Italian pastry chefs when she married Henry II of France. Back then, macarons were made from almonds, egg white and sugar. They were considered to be an exclusive item reserved for the royals until the empire fell in 1789. Some food historians dispute this theory and claim that pastries with almonds are often of Arabic origin. They argue that macarons may have moved from the Arab countries to Catalonia and Italy, before arriving organically in France. Regardless of its ancient roots, two Carmelite nuns - Marguerite Gaillot and Marie Morlot - were the ones who truly made macarons famous during the French Revolution. They had sought asylum in the city of Nancy in eastern France after a decree abolishing religious congregations led to the closure of their abbey in 1792. The nuns fled and took refuge with a local doctor, supporting themselves by making and selling macarons to commoners. Their macarons became very popular and the sisters soon became famous. People began referring to these macarons as Macarons des Sœurs.

PASTEL DE NATA

ORIGIN: PORTUGAL

Most of us know this delicious pastry as the Portuguese egg (or custard) tart from dining at Hong Kong and Macau eateries, or from local bakeries. The pastel de nata, a Portuguese staple, was created before the 18th century by Catholic monks in the Jeronimos Monastery, a UNESCO World Heritage Site.

At that time, the convents had an abundance of eggs as egg whites were used to starch the clothes of the Portuguese monks and nuns. With the leftover egg yolks, the monks and nuns would make pastries. This is how the pastel de nata came about in the Jeronimos Monastery. And when the monastery later faced financial difficulties, the monks began selling these delicacies at a sugar refinery to generate income. Pastel de nata quickly gained popularity, and when the monastery eventually closed in 1834, the monks sold the pastry’s recipe to the sugar refinery. Three years later, the sugar refinery owners opened the Fábrica de Pastéis de Belém, where these delicious tarts are still produced today.



CHEESECAKE

ORIGIN: GREECE



The first recorded evidence of a cheesecake-like dish dates back to around 4,000 years ago in ancient Greece. Physical anthropologists excavated moulds for the dish on the Greek island of Samos which date all the way back to 2000 BC. The cake was made with only four ingredients: flour, cheese, wheat and honey. They were formed using the moulds and then baked in wood-fired ovens. Cheesecakes were commonly served at Greek weddings. Baked by the bride and served to her new husband's family and friends, it was considered a gesture of hospitality. The Greek physician Aegimus even wrote a book on the art of making cheesecakes in fifth century AD. The Romans, after conquering Greece, adapted the recipe to create a dessert that more closely resembles the modern cheesecake we know today, adding crushed cheese and eggs. This recipe was then disseminated throughout Europe as the Roman Empire expanded. European variations of cheesecake emerged, reflecting the distinct dairy products and cooking styles of each region. The dessert then continued to evolve significantly over the centuries. The modern cheesecake, particularly the New York style, was popularised in the US during the early 20th century, with cream cheese becoming a key ingredient. Unlike its European counterparts, American cheesecake uses cream cheese for its filling and is served atop a crust made of crushed graham crackers.

MOCHI

ORIGIN: JAPAN

Mochi, a Japanese rice cake made from glutinous rice pounded into a paste and moulded into shape, has a history steeped in tradition. Its origins can be traced back to ancient Japan, where it was initially a food for the gods and consumed during religious ceremonies. The dish has been a part of Japanese culture since the Jomon period (14,000 - 300 BC), when rice cultivation became widespread in Japan. However, it was in the Nara period (710-794) when mochi began to resemble the treat we know today. By the Heian period (794–1185), mochi had become popular among the aristocracy, and people served it during special occasions and celebrations. It was a symbol of good fortune and often associated with the Japanese New Year. By the Edo period (1603-1868), mochi had become a staple food in Japan, and various regional variations had developed. The labour-intensive process of making mochi, known as mochitsuki, involves steaming glutinous rice and then pounding it with wooden mallets until the dough becomes sticky, elastic and smooth - a practice that remains a communal and festive event in Japan. Today, mochi is enjoyed in many forms and has become a popular treat worldwide. Its unique texture and sweet taste make it a beloved snack and dessert for people of all ages.



STICKY TOFFEE PUDDING

ORIGIN: UNITED KINGDOM



Sticky toffee pudding is a moist sponge cake made with finely chopped dates and soft brown muscovado sugar, covered in a rich toffee sauce, and often served with vanilla ice cream or custard. Its origins are somewhat unclear and disputed across Britain. Owners of the Gait Inn in Millington, Yorkshire (1907) and the Udny Arms Hotel in Newburgh, Aberdeenshire (1960s) both claim to have invented it. But the most widely accepted creator is Francis Coulson at the Sharrow Bay Country House Hotel in Cumbria (1970s). Even then, it is disputed whether Coulson had invented the dish. Rumour has it that the original recipe was handwritten by Royal Canadian Air Force personnel stationed in Britain during World War II and passed to Patricia Martin, a hotelier, while lodging in nearby Lancashire. It was only years later when the recipe made its way to Cumbria. Further rumours claim that Coulson confirmed the recipe's Lancashire connection sometime before his death in 1998, acknowledging that he had received the recipe from Martin, but made a few changes before adding it to the Sharrow Bay House menu.

