

COMMUNITY SPECIAL

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no. 68

Lifewise

Sharing The Care

FAMILY SUPPORT CAN HELP
PREVENT CAREGIVER BURNOUT



Home away from home

When to consider
assisted living p19

MR TIMOTHY LIU
CEO, DOVER PARK HOSPICE

MS LOH SHU CHING
CEO, REN CI HOSPITAL

DR PAULINE TAN
CEO, YISHUN
COMMUNITY HOSPITAL

bridging > community

COMING TOGETHER AS PART

OF THE INTERMEDIATE AND

LONG-TERM CARE NETWORK



Adding years of healthy life

WELLNESS > SUPPORTING DEMENTIA PATIENTS IN THE COMMUNITY p16

STARS FOR HEALTH

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Teamwork Makes Us Happy

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ON THE COVER: (LEFT TO RIGHT)
MR TIMOTHY LIU, CEO, DOVER PARK
HOSPICE; MS LOH SHU CHING, CEO,
REN CI HOSPITAL; DR PAULINE TAN,
CEO, YISHUN COMMUNITY HOSPITAL

PHOTOGRAPHER MARK LEE
ART DIRECTION DON LEE
HAIR & MAKEUP LENYFU



NATIONAL HEALTHCARE GROUP

EDITORIAL

Wong Fong Tze, Ong Chong Pheng, Tania Tan,
Praveen Nayago, Ng Si Jia, Nathalie Ng, Clara Poh,
Joanne Teo, Clara Lim, Eugene Seng, Kenny Hong

LIFEWISE ADVISORY PANEL

Prof Lim Tock Han, A/Prof Thomas Lew,
A/Prof Chua Hong Choon,
A/Prof Chong Phui-Nah, Prof Roy Chan



EDITORIAL & DESIGN

Contributing Senior Editor **Agatha Koh Brazil**
Senior Editor **Ronald Rajan**
Editor **Dennis Yin**
Assistant Editor **Fairoza Mansor**
Senior Writers **Wanda Tan, Phyllis Hong**
Writer **Ashutosh Ravikrishnan**
Senior Art Director **Don Lee**
Chief Photographer **Aik Chen**
Executive Photographer **Ealbert Ho**
Senior Photographer **Kelvin Chia**
Photographers **Chee Yan, Mark Lee**

CONTRIBUTORS

Jimmy Yap, Elisabeth Lee, Neo Aik Sing, Kama Berro

BUSINESS DEVELOPMENT

Senior Business
Relationship Manager **Michele Kho**
mpbcust_pub@mediacorp.com.sg

For advertisement enquiries, please email:

michelek@mediacorp.com.sg

For subscription enquiries, please email:

mpbsubhelp@mediacorp.com.sg

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Caring As A Community

T HIS ISSUE of *Lifewise* has a 'Community' theme, but what makes a community? Is it just "a group of people living in the same place"?

We find that community goes beyond a physical location but is defined by hearts that care. Having a "community of care" is essential in supporting individuals to lead an active, independent and fulfilling life at home and in their neighbourhood.

Within this model, the Intermediate and Long-Term Care (ILTC) sector is ramping up for Singapore's rapidly-ageing population, with the age-related issues it brings — dementia being a prime example. To empower residents with the ability and know-how to age well in the community, the ILTC sector is lending a helping hand to patients and caregivers alike. We speak to leaders from the sector who tell *Lifewise* about the challenges in helping seniors make the transition from independent living to assisted care (p10), and the meaning and purpose such efforts bring them.

Everyone has a place in our community, including the elderly and frail who should be assisted to age-in-place with dignity. On this theme, find out how caregivers to the elderly can take care of themselves (pg 22), and how Singapore has taken steps to integrate such patients into the community (p16).

The best planning starts with ourselves. Let's equip ourselves with the knowledge of what to expect for the time when we might have to make the call for a loved one — or even for ourselves — to live in assisted care (p19).

There is strength — and help — in numbers, especially when we know we are part of a huge community — one that has our interests at heart.

THE EDITORIAL TEAM



GERONTOLOGY

DRIVING TOWARDS DEMENTIA

Air pollution and traffic noise can lead to lower levels of cognition. But now, a decade-long study of 6.6 million adults aged between 20 and 85 has further found that those who lived closest to roads with major traffic suffered higher risks of dementia.

Over the study period, more than 243,000 people developed dementia, 31,500 people developed Parkinson's disease and 9,250 people developed multiple sclerosis. There was no link between living near a busy road and Parkinson's disease or multiple sclerosis. But those living within 50 metres of a busy road had a seven per cent higher risk of developing dementia. The risk decreased to four per cent if people lived 50 to 100 metres from major traffic, and to two per cent if they lived 101 to 200 metres away.

"Air pollutants can get into the blood stream and lead to inflammation, which is linked with cardiovascular disease and possibly other conditions such as diabetes. This study suggests air pollutants that can get into the brain via the blood stream can lead to neurological problems," said Ray Copes, chief of environmental and occupational health at Public Health Ontario, who conducted the study with colleagues from Canada's Institute for Clinical Evaluative Sciences. The study was published in *The Lancet* journal.



THOSE LIVING WITHIN 50 METRES OF A BUSY ROAD HAD A SEVEN PER CENT HIGHER RISK OF DEVELOPING DEMENTIA



MEDICINAL CHEMISTRY

Look! What Have You Left Behind?

Do you know that every time you use your mobile phone, you leave a "molecular lifestyle signature" behind?

Researchers from the University of California at San Diego swabbed 39 phones and through a mass spectrometry technique, found chemical traces of the users' activities and environment. While it is not a one-to-one match like fingerprints, this "signature" can be used to build a profile of you.

According to Amina Bouslimani, co-author of a study published in the *Proceedings of the National Academy of Sciences*, it can reveal what gender you are, what medication and food you have consumed, and what grooming products you used. The information obtained could be useful for healthcare professionals who can check if patients have been taking their medications — and for criminal investigators as well.

OBESITY

Waisting Away

Move over, obesity. The new buzzword is overfat, which researchers have defined as carrying excess body fat in such a quantity that it can impair a person's health. Based on this definition, up to 76 per cent of the world's population falls in the overfat category. An estimated 49 per cent of the world's population are obese or overweight.

The research team from MAFF Fitness Pty Ltd and Auckland University of Technology proposed that waist circumference is a better indicator of metabolic health issues compared to the traditional body-



mass index. The objective of the study, published in the *Frontiers in Public Health* journal, is to push for global health efforts against chronic and metabolic diseases. For your best health, doctors often recommend that the waist should measure no more than 102 cm for men, 89 cm for women.

"This is a global concern because



THE NEW BUZZWORD IS OVERFAT

of its strong association with rising chronic disease and climbing healthcare costs, affecting people of all ages and incomes," said lead author Dr Philip Maffetone, CEO of MAFF Fitness.

PHOTOS: ISTOCKPHOTO, SHUTTERSTOCK



NEUROLOGY

THE TIPPLING POINT

The more you eat, the less hungry you become. But it seems the more alcohol you drink, the more you have the urge to eat. Scientists from the Francis Crick Institute in London have found that calorie intake from alcohol — in mice — activates those brain cells that stimulate the urge to eat. In the study, published in *Nature Communications* journal, mice ate up to a fifth more food when they were fed the equivalent of around two bottles of wine in human terms over three days, compared to those given saline solution. Dr Tony Goldstone, from the Faculty of Medicine at Imperial College London, said: "This explains the 'aperitif effect' where people eat more when they have had some alcohol. The study shows it is not just a social effect."

WELLNESS

A WEEKEND AFFAIR

Time-pressed to exercise on weekdays? A weekend gym pass is not a bad idea at all, now that a study has found that "weekend warriors" — those who cram the recommended amount of weekly exercise into one or two workout sessions — can still enjoy significant health benefits.

Researchers from Loughborough University in England and the University of Sydney analysed data from 63,591 adults in England and Scotland on the time they spent on exercise over 18 years. Findings show that those who met the physical activity target by exercising through the week had a 35 per cent lower risk of death than inactive adults, with cardiovascular deaths down 41 per cent and a 21 per cent lower risk of cancer death. Weekend warriors also enjoyed lower risks which were almost similar to what regular exercise offers, regardless of their gender.

However, the study's author Dr Gary O'Dovovan highlighted that the best way of meeting the weekly recommended exercise is still unknown. Health experts also noted that this study only examined mortality and did not assess fitness level or the risk of injury. The study was published in the *Journal of the American Medical Association: Internal Medicine*.



PSYCHOLOGY

What Price Healthy?



If you believe that ‘healthy’ food should cost more and higher-priced food is healthier, you are not alone. This expensive-equals-healthier bias was established across five experiments conducted on different participants, and its results published in the *Journal of Consumer Research*.

In one experiment, participants were shown two different chicken wraps, as well as the ingredients of each, on a computer screen. A wrap was listed as higher-priced for one group, and as cheaper for another group. When the two groups had to pick what they perceived as the healthier option, they were more likely to choose the wrap that was priced higher.

An unfamiliar ingredient priced relatively high would also increase consumers’ perception of its importance in a healthy diet. “It makes it easier for us when we’re shopping to use this lay theory, and just assume we’re getting something healthier when we pay more.

“But we don’t have to be led astray. We can compare nutrition labels and we can do research before we go to the grocery store. We can use facts rather than our intuition,” advised Rebecca Reczek, co-author of the study and Professor of Marketing at The Ohio State University’s Fisher College of Business in the US.



COMPARE NUTRITION LABELS AND DO RESEARCH BEFORE GOING TO THE GROCERY STORE

CARDIOLOGY

BEATING GENETICS

Take heart if you have a family history of heart disease — researchers say that genetic heart disease risks can be cut significantly by maintaining a healthy weight, not smoking, exercising frequently and following a healthy diet.