MANGO STICKY RICE

ORIGIN: THAILAND



The traditional Thai dessert of mango sticky rice (khao nieow mamuang) is made with glutinous rice, fresh mango slices and coconut milk. Its origins are deeply rooted in Thai cuisine, where it has been enjoyed for centuries, particularly during the mango season. Mango sticky rice is a popular street food in Thailand, and is often served during festivals and special occasions.

The earliest history of mango sticky rice dates back to the late Ayutthaya period (1351 - 1767). Recipes from the reign of Rama V (1868 - 1910) also stated that khao niew moon (steamed sticky rice with coconut milk) were to be consumed with fruits, presumably sweet mango. For the dish, the sticky rice is cooked with coconut milk, sugar and a pinch of salt, giving it a rich, creamy texture that complements the sweetness of ripe mangoes. If done right, the perfect balance of flavours and textures can be pure magic.

ÉCLAIR

ORIGIN: FRANCE



Éclair means lightning in French. It is not clear how the pastry got its name, but it was first applied in the 1860s, whereas previously it was known as petite duchesse in France. French chef Marie-Antoine Carême, who is also responsible for other desserts like the Charlotte and Napoleon cake, is widely credited with creating and popularising the éclair. Besides opening his own shop, Carême was a big name who also worked for royals like George IV of Britain, Alexander I of Russia and Napoleon. The pastry's first print reference in English was in an article in *Vanity Fair* in 1861, and then in the *Boston Cooking School Cook Book* in 1884.

The choux pastry (pâte à choux) is a key component of the éclair. It is also used in making cream puffs, profiteroles and gougères. This pastry rises only from the action of steam. It does not use any yeast, baking soda or baking powder. This makes the éclair different from long-shaped doughnuts like the Long John, which are made with doughnut pastry that uses another leavening.

GULAB JAMUN

ORIGIN: INDIA



Gulab jamun is a traditional Indian dessert made of deep-fried dough balls soaked in a light sugar syrup flavoured with cardamom, rose water and saffron. While it is now distinctly associated with India, it has a history rooted in Persia. The dish is believed to have been inspired by the similar Persian dessert luqmat al-qadi, where fried dough balls are dipped in honey, and it was introduced to India during the medieval period by the Mughals. Others say that the dish was created accidentally by one of Mughal emperor Shah Jahan's royal chefs, who was actually trying to create another dish. The Persian bamieh and the Turkish tulumba are also cited as possible predecessors of the gulab jamun, since both consist of fried dough dipped in a sugar syrup. Over time, this deep-fried dessert, which melts in the mouth upon applying the slightest pressure, with its sweetness bursting into and filling your mouth, became a popular mainstay of festivals and special occasions across the Indian subcontinent.

BLACK FOREST CAKE

ORIGIN: GERMANY



Also known as Schwarzwälder Kirschtorte in Germany, Black Forest cake is a classic dessert that has captivated the taste buds of people around the world. This delectable treat is a harmonious blend of chocolate, cherries and cream, creating a mouthwatering experience that has stood the test of time. Historians believe the cake originated in the late 16th century in the Black Forest region, hence its name. During this era, chocolate was first integrated into cakes and cookies. The Black Forest region is also known for its sour cherries and kirschwasser, a double distilled, clear cherry brandy made from the sour Morello cherry which flavours the cake. One theory suggests that the cake was inspired by the traditional attire of the Black Forest women, which typically features a black bodice with white frills, much like the cake's contrasting layers of dark chocolate and white cream.

Besides this origin, a confectioner called Josef Keller in Bad Godesberg, Bonn also claimed to have invented the Black Forest cake in 1915. However, this other theory is highly questioned. While the exact origin of the dessert is unclear, it is not disputed that the Black Forest cake did become popular in the early 20th century. The combination of rich chocolate, tart cherries and light cream makes it a standout in German pastry cuisine.

PAVLOVA

ORIGIN: AUSTRALIA/ NEW ZEALAND

Baking a pavlova and turning up to a backyard barbecue with the dessert in hand is about as Australian and New Zealander as it gets. It is a dish that is synonymous with summer celebrations in the southern hemisphere; a refreshing sweet treat on an often hot and sticky day. It is no wonder that many Australians and New Zealanders have a strong affinity with the dessert and claim it as their own (much like how Singapore and Malaysia often fight over the origins of certain dishes), even as they agree on the origins of the name. The dessert was named after Russian ballerina Anna Pavlova, who was a megastar when she toured both countries in the 1920s.

On the Australia side, chef Herbert Sachse is said to have created the pavlova at Perth's Esplanade Hotel in 1935. The dessert was apparently named by the house manager, Harry Nairn, who seemingly remarked that it was "as light as Pavlova". On the other hand, the New Zealanders often cite the story of an unnamed chef at a Wellington hotel, who is said to have invented the pavlova during the ballerina's only tour of the country in 1926. While this story is often unverified, a recipe for a large meringue cake named after the ballerina did appear in the regional publication *Dairy Farmer's Annual* in 1929. Regardless of its birthplace, pavlova remains a beloved dessert in both nations. PRIME





Prime Essential Travel Tips Part 3

Travel Precautions

Travelling can be one of the most enriching experiences in life, offering a chance to explore new cultures, landscapes and perspectives. However, to ensure that your trip is enjoyable and trouble-free, it is essential to take various precautions before embarking on your journey. Here are some key travel precautions to ensure that you are well-prepared and safe throughout your trip.

HEALTH PRECAUTIONS

Your health should always be one of your top priorities when you are travelling. Take these steps to safeguard your well-being:



1 Travel Insurance

Purchase a comprehensive travel insurance plan that covers medical expenses; trip cancellations; lost, stolen or damaged items; and other potential emergencies.

2 Vaccinations and Medications

Ensure that you are up-to-date with routine vaccinations and any specific vaccines required for your destination. For example, certain countries have long-lasting health entry requirements, such as yellow fever vaccination certificates. Ask your doctor about getting a flu shot if you are travelling to the northern hemisphere during their winter influenza season. Also, carry any necessary prescription medications and a copy of your prescriptions.

SAFETY PRECAUTIONS

Ensuring your safety while traveling involves being aware of your surroundings and taking preventive measures:

1 Accommodation Safety

Choose reputable accommodations with good reviews. Sieve through the reviews and pictures taken by customers to have a better idea of what the accommodation is really like.

2 News Updates

Follow local news and updates to stay aware of any developments that might affect your travel plans.



3 Emergency Preparedness

Know the location of the nearest hospitals and police stations near your accommodation, and your country's embassy/consulate, in case of emergencies. Also, save local emergency numbers in your phone, including the local police, ambulance service and the numbers of your country's embassy/consulate. E-register with the Ministry of Foreign Affairs.

COMMUNICATION

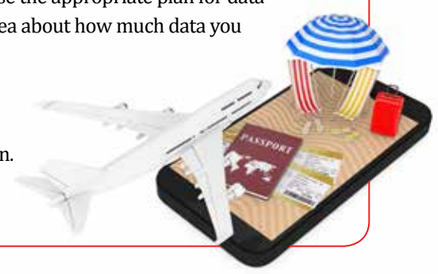
Staying connected while traveling is essential for your safety and convenience. Make sure these are in place before you set off:

1 Local SIM cards and roaming plans

Consider purchasing a local SIM card (these are usually cheaper) or an international roaming plan to ensure you have reliable phone service. If you are roaming, choose the appropriate plan for data roaming/international calls to cater to your needs (have a rough idea about how much data you normally use), and make sure your roaming is activated.

2 Apps and technology

Download travel apps for navigation, translation and communication. Offline maps and translation apps can be particularly helpful.



DOCUMENTATION AND FINANCES

Proper documentation and financial preparation are crucial for a smooth travel experience. Be sure to confirm on the following:

1 Passports and Visas

Ensure your passport is valid for at least six months beyond your travel dates. As for visas, Singapore's passport is one of the most powerful in the world so you should not need one for most countries popular among Singaporeans, such as Japan, Korea, Thailand or Taiwan. However, you should still do your due diligence and check if a visa is required as countries may still change their travel restrictions for a variety of reasons. A quick search online should suffice.



2 Copies of Important Documents

Make copies of your passport, visa, travel insurance and other essential documents. Keep one set of copies with you and leave another set with someone you trust back home.

3 Emergency Contacts

Compile a list of emergency contacts, including local emergency numbers, your country's embassy or consulate, and contact details of friends or family.

4 Travel Itinerary

Share your travel itinerary with someone you trust. Include details of your accommodation, transportation and planned activities.



5 Health Card

Prepare a health card that contains your vital information (e.g. blood group, allergies to medicines or food, vaccination record, brief medical record, names and doses of required medication (if any), name and contact number of your doctor and emergency contact, etc.)

6 Financial Preparations

Inform your bank of your travel plans to avoid any issues with your travel credit or debit cards, and make sure you have enough credit/money in your accounts. Carry a mix of payment options, such as cash, cards (one or two) and traveller's checks, and keep them in separate locations.

DESTINATION RESEARCH

Thorough research about your destination and the places you plan to visit is crucial. Such knowledge can prevent misunderstandings and enhance your experience. It may also prevent you from falling into the trap of scammers. Look into the following:

1 Cultural Norms

Familiarise yourself with local etiquette, dress codes and behaviours. Show respect for the local culture.



2 Local Laws

Be aware of local laws and regulations, including those concerning drugs, alcohol and other substances.

3 Entry Requirements

Certain places you want to visit may not require an entry fee, while others may require one. Try to find out beforehand whether entry is free-of-charge because scammers may prey on the ignorance of tourists to demand entry fees where none is required. Also, be mindful of any dress code requirements (head dress, etc.) at the tourist spots you are visiting.

4 Health and Safety Advisories

Consult travel advisories from the Ministry of Foreign Affairs' website for updates on safety, health concerns and security risks.