An analysis of data from more than 55,000 people across four studies showed that while genes can double the risk of heart disease, a desirable lifestyle cuts it by half. Similarly, the benefits of good genetics can be eroded by bad eating and living habits.



The analysis, led by Massachusetts General Hospital in Boston, is published in *The New England Journal of Medicine* and its findings were presented at the American Heart Association’s scientific sessions in New Orleans. As most of the participants were Caucasians, there are plans to expand the research to include a more racially-diverse population.



MICROBIOLOGY

WORMWOOD TO FIGHT TB

Chinese pharmaceutical chemist Tu Youyou won a Nobel Prize in 2015 for identifying artemisinin, a compound from the wormwood plant, as a powerful anti-malaria treatment. A research team led by microbiologist Robert Abramovitch from Michigan State University, has recently found that artemisinin also has a potential role in fighting tuberculosis.

Our immune system typically combats the tuberculosis-causing bacteria, *Mycobacterium tuberculosis* (Mtb) by depriving it of oxygen. But the bacteria goes into a dormant protected state when it senses low oxygen. After analysing about 540,000 compounds, the researchers found that artemisinin disrupts Mtb’s oxygen sensor, which hypothetically should increase the bacteria’s vulnerability to tuberculosis treatments.

More research needs to be conducted before artemisinin can be used in tuberculosis treatment, but the research team said that “this new method of targeting dormant bacteria is exciting”. The study was published in *Nature Chemical Biology journal*.

WELLNESS

Give Care, Live Longer

Past studies have shown that taking care of grandchildren reduces the risk of depression for seniors, besides improving their cognitive function. Now, new research has found that older adults who provided care for someone in their social network — grandchild or not — lived longer than those who didn't.

A survival analysis was conducted on over 500 people aged between 70 and 103 years, drawing on data from the Berlin Aging Study collected between 1990 and 2009. Half of those who took care of their grandchildren were still alive about 10 years after the first interview in 1990. The same was true for those who did not have grandchildren but who supported their children through acts like helping with housework. In contrast, about half of those who did not help others died within five years.

However, the study does not confirm that caregiving increases lifespan. "A moderate level of caregiving involvement does seem to have positive effects on health. But studies have shown that more intense involvement causes stress, which has negative effects," said study co-author Ralph Hertwig, Director of the Center for Adaptive Rationality at the Max Planck Institute for Human Development in Berlin.

Published in the *Evolution and Human Behavior* journal, the survey was conducted by researchers from the University of Basel in Switzerland, Edith Cowan University in Perth, University of Western Australia, Humboldt University of Berlin and the Max Planck Institute for Human Development.



ORTHOPAEDICS

Longstanding Problem

It seems that we humans have evolution to blame for hip and shoulder pain. A research team from Oxford University studied 300 specimens from different species of animals that existed across 400 million years including reptiles, primates and Neanderthals to examine how bone structures have changed over time. The neck of the thigh bone has grown broader to support extra weight as our predecessors evolved from walking on four legs to standing up. And the thicker this neck, the more likely that arthritis would develop.

Researchers also found that a natural gap in the shoulder structure through which tendons and blood vessels travel has also become narrower through evolution. This narrowing gap makes it difficult for tendons to move naturally and this causes pain in some people when they reach overhead.

How would skeletons change over the next 4,000 years? "What is interesting is if we try and move these trends forward, the (thigh bone) shape that is coming has an even broader neck and we are trending to more arthritis," said lead researcher Dr Paul Monk from the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences in the UK.

NUTRITION

Make Mine Magnesium

Time to load up on more nuts, green leafy vegetables and bananas, as a new study published in the *MBC Medicine* journal showed the benefits of a diet rich in magnesium.

Researchers from Zhejiang University and Zhengzhou University in China studied data from more than one million people across nine countries in 40 epidemiological studies from 1999 to 2016, to investigate associations between dietary magnesium and various diseases.

People who ate food highest in magnesium had a 10 per cent lower risk of coronary heart disease, 12 per cent lower risk of stroke and a 26 per cent lower risk of type-2 diabetes compared to those who ate food that had the least levels. An extra 100mg per day of dietary magnesium could also reduce risk of stroke by seven per cent and type-2 diabetes by 19 per cent. The effect of other biological or lifestyle factors cannot be ruled out but one thing is clear — magnesium is vital for normal biological functions including the breaking down of glucose to produce energy.



DERMATOLOGY

SKIN CANCER AND WHITE WINE



This could be reason enough to lay off the tippie. A research team from Brown University in the US has found that a glass of white wine per day is associated with a 13 per cent increased risk of melanoma, the most lethal type of skin cancer. Published in the *Cancer Epidemiology, Biomarkers & Prevention Journal*, the findings were based on data from three large studies involving 210,252 Caucasian participants over an 18-year follow-up period.

It was also found that those who knocked back about two standard drinks (equivalent to one full glass of wine) were only two per cent more likely than non-drinkers to be diagnosed with melanomas of the head, neck, arms, or legs. But they were 73 per cent more likely to be diagnosed with melanomas of the trunk, a part of the body usually covered by clothing.

“There is a hypothesis that melanomas on different body sites may have different risk factors,” said study co-author Eunyoung Cho, ScD, Associate Professor of Dermatology and Epidemiology at the Warren Alpert Medical School of Brown University. She added that while other alcoholic drinks did not show significant association with melanoma, the study supports the American Cancer Society’s recommendations to limit alcohol intake.

UROLOGY

DITCH THE DIET DIARY



Five minutes and a urine sample are all it takes to evaluate your diet. Scientists from the Imperial College London, Newcastle University and Aberystwyth University developed this urine test by tracking 19 volunteers who followed four different diets, ranging from very healthy to very unhealthy, for 72 hours.

The samples were then assessed for the hundreds of compounds that are produced when certain foods are digested by the body. A urine metabolite profile which indicates a healthy and balanced diet was then created and used to compare with the urine samples of 300 other volunteers to see if it could accurately determine if diets were healthy. “For the first time, this research offers an objective way of assessing the overall healthiness of people’s diets without all the hassles, biases and errors of recording what they’ve eaten,” said study co-author Professor John Mathers of Newcastle University.

MEDICAL TECHNOLOGY

Making Waves

Non-invasive imaging techniques for detecting cancerous tumours will soon be possible. A research team from the National University of Singapore (NUS) Faculty of Engineering and NUS Nanoscience and Nanotechnology Institute has discovered a new fabrication process to develop affordable, high-performance and low-power-driven terahertz (THz) emitters.

THz waves lie between microwaves and infrared light



waves on the electromagnetic spectrum. Being non-ionising and non-destructive, THz waves can pass through non-conducting materials such as clothes. This makes THz waves ideal for use in areas such as cancer diagnosis, as well as detection of chemicals, drugs and explosives.

Unlike traditional emitters that are often bulky and expensive, the newly-developed radiation sources emit THz waves with a higher power output at a lower operating cost and its fabrication technique is commercially scalable.

“Fabricating our device on a flexible surface also opens up many exciting possibilities for it to be incorporated into wearable devices,” said co-leader of the research team Associate Professor Yang Hyunsoo.

PHARMACOLOGY

MORE PANIC, MORE SIDE EFFECTS



Patients on depression medication report more side effects if they also suffer from panic disorder.

Researchers looked at data from 808 patients with depression, of which 85 also had panic disorder, and who were given antidepressants as part of a 12-week trial. Those with both conditions were more likely to self-report gastrointestinal, cardiovascular, neurological or urinary side effects.

The study was led by the University of Illinois at Chicago and published in the *Journal of Clinical Psychiatry*. "Because these patients experience panic attacks with symptoms including heart racing and shortness of breath, they're acutely attuned to bodily changes that may signal another panic attack coming on. So it makes sense that these patients report more physiological side effects with antidepressant treatment," said lead author Stewart Shankman, Professor of Psychology and Psychiatry at University of Illinois.



GERONTOLOGY

Saunas And Dementia

Other than relieve stress, saunas can reduce dementia risk in men. When 20 years' worth of data of over 2,000 men aged 42 to 60 were analysed, researchers from the University of Eastern Finland found that compared with men who used a sauna once a week for about 15 minutes, men who used it four to seven times weekly had 66 per cent lower risk of dementia — and in particular, a 65 per cent lower risk of developing Alzheimer's disease. Variables like age, alcohol consumption and blood pressure were also taken into account. More studies are needed to establish the links between sauna bathing and memory diseases. "The sense of relaxation experienced during sauna bathing may play a role," said Professor Jari Laukkanen, leader of the research team. The study was published in the *Age and Ageing* journal.

LEARN ABOUT HEALTH WITH ADVICE FROM EXPERTS, AND INTRODUCE *LIFEWISE* TO YOUR FRIENDS.

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THE COMMUNITY THAT



From left: Mr Timothy Liu, Ms Loh Shu Ching and Dr Pauline Tan.

In 2015, Mr Heng Peng Swan was hit by a lorry and suffered severe injuries, including a badly broken leg. He was admitted to Khoo Teck Puat Hospital where he got better, but regaining use of his leg required patience and perseverance. When Mr Heng was strong enough to begin rehabilitation, he was transferred to Yishun Community Hospital (YCH) to start the next phase of his recovery.

There, doctors, nurses and therapists helped him get back on his feet — not only through physical rehabilitation but also art therapy, which kept him motivated throughout the long

recovery process. As he grew strong enough to be discharged, the YCH team also began making arrangements to ensure Mr Heng had the right support in the community. They assessed his home and neighbourhood, and arranged for nursing services, physiotherapy sessions and follow-up appointments.