5 Climate and Weather

Check the weather forecast to plan your activities.



OTHER PREPARATIONS

1 Reservations

Confirm that your flight, restaurants, hotel, car rental, attractions, and any other services or experiences you have planned are in order.

2 Bill Payments

Where able, make advance payments on bills that have due dates during your trip. Make sure all monthly bills will be paid on time.

3 Perishable Food

Eat, throw out or give away any perishable food. The last thing you want is to return home to a stinky fridge. Also, take out the trash and clean the sink to be sure there is no rubbish that could rot or attract bugs while you are away.



4 Clean your wallet

Sift through your wallet and remove any items you do not need on your trip. Leave loyalty cards, gift cards, extra credit cards and any other unnecessary contents at home.

5 Take care of your pets

If your pets are staying in the house while you are gone, make sure they have fresh food and water, as well as clean litterboxes or cages. Scan the house to make sure they cannot get into anywhere dangerous.

6 Hold your delivery

Place a hold on your deliveries if you are going away for more than a couple of days. Alternatively, arrange for your deliveries to be sent to your neighbour or friend until you get home.



With thorough preparation and precautions, you can focus on enjoying your travel experience. Embrace the adventure, meet new people and create lasting memories, while staying safe and mindful. By taking these travel precautions, you can mitigate risks and ensure a smoother, more enjoyable journey. Safe travels! PRIME



SERVES: 4-6

SMOKY LEMON, EGG & QUINOA SOUP

Ingredients:

- 6 cups vegetable broth
- ⅓ cup quinoa
- 2 cups chopped kale
- ½ cup diced red capsicum
- 4 large eggs
- ½ tsp lemon zest
- 3 tbsp fresh lemon juice
- 2 tsp smoked paprika
- ¼ tsp salt
- ¼ tsp pepper

Method:

- In a soup pot, bring vegetable broth and smoked paprika to a gentle simmer. Stir in quinoa and simmer for about 10 minutes.
- Stir in kale and capsicum; simmer for about 2 minutes.
- Meanwhile, in a bowl, whisk together eggs, lemon zest and juice, salt and pepper. Slowly ladle about 1 cup of the broth into the egg mixture while whisking to temper the eggs.
- Remove soup from heat and slowly drizzle egg mixture into soup pot while stirring.
- Serve immediately.



SARDINES ON TOAST

SERVES: 1

Ingredients:

- 1 small tin of sardines, ideally in extra virgin olive oil
- 2 tbsp coriander, roughly chopped
- 6-8 cherry tomatoes, chopped in quarters
- ¼ onion, diced finely
- 1 tbsp of hummus
- Freshly squeezed lemon juice, to taste
- Freshly cracked black pepper, to taste
- 1 thick slice of wholemeal bread, toasted

Method:

- Place sardines in a bowl and mash with a fork.
- Add coriander, onion and hummus, and mix to combine.
- Add tomatoes, lemon juice and pepper, and gently fold through.
- Heap onto toasted bread. Add more pepper and lemon juice if desired.



SERVES: 4

PHILLY CHEESESTEAK STUFFED PEPPERS

Ingredients:

- 2 large capsicums, halved lengthwise, seeds removed
- 1 tbsp extra-virgin olive oil
- 1 large onion, halved and sliced
- 200g mushrooms, thinly sliced
- 350g top round steak, thinly sliced
- 1 tbsp Italian seasoning
- ½ tsp ground pepper
- ¼ tsp salt
- 1 tbsp Worcestershire sauce
- 4 slices provolone cheese

Method:

- Preheat oven to 200°C.
- Place capsicum halves on a rimmed baking sheet. Bake until tender but still holding their shape for about 30 minutes.
- Heat oil in a large skillet over medium heat. Add onion and cook, stirring, until starting to brown for about 4-5 minutes. Add mushrooms and cook, stirring, until they are softened and release their juices for about 5 minutes more. Add steak, Italian seasoning, pepper and salt; cook, stirring, until the steak is just cooked through for about another 3-5 minutes more. Remove from heat and stir in Worcestershire sauce.
- Preheat broiler to high. Divide the filling between the capsicum halves and top each with a slice of cheese. Broil until the cheese is melted and lightly browned for about 2-3 minutes.



SERVES: 2

PARMESAN PORK WITH TOMATO & OLIVE SPAGHETTI

Ingredients:

- 300g lean pork fillet, cut into 6 equal slices
- 3 tsp olive oil
- 3 tsp finely chopped fresh sage
- 4 garlic cloves, finely grated
- 15g very finely grated parmesan cheese
- 1 large carrot, chopped
- 3 celery sticks, chopped
- 6 olives, thinly sliced
- 2 tbsp tomato purée
- 1½ tsp vegetable bouillon powder
- 150g wholemeal spaghetti
- 100g cherry tomatoes, halved
- Handful of chopped coriander

Method:

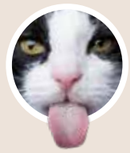
- Put the pork in a bowl with 1 tsp oil, 1 tsp sage and 1 garlic clove, with lots of black pepper. Mix well, put on a tray and scatter with the cheese.
- Heat the remaining 2 tsp oil in a pan and fry the carrot, celery and remaining garlic and sage for about 5 minutes, stirring. Add the olives, tomato purée, bouillon and 200ml water, cover and cook for about 5-8 minutes or until the vegetables are tender.
- Meanwhile, cook the spaghetti following pack instructions and heat the grill. Grill the pork for about 6 minutes, then leave to rest. Drain the spaghetti, reserving a little water, and toss in the vegetables with the tomatoes and parsley.
- Add the water to loosen, then serve with the pork.