Success stories like Mr Heng's show the important role of Singapore's intermediate and long-term care (ILTC) sector. The sector comprises community hospitals, nursing homes, chronic sick facilities, hospices,

AS SINGAPORE'S POPULATION AGES, JUST WHAT IS NEEDED TO MAKE THE TRANSITION FROM INDEPENDENT LIVING TO ASSISTED CARE AS SEAMLESS AND AS BENEFICIAL AS POSSIBLE FOR THOSE AFFECTED? LEADERS FROM THE INTERMEDIATE AND LONG-TERM CARE SECTOR TELL *LIFEWISE* ABOUT THE CHALLENGES IT FACES, AS IT EXPANDS TO MEET INCREASING NEEDS OF OUR COMMUNITY.

CARES

BY **ASHUTOSH RAVIKRISHNAN**
 IN CONSULTATION WITH
DR PAULINE TAN CEO //
 YISHUN COMMUNITY HOSPITAL AND
MS LOH SHU CHING CEO //
 REN CI HOSPITAL AND
MR TIMOTHY LIU CEO //
 DOVER PARK HOSPICE AND
MR JOE ONG COO //
 SOCIETY FOR THE AGED SICK



72 nursing homes, cater specifically to the elderly. These care for seniors who are unable to care for themselves or whose families are not able to provide the care they need. “Home nursing and day rehabilitation services are also available to help the elderly age-in-place,” Ms Loh Shu Ching, CEO of Ren Ci Hospital tells *Lifewise*. The charity organisation runs two nursing homes, with a third slated to open later this year, and also offers home nursing and senior day care services.

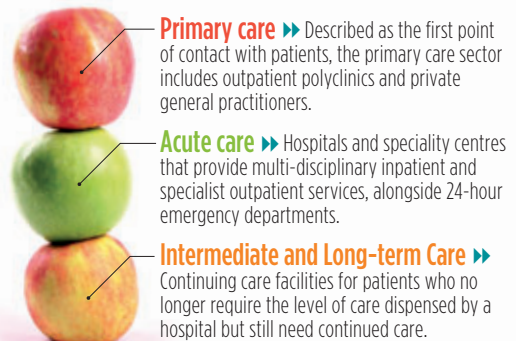
The ILTC sector is a vital component to support the needs of the country’s rapidly ageing population. As part of the sector’s expansion, more than 9,000 beds will be added to community hospitals and nursing homes by 2020. Some 7,500 more places will also be added to day, home and palliative care services across the island.

senior care centres and home-based service providers. Together, they support patients who need further care and treatment after being discharged from an acute hospital, and frail elderly who need assistance in daily living at home and in the community.

Community hospitals “provide sub-acute care to help patients return to their pre-injury/illness state as much as possible,” says Dr Pauline Tan, CEO of Yishun Community Hospital (YCH). While seniors make up a large proportion of patients at community hospitals, there are also younger ones who may be admitted for physical rehabilitation.

Other ILTC facilities, such as Singapore’s

A TRIPARTITE APPROACH TO HEALTHCARE



“Community care facilities are in a unique position to tackle future healthcare challenges. Acute hospitals are required to have quick turnover rates, but community hospitals and other ILTC facilities don’t face as much pressure,” says Dr Tan. “Our staff can help prevent patients from being readmitted to acute hospitals since we have more time to rehabilitate them and hone the functional skills they may have lost because of their illness or injury.” She lists cooking and craft classes as examples of activities to improve the dexterity and motor skills of patients.

“Therapy also goes beyond the physical; sometimes patients have psychosocial or spiritual needs that we can help meet,” says Dr Tan, recalling a patient in palliative care in YCH who wanted to colour his hair. His occupational therapist bought hair dye and helped the patient to dye his hair in the ward. “The patient passed away shortly after but it was a chance to make him feel good again and boost his self-esteem in his final days,” she says.

OUR STAFF CAN HELP PREVENT PATIENTS FROM BEING READMITTED TO ACUTE HOSPITALS SINCE WE HAVE MORE TIME TO REHABILITATE THEM AND HONE THE FUNCTIONAL SKILLS THEY MAY HAVE LOST.

DR PAULINE TAN, CEO OF YISHUN COMMUNITY HOSPITAL, ON THE ROLE OF COMMUNITY HOSPITALS

Partners In Health

Despite each playing different roles within Singapore’s healthcare landscape, acute and community care facilities enjoy a strong working relationship. “This partnership has grown over the years, as community care facilities have raised their standards and confidence in the sector has grown,” explains Ms Loh, who made the switch to the community care sector from an acute setting, eight years ago. Much of the improvements in the sector are a result of close collaborations with acute care partners.

Mr Timothy Liu, CEO of Dover Park Hospice (DPH) has seen the positive effects these collaborations have had on the hospice’s operations. “Most of our residents are cancer patients. When they are first admitted, oncologists from Tan Tock Seng Hospital (TTSH) share patient histories and personally continue the information flow, which helps hospice staff better understand each case. This sort of continual care helps us to carry out our duties more effectively.”

Staff from acute hospitals have also led projects to provide home palliative care. Dr Allyn Hum, a senior consultant at TTSH’s Centre for Geriatric Medicine, is the programme director for Temasek Cares — Project Dignity. The collaboration between TTSH, DPH and non-profit organisation Temasek Cares was rolled out in 2014 to provide palliative care for advanced dementia patients in their homes. Over three years, it has benefited more than 500 persons with dementia as well as their caregivers. “Initiatives like this are a testament to the strong partnership between the acute and community care sectors,” says Mr Liu.

ILTC SECTOR in Singapore

72 nursing homes

Catering to seniors who cannot receive adequate care at home, these facilities provide long-term care, including specialised care for patients with dementia and stabilised psychiatric conditions.

7 community hospitals

These intermediate care facilities provide convalescent and rehabilitative care to patients who no longer require acute care.

53 home care providers

Encouraging elderly to age in place, these providers offer a range of services at the homes of patients, including medical, nursing, rehabilitative and palliative care services.

57 day care centres

Supporting elderly patients whose family members are at work in the day, these facilities provide enhanced care services alongside social day care services.

FIGURES AS OF 2015; HEALTHCARE MANPOWER PLAN 2020.

15,000 the number of staff needed in the ILTC sector by 2020

SOURCE: MOH HEALTHSCOPE

Hospital With A Soul

"I'VE SPENT MORE THAN 30 YEARS in the healthcare sector and have seen the dizzying pace at which acute care hospitals work. Working this way can make us lose sight of why we do what we do. I understand that the pace of work has to be this way at acute care hospitals because of the nature of the setting. Entering the ILTC space seemed like a logical next step, as it allows me to directly impact the ground, while also letting me spend more time with patients.

I urge my team at YCH to always remember their calling, as this can be a useful motivator. I hope to nurture a hospital with a soul, where staff inject humanity into their work. Although the sector is challenging, we shouldn't accept the status quo but approach our duties with a sense of purpose and innovation, so that the patient experience can be improved.

Public healthcare is a sunrise industry and I think the sky's the limit here. I'm a typical example: I started off as a nurse and with given opportunities, have risen through the ranks. There is space for all of us to grow here, whether it's in the acute, primary or ILTC sectors." says Dr Pauline Tan, 56, CEO of Yishun Community Hospital. She was previously with the Ministry of Health as its Chief Nursing Officer and was instrumental in launching the National Nursing Taskforce in 2012 to chart the development of the profession nationally.



Similar collaborations have also been launched in nursing homes. As part of Project Care, TTSH deploys three doctors, seven nurses and a medical social worker to seven nursing homes daily. These professionals assess and treat residents at the homes. "The initiative upsills our staff, as they learn more about advance care planning and end-of-life care," says Ms Loh. Collaborations like this have helped Ren Ci in its efforts to provide dementia care.

Besides collaborative programmes, acute and community care facilities are increasingly being connected physically. Both YCH and Ren Ci Community Hospitals have link bridges that connect the facilities to their neighbouring acute care institutions — Khoo Teck Puat Hospital and TTSH, respectively. "These link bridges are symbolic of our close relationship with our acute care partners," says Ms Loh. "They promote the easy flow of patients and staff."

Managing Manpower

Despite their expanding presence, misconceptions linger about the community care sector. "Some people believe that they can't make as good a career or living in the community care sector," says Ms Loh. But as Mr Joe Ong, Chief Operating Officer (COO) of the Society for the Aged Sick

points out, this is not true. "A career in the ILTC sector offers a level of professional depth that the acute care sector may not be able to. Each organisation also has its own career growth programmes and these are constantly being reviewed to ensure they are competitive," he says.

However working in the ILTC sector is not for everyone. For example in a hospice, patients leave not because they recovered but because they have passed away. "We are mindful that not everyone has the emotional strength to withstand this kind of stress," says Mr Liu, adding that DPH has measures in place to ensure the emotional wellbeing of its staff.

WHERE TO GET HELP?

I have a medical emergency and/or need specialist care.
I CAN GO TO A... **ACUTE HOSPITAL**

I have been discharged from the acute hospital but need a bit more time to recover before heading home.
I CAN GO TO A... **COMMUNITY HOSPITAL**

I am at the end of life and require round-the-clock care.
I MAY NEED A... **HOSPICE**

I am frail and do not have anyone to care for me at home.
I MAY NEED A... **NURSING HOME**

To ramp up manpower in the sector, the Government has introduced a slew of initiatives, such as the Return-to-Nursing scheme which equips former nurses with the skills needed to re-join the profession in the community care sector. Young adults can also tap on several scholarships and sponsorships to pursue healthcare training programmes. “I think it’s timely, because we need to teach our young medical professionals about working in the ILTC sector, just as much as we teach them about working in the acute care sector,” says Ms Loh.

INITIATIVES LIKE THIS ARE A TESTAMENT TO THE STRONG PARTNERSHIP BETWEEN THE ACUTE AND COMMUNITY CARE SECTORS.