Paw Patrol

Fun Facts You Probably Didn't Know About Your Felines and Canines



Cats



Cats have fewer taste buds than dogs

Cats can taste savory, salty, bitter and sour flavours, but they cannot taste sweet.



Cats walk like camels and giraffes

Their walking sequence is both right feet first, followed by both left feet, so they move half of their body forward at once.



Cat are genetically similar to tigers

They also share the same behaviours, such as scent and urine marking, prey stalking and pouncing.



Cat whiskers are their antennae

It is their sensory equipment which guides them, aiding vision and helping the cat to navigate.



Orange cats are mostly male

On average, there are roughly three ginger males to one female ginger cat

Dogs



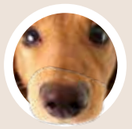
Tail wagging as a language

Dogs wag their tails to the right when they are happy and to the left when they are frightened.



Dogs dream much like humans do

Researchers say that dogs have similar sleep patterns and brain activity as humans. Small breeds tend to dream more than large ones.



Dog noses are wet to help absorb scent chemicals

Their nose secretes a special mucus that absorbs chemicals. They then lick their nose to help them understand what the smell is.



Dogs do not sweat like humans

While humans sweat watery liquid to cool down, dogs produce a pheromone laden oily substance that humans cannot detect.



Dogs have a sense of time

With enough training, dogs are able to predict the timing of daily activities like walks and meals based on their frequency.

Big in Content, Even Bigger in Value!

PRIME Super Value Subscription Plans
TS6® Feminine Intimate Serum (30g)

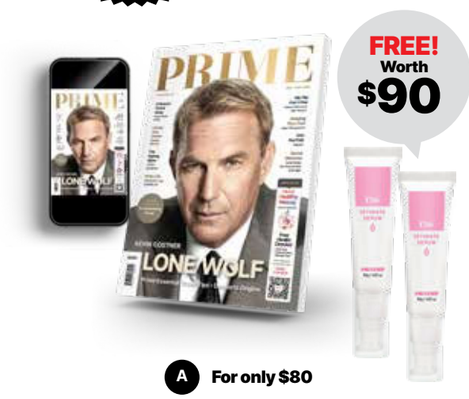
30g



Subscribe now to Prime magazine, and enjoy free gifts and an eCopy of our latest issue. With every Premium Plan, you get a TS6® Feminine Intimate Serum, specially designed to promote healthy feminine hygiene. It contains probiotic essence through bioactive fermentation of natural yogurt filtrate. This essence consists of natural lactic acid, antimicrobial factors, amino acids, vitamin B complex and natural moisturisers. It provides nutrients to restore microflora of the genital urinal tract, helps to protect against pathogenic growth and maintain a balanced pH.

Popular Choice

3-YEAR PLAN



A For only $80

Get 18 physical copies of Prime Magazine + 18 eCopies + 2 TS6® Feminine Intimate Serum

2-YEAR PLAN



B For only $54

Get 12 physical copies of Prime Magazine + 1 TS6® Feminine Intimate Serum

DIGITAL PLANS

Prime Magazine eCopy Version



C 18 digital issues for **$15**

D 12 digital issues for **$12**

E 6 digital issues for **$7**

PRIME SUBSCRIPTION FORM

HOTLINE +65 9800 8850

☐ **Plan A** ($80) ☐ **Plan B** ($54) ☐ **Plan C** ($15) ☐ **Plan D** ($12) ☐ **Plan E** ($7)

MODE OF PAYMENT

☐ Charge to Mastercard/Visa for $ _____

Credit Card No.: ☐☐☐☐-☐☐☐☐-☐☐☐☐-☐☐☐☐

CVC: *3 digits at back of card* ☐☐☐

Name on Card: _____

M M / Y Y
Expiry

☐ PAY NOW UEN - 200603175G or DBS 005-901158-7

SUBSCRIBER INFORMATION

Name (Mr/Mrs/Ms): _____ DOB: _____

Address: _____ Occupation: _____

Tel (office): _____ Tel (mobile): _____ Email: _____

After completing this form, you may:

Mail to: Spring Publishing Pte Ltd, 61 Upper Paya Lebar Rd, #05-02A Tat Wan Building, Singapore 534816
Email: prime@spring.com.sg
WhatsApp: 9800 8850

No official receipt will be issued for payment by cheque/credit card. Please allow 3 to 4 weeks for your order to be processed. Subscribers will be informed by post to collect their gifts. Subscription are non-refundable. Gifts are available while stocks last. Spring Publishing reserves the right to replace the gifts if stocks run out.