MR TIMOTHY LIU, CEO OF DOVER PARK HOSPICE (DPH)



A Divine Intervention

MR TIMOTHY LIU'S PREVIOUS POSITION in regional sales required him to travel regularly. “It was exhausting and kept me away from my family,” says the father-of-two, who was appointed CEO of Dover Park Hospice last year. “I felt it was time for me to spend more time with my loved ones, especially because my father was diagnosed with bladder and liver cancer, and my mother suffers from moderate Alzheimer’s.”

His new position was nothing short of a “divine intervention”, says Mr Liu, 45, as it suited his new priorities. Coming from a different industry meant that he faced a steep learning curve. “But everybody, from the hospice staff to community partners, was really committed to helping me learn. They were ready to share the knowledge they had picked up over the years and this has helped me get a better understanding of the hospice sector. The community cares, but I’ve learnt that it also shares.”

Despite initial challenges, Mr Liu remains motivated to bring DPH to new heights. He hopes that through his work, he can help the community to see hospices in a different light. “People think of a hospice as a dark and gloomy place, but the environment really is quite different. We want to make our patients feel like they’re coming to a second home, with lots of large windows, sunlight and nature close to them — that’s what my team sets out to do every day.”

Turning To The Community

In addition to such schemes, Dr Tan believes that the community is a valuable resource that can be tapped on further. “Our labour force is shrinking and increasing our reliance on foreign labour is not sustainable. The community can help to take ownership of the vulnerable among us and volunteering in the ILTC sector is one way of doing this,” she says. To recruit more volunteers, YCH has opened its doors to students and staff of nearby schools as well as retirees, including community gardeners, who each can offer different talents to the hospital’s operations.

Similar initiatives have also been introduced to ‘de-medicalise’ nursing homes. “Ren Ci’s nursing homes have minimal physical barriers, so the facility is really a part of the community. Ren Ci @ Bukit Batok Street 52 has a gym that is open to the public. This helps to change public perceptions of ILTC and promote community ownership, explains Ms Loh.

Funding is another area of concern for the sector. For most, donations remain a major source of funding. At DPH, for example, donations cover nearly

Gaining New Perspectives

HAVING MADE THE SWITCH from the acute care sector to the ILTC sector has helped Ren Ci Hospital CEO Ms Loh Shu Ching understand the challenges and pressures both sides face. “This is useful when I deal with our acute care partners, as I understand their lingo and can see things from their perspective,” she says.

The 50 year-old was seconded to the Home Nursing Foundation, a voluntary welfare organisation that provides home care, from Tan Tock Seng Hospital in 2009. Two years later, she was made CEO of Ren Ci, where she has worked tirelessly to forge deeper partnerships with acute care organisations. “We have an almost symbiotic relationship and taking advantage of this can take both sectors to new heights.

“I’ve seen the community care sector transform to become a true partner — in every sense of the word — of the acute care sector. This has been possible because of greater confidence and trust placed in the sector, which is a result of multi-disciplinary efforts to bring it forward.”

• **THE MOST SATISFYING PART OF MY JOB ...**

is seeing the difference I make. The community care sector is unique because you can see the impact of every decision you make — this is because of the smaller nature of facilities in the sector. I’m also happy to see the shift in attitudes within the healthcare sector towards community care and the work that we do.

• **MORE NEEDS TO BE DONE TO ...** change public perceptions about community care. I think community interaction and engagement can help with this, especially at a young age, when minds are easier to shape.

30 per cent of its annual expenditure. Securing these funds can be challenging, says Mr Liu. “There are many worthy causes out there and convincing people to give to palliative care take effort. But there are some individuals and organisations who continue to support us and we are grateful for their continued support.”

Despite these challenges, professionals within the community care sector remain undaunted and are committed to their work. “It’s a very meaningful sector to be in,” says Ms Loh, who has helmed Ren Ci since 2011. “If you’re an administrator in a large hospital, chances are you won’t be able to interact with patients. But in ILTC facilities, we encourage administrators to also build relationships with patients.”

Adds Mr Liu, “In the medical fraternity, there’s a tendency to see individuals as patients and not people. I think the community care sector is leading the shift away from this attitude, which will help create a society that is truly compassionate towards the aged and sick.” **LW**

The Agency for Integrated Care runs a career portal for the ILTC sector. Visit **carecareers.sg** for more.



LINK BRIDGES ARE SYMBOLIC OF OUR CLOSE RELATIONSHIP WITH OUR ACUTE CARE PARTNERS.

MS LOH SHU CHING, CEO OF REN CI HOSPITAL, ON THE PHYSICAL BRIDGES THAT LINK COMMUNITY CARE FACILITIES AND THEIR ACUTE CARE COUNTERPARTS.

WANT TO HELP? DONATE OR VOLUNTEER

▶▶ Ren Ci Hospital and Nursing Home

For online donations, visit <http://www.renci.org.sg/donate/> or use the following channels:

• Cheque • Online • AXS • GIRO • Donation Boxes • Charity Certificates
For more information, contact 6355 6477 or email renci@renci.org.sg

▶▶ Be a YCH Volunteer

Join us and be an integral member of our care team. You can offer your services in various areas such as befriending, gardening, mobile library, music and arts etc. We welcome volunteers from all ages and all walks of life — retired professionals, working adults, home makers and students. Visit www.yishuncommunityhospital.com.sg or email yhc.volunteers@alexandrahealth.com.sg for more information.

▶▶ Dover Park Hospice

For more information on our services, volunteerism programme, or to make donations, please contact 6500-7272 or visit www.doverpark.org.sg

AT FIRST GLANCE, the village of De Hogeweyk, near Amsterdam in the Netherlands, is an average community. Residents go about normal everyday activities like meeting their friends for lunch at the local restaurant, getting their hair done at the salon or buying groceries to make dinner.

However, neither the village nor its residents are typical. Instead, De Hogeweyk is a purpose-built facility for patients with dementia where service staff including waiters, hairdressers and shop assistants, are also the residents' caretakers.

Unique Care Model

Built in 2009, De Hogeweyk — operated by nursing home Hogeweyk — is a gated community which takes a novel approach to caring for dementia patients. The idea for the village came to Ms Yvonne van Amerongen, who worked in a Dutch nursing home, in 1992. Following the sudden death of her father, Ms Van Amerongen felt driven to make nursing homes more liveable for elderly patients. Intentionally set apart from the clinical and

institutionalised environment of a nursing home, her model is inspiring others to rethink dementia care.

Dementia is a medical condition which causes a decline in mental ability to the point where it affects daily life. It usually affects the elderly although early onset can occur in adults in their 30s or 40s. Symptoms include memory loss, loss of language and/or cognitive ability.

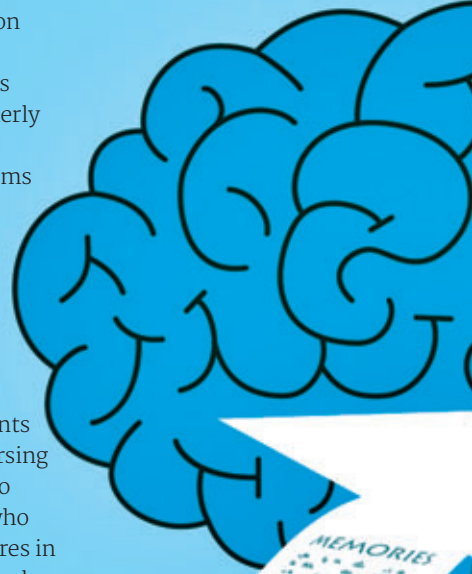
Spread over 1.5 hectares — about two football fields — De Hogeweyk has been designed to help dementia sufferers live as independently as possible. The privately-run facility costs residents about as much as a traditional nursing home in the Netherlands. It is also supported by the general public who can patronise restaurants and stores in the village. Family and friends are also encouraged to visit.

Residents live in homes designed and furnished in a retro style so that they feel at home, like they are living in a familiar time zone. They move about freely within the compound, and are encouraged to socialise and engage in normal daily activities, all under the watch of professional caregivers.

It takes a VILLAGE

AS SINGAPORE AGES,
STRENGTHENING DEMENTIA
CARE IN THE COMMUNITY
IS A PRIORITY.

BY JIMMY YAP





40,000

The estimated number of people who have dementia in Singapore

who provide round-the-clock care when needed. For their safety, residents are not permitted to leave the village. Those who do wander to the facility's single exit are politely advised to find an alternative route.

Studies have shown that village residents appear happier and require fewer medications than those in standard care facilities.

The success of the Hogewey model of care has spawned similar villages around the world, the most recent being the Svendborg Demensby (Svendborg Dementia Village) in Denmark, which officially opened in late 2016. It has 125 homes, a shopping street, fitness centre, library and restaurant. Residents there live in communal housing with shared kitchens and living rooms.

"Dementia Village, with its good framework and fantastic opportunities for physical activities, will help give its residents a better quality of life. Dementia Village also gives us an incredibly unique experience that we can apply to other care centres with dementia residents," spokeswoman Hanne Ringgaard Møller of Svendborg Municipality told the *Daily Scandinavian* website. There are plans for more such villages in Denmark.

PHOTOS: GETTY IMAGES, SHUTTERSTOCK

TAN TOCK SENG HOSPITAL BRINGS DEMENTIA CARE INTO THE COMMUNITY

To enable dementia patients to be cared for in the community, Tan Tock Seng Hospital (TTSH) has set up a network to train community-based healthcare professionals in the Central Region of Singapore to look after them.

Launched in 2015, the Geriatric Integrated Network for Dementia (GerIND) has patients with dementia cared for by doctors, allied health professionals (AHPs) and nurses at Ang Mo Kio (AMK) Polyclinic and General Practitioners in the Central Region. Other partners include the Care for the Elderly Foundation and the Agency for Integrated Care.

The programme began as a pilot in 2012 with patients from TTSH being discharged to AMK Polyclinic Dementia Clinic. During the pilot, a multi-disciplinary team of doctors, social workers and psychologists from both institutions worked closely together to ensure that dementia patients could remain well in the community without the need for hospital intervention. Caregivers also receive useful tips on managing dementia patients including how to address repetitive or anti-social behaviour.

Initial results have been promising. Patients discharged from TTSH to the AMK NHGP Dementia Clinic required fewer hospital visits, with savings in direct medical costs, day-care and indirect costs like time spent by caregivers. Caregivers also reported feeling less stressed. Apart from enabling stable patients to receive care close to home, the programme also frees up TTSH's capacity to see more new and complex cases that require specialists' interventions.



Dementia In Singapore

In Singapore, an estimated 40,000 people have dementia. By 2020, this number is expected to rise to 53,000 with our rapidly ageing population. While there are currently no facilities similar to those of De Hogeweyk or Svendborg, healthcare providers are constantly looking at new ways to help patients with dementia. In 2016, the Khoo Teck Puat Hospital and Lien Foundation launched Singapore's first dementia-friendly town in Yishun.

Under the programme, over 2,000 students and frontline staff at hospitals, businesses or places of worship in Yishun have been trained to spot people with dementia. They were also taught how to interact with dementia sufferers and

provide assistance for those who need help. To increase awareness of dementia, some 58,000 dementia guides were distributed to households and businesses in the area.

The programme aims to foster a caring community for persons with dementia. With more people who recognise the condition and equipped to help, dementia sufferers who get lost in the neighbourhood

to points' where members of the public can bring dementia sufferers who are lost to be reunited with their caregivers. These points include REACH Community Services and the Hong Kah North Community Club. Plans for other dementia-friendly towns in Singapore are currently underway.

As Singapore ages, more and more people here will have dementia. New

OVER 2,000 STUDENTS AND FRONTLINE STAFF AT HOSPITALS, BUSINESSES OR PLACES OF WORSHIP IN YISHUN HAVE BEEN TRAINED TO SPOT PEOPLE WITH DEMENTIA.

or unknowingly forget to pay for things from shops, can get appropriate help.

Hong Kah North has also joined the movement to be a dementia-friendly community. In addition to training, the district set up several 'go-

treatment models for helping dementia sufferers beyond the traditional nursing home will make it easier for dementia sufferers, their caregivers and society at large to cope. **LW**



BE K.I.N.D.

PERSONS WITH DEMENTIA (PWD) MAY WORK OR LIVE AMONG US. HERE IS HOW YOU CAN INTERACT WITH AND ASSIST THEM USING THE K.I.N.D. GESTURE.

K eep a lookout for the following behaviour:

- Looking lost and confused
- Speaking incoherently
- Shouting or hitting others
- Seeing or hearing things that are not real
- Accusing others of stealing their things
- Repetitive actions that appear purposeless
- Removing clothes



I nteract with care:

- Be clear, simple and patient
- Acknowledge their concerns
- Be respectful and reassuring
- Engage to provide comfort and build trust



N otice the PWD's needs and offer help:

- Consider their feelings and respond appropriately
- Use visual cues, such as pictures and drawings, to understand their needs
- Look for the next-of-kin's contact details on their IC, National Council of Social Service (NCSS) card or EZ-Link card

D ial for help— if you are unable to provide help:

- Call their next-of-kin
- Inform immediate supervisor
- Inform security guard
- Call the police for help



For toolkits and resources on dementia, visit www.forgetusnot.sg.

IN GOOD HANDS

FOR VULNERABLE SENIORS WHO CANNOT BE CARED FOR AT HOME, A NURSING HOME MAY BE CONSIDERED.

BY **DENNIS YIN** IN CONSULTATION WITH **MR JOE ONG** CHIEF OPERATING OFFICER // SOCIETY FOR THE AGED SICK

M **ADAM LIM MOI MOI**, 59, was living alone in a HDB flat in Toa Payoh. She suffers from at least five different chronic conditions including stroke, depression, hypertension, asthma and Parkinson's disease. As she cannot read or write in English, managing her own medications at home was also a challenge. Over time, her poor health led to frequent falls at home and admissions to the hospital.

In 2011, her many visits to the Emergency Department came to the attention of hospital medical social workers, who recognised Mdm Lim's plight. They secured a place for her at the Society for the Aged Sick (SAS) nursing home in Hougang, where she has stayed since.

SAS is a non-profit nursing



SAS Finance Officer, Ms Jessie Tay, makes it a point to chat with resident Mr Ong Kow whenever she passes his ward.

home that works closely with the National Healthcare Group and Tan Tock Seng Hospital to support the elderly in our community. Besides 24-hour care, the nursing home offers in-house medical services and

facilities including doctor visits and rehabilitation, so residents do not have to travel for their check-ups and therapies. If the need arises, staff will accompany residents for their hospital appointments.

National Healthcare Group volunteers bring cheer to SAS residents

To keep residents active, SAS organises outings to places of interest such as Chinatown and the Singapore Flyer, and activities such as art-and-craft lessons. Residents are also assigned simple daily tasks like folding laundry. They watch TV, read, stroll around the compound and interact with other residents and staff.

Volunteer groups, such as those from the National Healthcare Group (NHG), also play a vital role in befriending and engaging residents in a range of different activities.

Since 2015, four-man volunteer teams from Group Corporate Communications and NHG staff have been making fortnightly visits to SAS, where they organise painting, baking, game sessions or outings with residents.



The sessions give staff an opportunity to interact more closely with patients and residents in the community. "Helping the elderly at SAS brought back memories of my late father in the months before he passed away. It was an emotional but rewarding experience because I could see the eyes of the residents light up when they had someone new to talk to," said Ms Vicky Sharma, Senior Executive, Group Corporate Communications.

FACTORS TO CONSIDER

Applying for a nursing home can be a tough decision. Mr Joe Ong, COO, SAS, advises patients and families to consider the following before making a decision:

▶▶ Ensuring all possible avenues for home and community care

Have family members explored day care or employing a domestic helper?

▶▶ The wishes of the elderly should be taken into consideration

Does the elderly person want to stay in a nursing home?

▶▶ Be mindful of their concerns

The idea of living in a nursing home can be daunting for some as it represents a significant change in lifestyle and habits. Be sensitive and have patience with your loved ones when broaching the subject.

▶▶ Staying in touch

Is the family committed to visiting their loved one regularly in the nursing home?

▶▶ Finances

Can the family afford nursing home fees? If not, are they eligible for subsidies?

“Family members need to assure the senior that they are not forsaking them. Family members can do this by visiting the resident regularly after he or she has been admitted to the nursing home,” says Mr Ong.

In Need Of Care

Being able to live out one’s golden years independently at home, among friends and family, is still the preferred choice for most people. However, for some like Mdm Lim, complex illness and living alone without social support make independence difficult, explains Mr Joe Ong, Chief Operating Officer (COO), SAS. Over time, this vulnerable group of seniors becomes increasingly dependent on others, and is more likely to be admitted to a nursing home.

There are currently 460,000 people over age 65 in Singapore, of which about 40,000 live alone. Another 13 per cent, or 60,000, require help or are unable to move around.

As the population ages rapidly and complex chronic disease becomes more common, a growing number are expected

to need nursing home care. To address this need, the government aims to increase the total number of nursing home beds from 12,000 to 17,000 by 2020. There is also a need for greater public education on staying healthy and wellness.

More Than Medical Matters

While nursing homes play an important role in providing care to vulnerable seniors in the community, there are drawbacks to long-term institutionalised care.

For example, communal living means residents need to adjust to having less privacy, says Mr Ong. Loneliness is another challenge residents may face. “Many of our residents are either estranged from their family or have no living



WE ARE BOTH CAREGIVER AND FRIEND. SIMPLE GESTURES TO MAKE OUR RESIDENTS HAPPY ARE WELL WORTH IT.

MS MONTALES, IN HER 30s, SAS STAFF NURSE

IN NEED OF CARE

460,000

PEOPLE AGED 65 AND ABOVE IN SINGAPORE

60,000

require help or are unable to move around



40,000

live alone



relatives,” he explains. “It’s up to staff and volunteers to befriend them and fill that void.”

To SAS staff nurse, Ms Precious Anne Montales, residents like Mdm Lim are as good as family. She makes sure Mdm Lim takes her medication and meals, is groomed and does her exercises. On her days off, Ms Montales goes the extra mile by helping to buy clothing or hair dye for Mdm Lim.

“We are both caregiver and friend. Simple gestures to make



our residents happy are well worth it,” says Ms Montales, who is in her 30s.

Similarly, Ms Jessie Tay, who is in her 40s, has formed a good friendship with resident Mr Ong Kow. As a finance officer with SAS, Ms Tay does not need to have regular contact with residents. But she makes it a point to chat with the elderly Mr Ong, 73, who suffers from dementia and Parkinson’s disease, whenever she passes by his ward.

“He was very open with me even during our first few meetings. He spoke about the mistakes he made in his life and the difficult relationship he had with his family,” says Ms Tay, who has known Mr Ong Kow since he was admitted to SAS in 2015.

For both Ms Montales and Ms Tay, the hardest part about their work is the pain they feel when a resident dies. “Many are nice people and it is hard when one of them passes on,” says Ms Tay.

“But it is fulfilling to know that we have made each of them feel cared for during their time here,” says Ms Montales. **LW**



Society for the Aged Sick nursing home in Hougang.

MANY ARE NICE PEOPLE AND IT IS HARD WHEN ONE OF THEM PASSES ON.