Prime shopping cart gives you a rundown on some of the awesome products & services that are worth their value!

Bausch + Lomb Blink® Eye Drops Line

Bausch + Lomb Blink® family of lubricating & contact lens eye drops are formulated to relieve dryness and discomfort in the eyes or during contact lens wear. Blink® eye drops contain ingredients such as sodium hyaluronate, which helps to retain moisture in the eyes and provide long-lasting relief. The Bausch + Lomb Blink® eye drops line include:

- **Blink® Intensive Tears Protective Eye Drops** work with every blink to provide immediate and long-lasting dry eye symptoms relief.

  It is also available in single-use vials which is preservative-free, and suitable for patients with sensitive eyes.

- **Blink® Contacts Lubricating Eye Drops** moisturise the eyes and contact lenses to keep eyes feeling fresh, providing long-lasting comfort throughout the day.

- **Blink-n-Clean® Lens Drops** help to rewet and lubricate your contact lenses, promoting lens cleanliness during wear to keep them fresh and your vision clear.



Both Blink® Contacts Lubricating Eye Drops and Blink-n-Clean® Lens Drops are formulated for daily use with soft and hard contact lenses.

$9.85 - $16.05

AVAILABLE AT selected clinics and optical retailers; major pharmacies including Guardian, Watsons and Unity.



Holistic Way Essentials Super Barley Greens

Holistic Way Essentials Super Barley Greens is a high dietary fibre formula comprising of 12 super fruit and green essences to cleanse the body naturally and keep it alkaline. Barley grass is rich in functional nutrients such as flavonoids, chlorophyll, antioxidant enzyme, vitamins and minerals. It is also a great source of both insoluble and soluble dietary fibre. Insoluble fibre supports a healthy digestive system by promoting regular bowel movement and promotes a feeling of fullness, which can be beneficial for weight management and appetite control. Soluble fibre aids in the gradual absorption of sugar, maintaining healthy blood glucose and cholesterol levels. By offering well-balanced nutrients, this convenient powder sachet complements the daily dietary intake of both men and women aiming to enhance overall well-being and support the immune system.

$48.00 ***2g x 30 Sachets***

AVAILABLE AT Guardian, Watsons and Unity pharmacies.

Ember Mug 2 and Ember Travel Mug 2+

Ember, a US global design brand and technology platform focused on temperature control products, has arrived in Singapore! Launched in 2016, Ember was born out of a desire to solve a common frustration for coffee and tea lovers - keeping hot drinks at the perfect temperature. With advanced technology that does more than simply keep coffee or tea hot, Ember's smart mugs allow users to set an exact drinking temperature from 50°C to 62.5°C, ensuring your coffee is never too hot or too cold. The company's patented temperature control technology is featured across its range of award-winning products from the Ember Mug 2 to the Ember Travel Mug 2+.

The Ember Mug 2 is crafted for use at home or in the office, and ensures that every sip is perfect from the first to the last. For those on the go, the Ember Travel Mug 2+ keeps your favourite warm beverage at your preferred drinking temperature throughout your morning commute or longest meeting. Its sleek and durable design seamlessly blends technology with style, making it an essential accessory for any setting. The Travel Mug 2+ includes smart features such as a hidden-until-lit LED display that allows you to increase or decrease your preferred drinking temperature with a simple tap on the + or - symbol. By touching the Ember logo, you can reveal additional features including battery life, temperature, and your customised mug name. The Travel Mug 2+ is also compatible with Apple® Find My™, available on iOS devices, enabling you to pinpoint the mug's exact location if misplaced and receive notifications if it is left behind.

AVAILABLE AT The Planet Traveller Paragon, The Planet Traveller Westgate, Boarding Gate Bugis Junction, and online platforms.



$328.55 ***Black Ember Travel Mug 2+ (355ml)***

Ember Mug 2 is available in two sizes and three colours:

$248.55 ***Black and White (414ml)***

$248.55 ***Copper (295ml)***

$208.55 ***Black and White (295ml)***

Information: ember.com



Capitol Optical Grand Opening@Pasir Ris Mall

Capitol Optical is excited to announce the grand opening of its 18th store at the new Pasir Ris Mall! This grand opening marks the establishment of the company's 6th Ortho-K Fitting Center. Located in the heart of Pasir Ris district, this latest outlet is set to enhance Capital Optical's advanced management techniques in combating myopia. With 56 years of history, Capitol Optical has become synonymous with excellence in optical care. The new Pasir Ris Mall outlet upholds this tradition, offering an extensive range of products and services tailored to meet the diverse needs of customers. From designer eyewear to budget-friendly options, Capitol Optical ensures that everyone finds the best solution for their vision needs. Furthermore, you can also enjoy exclusive grand opening discounts at the new Pasir Ris Mall outlet, so hurry down now!