MS JESSIE TAY, IN HER 40s, FINANCE OFFICER WITH SAS



WHO IS ELIGIBLE?

AN ELDERLY PERSON APPLYING TO STAY IN A NURSING HOME MUST:

- Be physically or mentally disabled because of illness.
- Be semi-mobile, use a wheelchair or is bedbound, and needs daily care and help with activities like going to the toilet or walking.
- Have tried all other care options, such as hiring a domestic worker, or using day care, home care and other services.
- Be unable to be cared for at home by family or service providers.
- Pass means-test for long-term subsidies.



It costs between \$1,200 and \$3,500 a month to stay in a nursing home (before means-testing). There are government subsidies and funds available to help pay for long-term care for those eligible.

FOR MORE INFORMATION VISIT WWW.SILVERPAGES.SG OR CALL THE SINGAPORE SILVER LINE AT 1800-650-6060.

SOURCE: AGENCY FOR INTEGRATED CARE

Caregivers MUST TAKE CARE, Too



LOOKING AFTER A PERSON WITH DEMENTIA CAN BE CHALLENGING, BUT CAREGIVERS CAN PREVENT BURNOUT IF THEY COPE WELL AND HAVE THE SUPPORT OF FAMILY MEMBERS.

BY **DENNIS YIN** IN CONSULTATION WITH
ASSOCIATE PROFESSOR LIM WEE SHIONG
SENIOR CONSULTANT // DEPARTMENT OF GERIATRIC MEDICINE //
INSTITUTE OF GERIATRICS AND ACTIVE AGEING //
TAN TOCK SENG HOSPITAL



CAREGIVING FOR THE ELDERLY

with dementia is a role that is set to increase in demand. In its last study in 2005, the Alzheimer's Disease Association Singapore found that there were 22,000 seniors (aged 65 and above) with dementia. These numbers are set to increase to 53,000 in 2020 and 187,000 by 2050, said Associate Professor Lim Wee Shiong, Senior Consultant with the Department of Geriatric Medicine, Institute of Geriatrics and Active Ageing, Tan Tock Seng Hospital (TTSH).

In Singapore, a large part of the caregiving responsibility falls on adult children, followed by spouses and grandchildren. Some of these adult children may not necessarily provide direct care but they are the decision-makers. Many of these adult caregivers are also sandwiched between having to look after their parents with dementia and their own children.

The *World Alzheimer's Report* by Alzheimer's Disease International has estimated that global dementia care cost was US\$604 billion (S\$645b) in 2010 — of which 40 to 60 per cent went to informal care provided by family, relatives and friends.

“Elderly with dementia have higher care needs. As a result of memory loss, they lose their ability to perform higher tasks such as navigating their way around and handling money, as well as basic functions like feeding, bathing and toileting.

“Some become depressed and may have paranoid delusions and hallucinations. These can be very stressful to caregivers,” says A/Prof Lim.

Stressing About Stress

Caregiver stress refers to the self-appraisal or strain that comes from one's role as a caregiver. A/Prof Lim explains that no two persons have the same experience, “One could be super stressed when looking after Mum, but another may feel that ‘yes it's tough but it's meaningful’ — as that is what they should do as someone's child.”

There are three kinds of caregiver stress: role strain, personal strain and worry about performance. In the last category, stress comes from two sources: The people around the caregivers and the caregivers themselves. Stress from others happens often in more complex or larger family structures. Siblings who are not involved in the caregiving process or live overseas, as well as relatives, may pass comments such as “Mum is looking thinner. Why are you not looking after her properly?” says A/Prof Lim.

Then there is stress that caregivers put on themselves. First, they get anxious about their parents' new diagnosis, then they start to worry about how to take care of them and how to ensure that the condition does not progress.

This is salient among Asians because of our emphasis on filial piety. So whether caregivers are thrust into the role willingly or unwillingly, they put a lot of expectations on themselves.

But wanting to do better can also be a good thing. Traditionally, mild dementia is viewed as a relatively burden-free stage of the disease. But if caregivers

do not take care of themselves, role and personal strain may set in and affect their ability to cope with caregiving tasks when dementia progresses.

Role strain is stress that comes from the demands of being a caregiver, such as worrying about how to look after a parent with dementia, and whether available finances can cover treatment costs.

Personal strain is the direct impact on caregivers, such as having less time for themselves, not being able to sleep well, or feeling embarrassed when they bring their parents out.

“Mild dementia is the best time for caregivers to equip themselves with the right skills and resources to look after the patient,” recommends A/Prof Lim.

Don't Let It Deteriorate

The burden of care goes up as the patient's condition becomes more severe. This happens during moderate stage of dementia where there are increased care needs from the patient, and the accompanying role and personal strain of the caregiver increase. When caregivers can't cope well with the tasks and don't take care of themselves, stress may lead to burnout.

An obvious pre-burnout sign is when caregivers don't find meaning in their caregiving task anymore. They may also start to display physical symptoms such as loss of appetite, insomnia and chronic fatigue. Some may even have the feeling of being detached from the world. When the caregiver eventually says, “I quit”, burnout occurs.

ADVICE FOR CAREGIVERS

- Familiarise yourself with the caregiving tasks, including how to administer medication and how to keep track of medical appointments
- Look for resources that can ease your burden, including support groups and financial schemes
- Don't be afraid to ask others for help
- Don't be afraid to ask for rest from your caregiving duties
- Meet up with friends
- Eat well, have enough rest and exercise regularly
- Try relaxation techniques such as going for walks, meditation, and doing things you enjoy
- Don't put too much pressure on yourself to perform
- Recognise that the symptoms displayed by the patient is due to the disease and not the person. You will then find it easier to manage.
- Aim to enjoy and find meaning in the process of caring.



When that happens, the care of the patient will be compromised. The burnt-out caregiver may deposit the patient at a hospital's Accident & Emergency department on the pretext of a medical emergency, and say they do not want to look after the elderly anymore. Many of these patients then end up in a nursing home.

Recharge For Resilience

There are ways to prevent burnout. A/Prof Lim uses the analogy of a mobile phone battery: “Charge your phone even when it is at three to four bars. Don't wait till one bar — when it drops to that level, you are running very thin.”

Caregivers must first acknowledge that they cannot cope with the stress and seek professional

THERE ARE ONLY FOUR KINDS OF PEOPLE IN THIS WORLD — THOSE WHO HAVE BEEN CAREGIVERS, THOSE WHO CURRENTLY ARE CAREGIVERS, THOSE WHO WILL BE CAREGIVERS AND THOSE WHO NEED CAREGIVERS.

FORMER USA FIRST LADY ROSALYNN CARTER

help, he advises. He cites the example of a 60 year-old caregiver who came to see him as a patient because she felt she was losing her memory. She only revealed the stress of looking after her 80-something year-old father when she saw the clinic's psychologist. She was not suffering from dementia herself. It was stress from the caregiving role that had affected her memory. By affirming her as a caregiver and equipping her with the necessary coping skills, the clinic team helped her to better manage stress and improve her memory.

Caregivers should also inform other family members of their stress. Another case study A/Prof Lim brought up was of a stoic man who was looking after his wife with dementia. He seemed cheerful during consultations. Another family member alerted the doctor that the caregiver was not coping well. The clinic arranged for daycare help for his spouse, so that the man could have some time to rest and unwind.

More importantly, A/Prof Lim highlights that family members should also support and affirm caregivers. “Treasure your caregivers — they are an invaluable resource. Give them time off by taking turns to look after their loved ones with dementia,” he says. **LW**



When
your

KIDNEYS FAIL

MARCH 9 IS WORLD KIDNEY DAY. FIND OUT MORE ABOUT YOUR HARDWORKING KIDNEYS AND WHY YOU COULD LIVE WITH JUST ONE OF THEM, BUT CERTAINLY NOT WITHOUT BOTH.

BY **ELISABETH LEE** IN CONSULTATION WITH **DR WENG WANTING** ASSOCIATE CONSULTANT // DEPARTMENT OF RENAL MEDICINE // TAN TOCK SENG HOSPITAL

DARK RED, smooth and shaped like a bean, the kidney is one of the more immediately recognisable organs of the human body. It is also one of the hardest-working.

Kidneys filter out waste products and extra fluid from the blood; they also regulate blood pressure, electrolyte levels and the body's pH levels. A healthy pair of kidneys can filter up to 180 litres of fluid and produce about 1.5 litres of urine a day. Without this critical filtration system to maintain balance in the body, toxins like urea can accumulate. These can affect the brain and the heart.

“As waste products build up, you may begin to experience

shortness of breath, swelling in the legs, weakness, lethargy, confusion, itching, loss of appetite, nausea and vomiting,” says Dr Weng Wanting, Associate Consultant, Department of Renal Medicine, Tan Tock Seng Hospital. “The inability [of the kidney] to remove potassium from the blood may lead to abnormal heart rhythms and sudden death.”

Kidney failure, also known as end-stage renal disease, is on the rise in Singapore. According to the National Kidney Foundation (NKF), there are about five new kidney failure patients a day, and one new dialysis patient every five hours. In 2014, about 1,730 Singaporeans suffered from kidney failure, up from 1,657 the year before.

A LONG WAIT

A kidney transplant or renal transplant is the process where a kidney is surgically removed from a donor and implanted into the patient. A kidney can come from living-related donors including family members or spouses. Siblings are usually the most compatible as their genetic make-up may closely match. Living-donor renal transplants are further characterised as genetically related (living-related) or non-related (living-unrelated) transplants, depending on whether a biological relationship exists between the donor and recipient.

In addition, the patient can also receive a kidney from a recently deceased person, known as a cadaveric donor or deceased-donor.

Transplant is by far the best means of treatment, as the “replacement kidney” can substitute almost fully the lost functions of the failed kidneys, and allow the patient to lead a normal life. Kidney transplant would be the best treatment for end-stage renal disease.

However, the waiting list for kidney transplant is long, and the National Kidney Foundation says that to date, there are more than 400 individuals on the waiting list for a deceased donor renal transplant.

The average waiting time for renal transplant is nine years. There are also patients who are not suitable or eligible for transplant because of their medical conditions and age. Hence, they need to remain on dialysis.



Why Do Kidneys Fail?

There are many reasons why a kidney stops working. Causes of kidney failure include diabetes mellitus, hypertension and glomerulonephritis. Risk factors for kidney disease also include a family history of kidney disease, cardiovascular disease, older age and abnormal kidney structure. For many people, kidney failure is often the result of complications caused by an unhealthy lifestyle.

Diabetes and high blood pressure are the two major causes of kidney disease, and both of these conditions are on the rise in Singapore. Diabetes affects about one in nine adult Singaporeans, while high blood pressure affects about one in four adult Singaporeans. According to the Singapore Renal Registry Annual Report 2015, end-stage renal failure due to diabetes accounted for two-thirds of new patients on dialysis.

Treatment Options

If your kidneys fail, your options are dialysis (see sidebar) or a kidney transplant (see box). Each option has its pros and cons. Some patients may also choose to be managed conservatively, and life expectancy may range from several weeks to a few months.

Some dialysis patients experience low blood pressure, muscle cramps, itching, sleep apnoea or anaemia. Patients undergoing dialysis also have to adhere to a special diet, and limit how much they eat and drink.

Transplant patients require special medications for life to prevent the body from rejecting the new kidney. Plus, the new kidney is still at risk of failing too, especially if poor lifestyle or dietary habits continue, or if the patient does not follow the prescribed post-transplant medication and treatment regimen.

How kidneys work, and how dialysis helps to maintain normal function

Each kidney contains up to a million nephrons, which are made up of many tiny blood vessels attached to a tubule. When blood flows through the nephrons, it is filtered and the remaining fluid passes into the tubule. In the tubule, electrolytes, water and other chemicals are either added or removed as needed, and the final product (urine) is excreted.

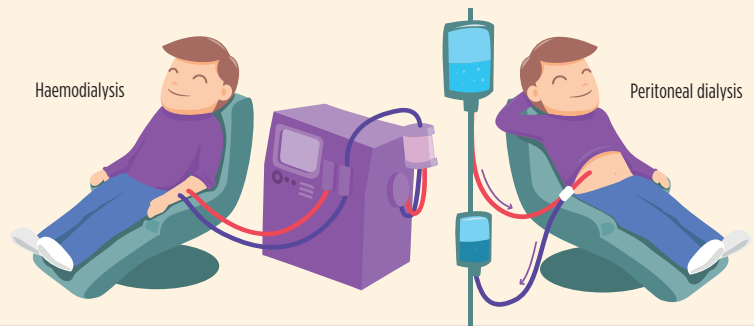
Dialysis can be used when kidneys fail. Patients who are able to undergo dialysis have two options — haemodialysis or peritoneal dialysis. Each has its pros and cons. “Deciding between haemodialysis or peritoneal dialysis is based on the patient’s medical condition, lifestyle and personal preference,” explains Dr Weng.

During **haemodialysis**, blood is pumped into a dialysis machine where it goes through a special filter called a dialyzer. Two needles are inserted (usually in the arm), one to remove the blood and one to return the cleansed blood back to the body. This method is usually done three times a week at a clinic, and takes about four hours each time.

Haemodialysis is performed in-centre by trained staff and may be preferred by patients who are unable to perform dialysis themselves e.g those who are visually-impaired.

During **peritoneal dialysis**, the lining of the abdomen, or peritoneum, acts as a natural filter. A special tube (known as a Tenckhoff catheter) is surgically inserted into the abdominal cavity. The cavity is then filled with a dialysis solution that absorbs waste and excess fluids. After some time, this fluid is drained via the tube, and replaced with fresh solution.

Peritoneal dialysis is a daily process, and can be done at home, making it more convenient for those who work or travel frequently. It is gentler and may be preferable for patients with poor heart function. But it may not be suitable for those who are morbidly obese or for those who have had prior complicated abdominal surgeries.



Prevention, is therefore the best defence, explains Dr Weng.

Get Checked Sooner

Regular health screenings and a healthy lifestyle are keys to preventing kidney failure — almost half of those with diabetes are not aware of their condition and are not treated. In 2014, around 440,000 Singapore residents aged 18 years and above were diagnosed to have diabetes.

“If you have diabetes or high

blood pressure, it is important to control your blood sugar and blood pressure to delay kidney failure,” says Dr Weng. Over the long term, high blood sugar levels and high blood pressure can damage the tiny vessels in the kidneys, reducing their ability to filter blood.

If you are overweight, you should adopt a healthier lifestyle and try to lose weight, Dr Weng advises. This means eating healthily, reducing salt intake, and limiting protein and fat intake. **LW**

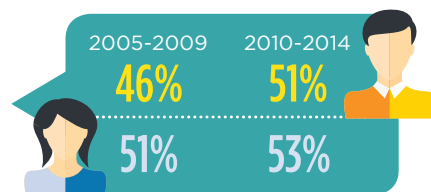
COLORECTAL CANCER

is a deadly concern — despite being highly preventable, it is the top diagnosed cancer in Singapore and the cause of 3,726 deaths from 2010 to 2014. Also known as bowel cancer, colorectal cancer develops in the large intestine (comprising the colon and rectum). It is also called colon or rectal cancer, depending on where the cancer originated.

In the cancer's early stages, cancerous cells are confined to the intestine and not many tell-tale signs might be observed. However, when left untreated, the malignant cells will invade neighbouring organs, enter adjacent lymph nodes and eventually spread across the body. This is when the cancer enters its late stages. Common symptoms then are a persistent change in bowel habits such as diarrhoea or constipation, a feeling of abdominal discomfort, and the passing of blood alongside stools.

According to the latest *Interim Annual Report* from Singapore Cancer Registry (2010 – 2014), colorectal cancer is the most common type of cancer for men, and the second most common (after breast cancer) for women. Among the different races in

5-YEAR SURVIVAL RATES FOR COLORECTAL CANCER IN SINGAPORE



Singapore, the Chinese are at the highest risk. Most patients are aged above 50, when the incidence rate starts to climb. However, findings presented during Digestive Disease Week 2016 in California warned that colon cancer among the under-50s is on the rise, and these younger patients are often diagnosed at the advanced stages.

In addition to age, other risk factors include family history and a personal history of previous colorectal polyps, colorectal cancer or inflammatory bowel disease. While the exact cause of colorectal cancer is unknown, there are established preventive measures. Steps to take include exercising regularly, moderating alcohol consumption, quitting smoking, and adopting a balanced diet that features less saturated fat and more fruits and vegetables.

Ignorance Is Not Bliss

Apart from mitigating risk factors, regular screenings play a critical role. Research emphasises that the chances of recovery and survival are much higher if colorectal cancer is detected in its early stage. The key is to discover and remove polyps (growths) in the intestine before they turn cancerous. The window for such detection is large as it usually takes more than a decade for polyps to turn into tumours. Therefore, annual screenings, especially for those above 50 years old, are recommended.

The first line of screening is the Faecal Immunochemical Test (FIT), which detects blood in stools, that is invisible to the naked eye. FIT is a self-administered procedure and is most suitable for a mass population screening. Patients with

A STOPPABLE KILLER

REGULAR SCREENING AND A HEALTHY LIFESTYLE ARE YOUR BEST DEFENCE AGAINST COLORECTAL CANCER.

BY **PHYLLIS HONG** IN CONSULTATION WITH NATIONAL HEALTHCARE GROUP DIAGNOSTICS

This Screening Kit Could Save Your Life

The Singapore Cancer Society distributes free Faecal Immunochemical Test (FIT) kits to Singaporeans and Permanent Residents aged 50 and above at various locations. Over 50,000 have received screening in 2016. Visit www.singaporecancersociety.org.sg or call 6499 9133 for the list of collection points.



Processing specimens in the Faecal Occult Blood Test

a positive FIT result will then be referred to a specialist doctor to investigate the cause of blood in the stool.

Possible follow ups include a repeat FIT, colonoscopy screening (inserting a flexible tube through the anus to examine the large intestine) and flexible sigmoidoscopy (similar to colonoscopy screening except only the rectum and lower part of colon are examined).

Those who feel repugnance for poop — even if it is their own — will be relieved to know that stool sample testing is quick, non-invasive and fuss-free. The FIT kit includes a sampling probe which collects a pinch and not lumps of stool specimen, unlike previously (see box). National Healthcare Group Diagnostics partners Singapore Cancer Society (SCS) in the FIT Kits supply and testing as part of SCS's National Colorectal Cancer Screening programme. With automated testing capabilities, the laboratory is able to process tests in larger volumes with a quicker turnaround time.

Not The End

Medical advances have further increased survival rates over the years. Comparing statistics between 2005–2009 and 2010–2014, the five-year survival rate in Singapore has gone up from 46 per cent to 51 per cent for men, and from 51 per cent to 53 per cent for women.

Doctors tailor treatment plans after assessing the location, size, stage and grade of the cancer. But surgery is typically the standard option if the cancer is still confined

within the colon. During surgery, the affected part of the intestine is removed and the remaining ends are joined. In cases where the ends cannot be joined, a colostomy is done to divert one end of the colon through an opening in the abdominal wall. A pouch is then attached to collect stools.

Besides surgery, doctors may also recommend two other main treatment options. Radiation therapy uses high-energy rays to kill the cancer cells. It is also used to control the tumour size before surgery or destroy remaining cancer cells post-surgery. In chemotherapy, drugs are used to stop cancer cells from growing and reproducing. It is more frequently used after surgery and can be administered either via injections

or orally (tablets).