Information: capitol.com.sg

PRIME
Event Listing



MISS SAIGON

The Heat is On, Singapore! Cameron Mackintosh's Miss Saigon returns after 23 years. The new production of British producer Mackintosh, French songwriter Alain Boublil and composer Claude-Michel Schönberg's award-winning musical will play at the Sands Theatre at Marina Bay Sands for a one-month limited run from 15 August to 15 September. Seen by 38 million people worldwide since its premiere in 1989, this production is more thrilling than ever. From the creators of Les Misérables, the soaring musical score features hits such as *The Heat is On in Saigon, The Movie in My Mind, Last Night of the World* and *The American Dream.* Be enthralled once again by the timeless love story between an American Marine and a young South Vietnamese girl set during the Vietnam War.

Date: 15 Aug-15 Sep 2024 **Venue:** Sands Theatre, Marina Bay Sands
Information: www.marinabaysands.com/entertainment/shows/miss-saigon.html

---

SINGAPORE NIGHT FESTIVAL

The Singapore Night Festival - Singapore's largest nocturnal experience - returns to the Bras Basah-Bugis precinct for its 15th edition this year. Happening for three weekends from 23 August to 7 September, this year's festival is themed the Art of Play. This exploration of the concept of play and childhood is inspired by the historical significance of the precinct as the birthplace of some of Singapore's first schools. Discover the unique stories and traditions of the precinct through the festival's signature projection mapping artworks, night light installations by local and regional artists, alongside a series of exciting programmes, food and retail experiences across numerous Festival Villages, and performances including jazz performances and a xinyao singalong. Take a step back in time with this year's Highlight Act titled Wonder World, and bask in the old-school and retro vibes of Singapore from the 1950s to 1970s. Conceptualised by local artist SKL0, this seemingly whimsical amusement park experience ponders on and touches upon our modern idea of nostalgia and heritage.



Date: 22 Aug-7 Sep 2024 **Venue:** Bras Basah-Bugis
Information: www.nightfestival.gov.sg



RAINIE YANG'S LIKE A STAR WORLD TOUR CONCERT

Fans of Taiwanese sweetie pie Rainie Yang rejoice! After more than four years away, Rainie Yang returns to our shores on 24 August at the Singapore Indoor Stadium with her LIKE A STAR World Tour. Celebrating the 24th anniversary of her debut, the Taiwanese singing and TV superstar is ready to dazzle her fans and showcase her charm in this highly anticipated concert. Be ready to sing along to all her greatest hits, from the early ones like *Ambiguous* and *Ideal Lover* to more recent hits like *A Thousand and One Wishes* and *Like a Star.* Take a moment to revisit the youthful and courageous memories Rainie has given to us, reigniting the stars in our hearts!

Date: 24 Aug 2024 **Venue:** Singapore Indoor Stadium
Information: www.sistic.com.sg/events/rainie0824

PRIME
Event Listing

SPD ABILITY WALK

Come and be a part of the SPD Ability Walk 2024 on 1 September at the Asian Civilisations Museum in celebration of SPD's (Society for the Physically Disabled) diamond jubilee! Embark on a nostalgic journey along the stunning Singapore River and travel back in time to play games from earlier days. This year, the organisers hope to make it a memorable experience for all: allowing the younger generation to engage in, and the older generation to fondly reminisce, the past. Participants can look forward to a fun-filled carnival with interactive games and disability simulation activities after the walk. Mr. Alvin Tan, Minister of State, Ministry of Culture, Community and Youth and Ministry of Trade and Industry, will grace the event as the guest-of-honour.



Date: 1 Sep 2024 **Venue:** Asian Civilisations Museum
Information: www.spd.org.sg/events/spd-ability-walk-2024



FORMULA 1 SINGAPORE AIRLINES SINGAPORE GRAND PRIX

Formula 1 Singapore Airlines Singapore Grand Prix 2024 (Singapore Grand Prix 2024) will be back on 20-22 September at the Marina Bay Street Circuit. After an impressive attendance of over 260,000 spectators and a spectacle of a race in 2023's edition, this year's race is even more highly anticipated and is expected to get even more heated. Will Carlos Sainz Jr come up with another win after ending serial-winning Max Verstappen's amazing run in the 2023 Championships? Or will the flying Dutchman come roaring back this year? This year's entertainment programme is also likely to feature more stellar acts after the likes of Robbie Williams and Post Malone graced the concert last year. Do not miss the chance to catch exciting live F1 racing action as well as top-class entertainment acts at this year's Singapore GP!

Date: 20-22 Sep 2024 **Venue:** Marina Bay Street Circuit **Information:** singaporegp.sg

---

SINGTEL-SINGAPORE CANCER SOCIETY RACE AGAINST CANCER

Organised by Singapore Cancer Society (SCS), Race Against Cancer (RAC) 2024 aims to raise funds for cancer treatment subsidies, welfare assistance, cancer rehabilitation, hospice care, cancer screenings, research, public education, and cancer support group initiatives. This year's event features a Physical Run, which includes a 5km, 10km and 15km run, as well as a 2km Parent-Child Fun Run, where you can register yourself and your little ones (ages 3-12) for a fun morning run while teaching them about a good cause! You can also choose to go for the 21km or 42km Virtual Run, where you can clock your run with Strava at any time and place from 29 September to 15 October. No one should fight cancer alone! RAC invites people of all walks of life to join in the fight and run alongside those who are impacted by cancer.



Date: 29 Sep 2024 **Venue:** Angsana Green, East Coast Park **Information:** www.raceagainstcancer.org.sg

PRIME

PASSPORT

FRANCE

Intriguing things about France that will make you say "Sacré Bleu"

The Eiffel Tower

grows taller during the summer.

Paris *is the capital of France.*

Châteaux

France has the most châteaux in the world boasting well over 40,000 castles and châteaux throughout its countryside.

The Louvre

is the most visited museum in the world.

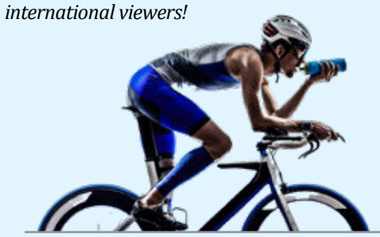


The Statue of Liberty

originated in France. It was gifted to the United States in 1886 as a symbol of friendship.

Tour de France

does not start in France. Since the 1970s, it has been common to award the start of the event, called Grand Départ, to cities outside of France in order to increase international viewers!



Baguettes

have precise dimensions. A genuine baguette must be between 55 to 65 centimetres long.





Champagne

Only sparkling wine produced in the Champagne region of France can be legally called 'Champagne'.



Less than 20 minutes

Louis XIX or Louis Antoine of France, is identified by the Guinness World Records as the shortest-reigning monarch, reigning for less than 20 minutes during the July Revolution, although this is not backed up by historical evidence.

TS6®

Healthy Beauty Inside & Out



TS6® FEMININE CARE

TS6® Feminine Intimate Serum
promotes healthy feminine hygiene through bioactive fermentation of natural yoghurt filtrate. It contains probiotic essence consisting of natural lactic acid, antimicrobial factors, amino acids, vitamin B complex and nautural moisturizers, thus restoring microflora of the genital urinal tract, while protecting against pathogenic growth and maintaining pH balance.

TS6® Intensive Cleansing Mousse
is a probiotic wash designed for women on daily feminine care. It consists of natural fragrance and soap-free ingredients that helps to eliminate unpleasant odor, keeping healthy acidic urogenital environment and may effectively reduce the risk of feminine innfections.

TS6® GUT CARE

TS6® Probiotic Powder
is a houshold brand that is widely used for all ages (from infant to adult). These selected strains are tested for its safety and efficacies to be used in the long term to promote smooth defecation, help indigestion and improve lactose intoerlance.

TS6® G-Uro Procap
is formulated with very specific probiotic strains for patients with Urinary Tract Infection (UTI). It consists of an optimal amount of cranberry that effectively help to prevent the recurrence of UTI. It also helps to promote the healthy genitourinary tract, smooth defecaton, and restore feminine microflora.

TS6® Lady Health TS6® PROBIOTIC TS6® G-Uro ProCap

For Distributorship, please contact: +65 6354 4544 or email: service@dnamedic.com

Please consult your medical professionals for further information.

Holistic Way®
PREMIUM GOLD

Diamond White Collagen



Holistic Way® PREMIUM GOLD

MANUFACTURED IN GMP ACCREDITED FACILITY
GMP



楊雁雁
Yeo Yann Yann
Golden Horse Award Best Actress
JR Life Sciences/Holistic Way
Ambassador

Holistic Way® PREMIUM GOLD Diamond White Collagen

Holistic Way Premium Gold Diamond White Collagen is a comprehensive All-in-One formula containing PhytoflORAL®, a proprietary ingredient derived from non-GMO tomatoes. Rich in carotenoids such as Phytoene and Phytofluene, it may help support brightening of skin, apart from helping to support body's natural response towards UV exposure and provide essential sun protection. Added with Hydrolysed Marine Collagen and L-Glutathione, it may help support skin hydration, skin health and complexion. Polypodium leucotomos is a type of topical fern which helps support body's natural response towards UV exposure and provide essential sun protection. The comprehensive formulation also consists of Nicotinamide Mononucleotide (NMN), a cellular energy precursor and various antioxidants that may assist in energy metabolism and overall skin health. Suitable for both men and women to support skin integrity from within.

$150.80 | **30** CAPSULES

SME500 SINGAPORE 2021-2022
SINGAPORE QUALITY CLASS
Influential Brands TOP 1 BRAND 2023 HEALTH SUPPLEMENT
SINGAPORE CONSUMERS' CHOICE 2022 2023
Singapore Prestige Brand Award 2020/21
SME EXCELLENCE BUSINESS AWARD 2022/2023
SINGAPORE ENTREPRENEUR 100 AWARD

www.holisticway.com.sg

JR Life Sciences Pte Ltd
2 Bukit Batok Street 24, #08-20
Skytech, Singapore 659480
CARE LINE 6425-4100
holistic way
holisticwaysg
Holistic Way 豪利诗威

Available at:
guardian watsons Unity