Reactions to treatment and the intensity of side effects felt vary from person to person. After surgery, fatigue and bruising around the site of surgery can be expected. Common side effects for radiation therapy and chemotherapy include nausea, loss of appetite, flaky skin and hair loss. However, almost all side effects are short-term and should be weighed against the benefits of the treatment. Medicines that help to reduce the intensity of the side effects are also available. **LW**

PEEK-A-POOP

Don't be too quick to flush! Your poop can show the state of your health.



Type 1
Separate hard lumps, like nuts (hard to pass)



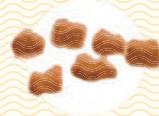
Type 2
Sausage-shaped, but lumpy



Type 3
Sausage-shaped, but with cracks on surface



Type 4
Sausage- or snake-like, smooth and soft



Type 5
Soft blobs with clear-cut edges (easy to pass)



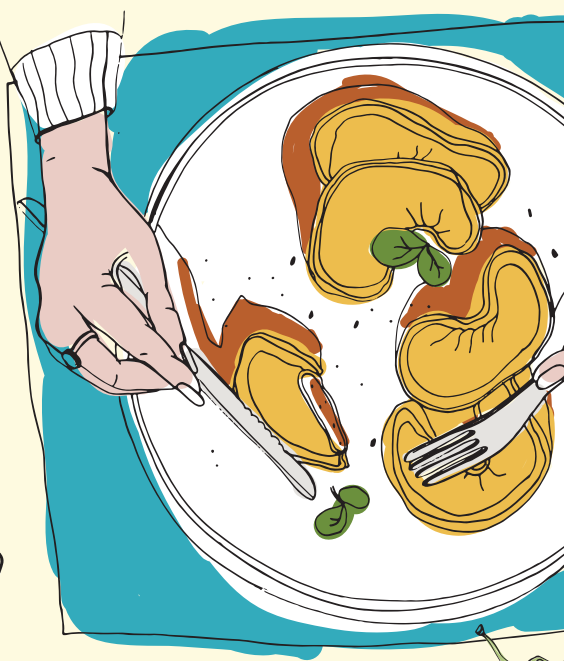
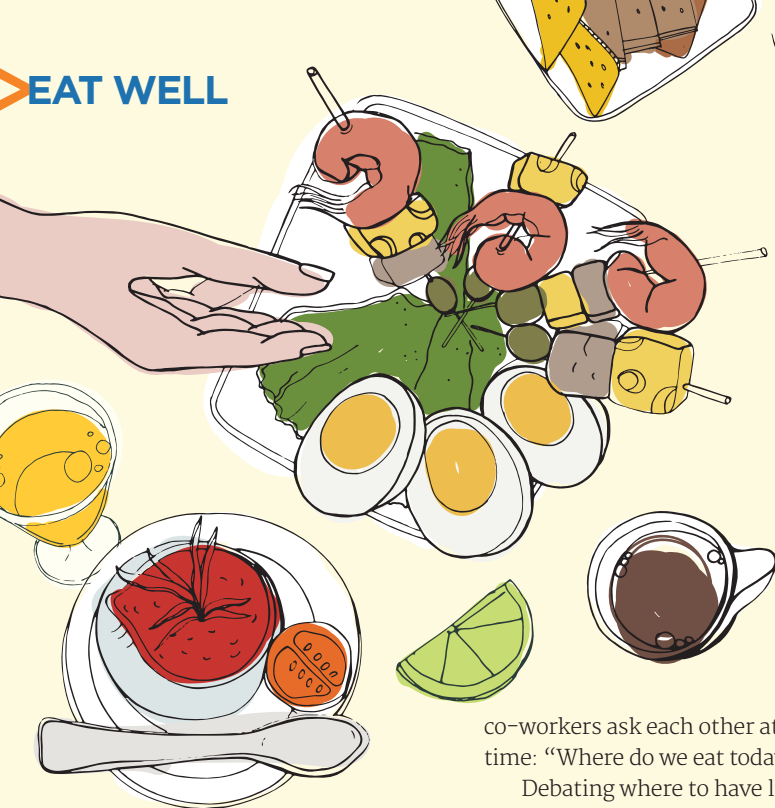
Type 6
Fluffy pieces with ragged edges, mushy



Type 7
Watery, no solid pieces (entirely liquid)

- ▶▶ **Type 1 and 2:** These could be a sign of constipation.
- ▶▶ **Type 3, 4 and 5:** These are considered normal, with Type 4 matching the ideal stool profile.
- ▶▶ **Type 6 and 7:** These indicate diarrhoea caused by viral infection or bacteria.

Reference: Bristol Stool Chart



FROM THE UBIQUITOUS *lo-hei* sessions during

Chinese New Year to the traditional *buka puasa* (breaking fast) feasts during the Muslim month of Ramadan (and every potluck party in between), communal eating is very much part of Asian culture. To celebrate or even to commiserate, family and friends often gather around food and eat together, whether it is at home, a restaurant or a barbecue pit. And it isn't just about special events. Every day,

co-workers ask each other at lunch time: "Where do we eat today?:"

Debating where to have lunch with office mates might not be the most efficient way to spend part of a lunch hour but the end result is worth it. Eating together has plenty of benefits compared with eating alone. The chief benefit is the social interaction, which psychologists say is important for mental health. It isn't just good for your mental health, it is good for bonding as well.

When you eat in a group, you also get to order multiple dishes and can then have a varied diet.

However, while eating communally has benefits, this is

only if it is done mindfully. The one communal meal you should approach cautiously is the big feasts during occasions such as Christmas, Chinese New Year, Hari Raya and Deepavali. In multi-racial Singapore, you are bound to be a guest at one of these, whether you celebrate the festival or not. At such times, hosts tend to put on a big spread. Plenty of people pack on the weight during festive seasons because (generous hosts aside), they get carried away by the good cheer and are not aware of what and how much they are eating.

Ms Lynette Goh, Senior Dietitian, Clinical Services at NHG Polyclinics suggests that you start the day with a healthy and balanced breakfast that includes whole-grain foods, low-fat protein and fruit. "Avoid going for visits on an empty stomach to prevent overeating or over-indulging on festive treats," she says.

Eat until you are no longer hungry, not until you feel full. It takes a while for your body to register that your stomach is filled to capacity so if you eat until you feel really full, you would have over-eaten.

Another secret is to be canny about what you eat. Choose foods that are high in fibre because these will keep you fuller for longer. Also, before you start on the main course,

"DIG IN, EVERYONE!"

COMMUNAL EATING IS GOOD FOR THE SOUL, BUT CAN BE HARMFUL TO HEALTH. HERE'S HOW YOU CAN MITIGATE SOME OF THE RISKS.

BY JIMMY YAP IN CONSULTATION WITH MS LYNETTE GOH SENIOR DIETITIAN // CLINICAL SERVICES // NHG POLYCLINICS





AVOID GOING FOR VISITS ON AN EMPTY STOMACH TO PREVENT **OVEREATING OR OVER-INDULGING ON FESTIVE TREATS.**

MS LYNETTE GOH, SENIOR DIETITIAN, CLINICAL SERVICES, NHG POLYCLINICS



‘cheat’ by eating lots of low-energy dense foods such as salads or vegetable soups. These will fill you up before you hit the roast turkey or the *beef rendang*.

One easy trick to limit your calorie intake is to follow a simple rule: Don’t drink your calories. Drinking 330 ml of water fills you up as much as a 330 ml can of a soft drink — minus the calories. Maybe for an informal gathering such as a barbeque, you could do as Ms Goh suggests: “Consider bringing your own water bottle filled with water and slices of lemon and cucumber,” she says. “It is a refreshing

alternative to plain water and can quench your thirst.”

Often, when you are visiting, the host constantly ladles food onto your plate, insisting that you eat more. If you feel you can’t say ‘no’, try saying ‘later’ instead. This way, you don’t seem impolite and hopefully, your host won’t remember to press you to eat more. Finally, eat slowly and focus on the socialising rather than the eating. Eating slowly allows your body time to register that you have had enough so you don’t overeat.

If you are the host, make things easier on your guests by offering

healthier options. Start by serving plenty of vegetables so that people fill up on these, says Ms Goh.



Offer high-fibre carbohydrates like brown rice, brown rice *bee hoon* and wholegrain bread. White rice is a hard habit to break but you can make the transition easier by mixing brown and white rice together, she further suggests.

Typically, seafood and meat make up the main course at dinner parties. Where possible, serve more fish, especially oily fish such as salmon and mackerel that are high in omega 3-fatty acids and are good for the heart. When you serve meat, offer lean meats rather than fatty cuts. Remove the skin from poultry before cooking, for example. Avoid deep-frying and instead stir-fry, steam, grill, and boil your food.

Communal eating is about celebrating life, and nothing celebrates life more than delicious food that promotes health. **LW**



SHARE THE FOOD, NOT THE GERMS



▶▶ Serving food communally and having everyone dig in with their own spoon or chopsticks is a good way to spread an infectious disease. All it takes is one person carrying a bug to pass it on. To minimise this risk, always ensure there are serving spoons for every dish.

That way, people aren’t likely to use the cutlery that they have brought to their mouths.

▶▶ If a communal sauce is offered, dip once in the sauce dish and eat the food right away. Do not dip the piece that you have tasted back for more sauce.

▶▶ If you tasted something and do not like it, do not place it back in the communal dish. Put it on your own plate or the plate set out for bones instead.

▶▶ Do your part to avoid spreading disease if you’re not well. Beg off from attending events if you have a bug that might spread. Or if you can’t avoid the event, go but wave off offers of food with an excuse. Make sure you eat beforehand though, so that hunger doesn’t tempt you to sample the spread.

▶▶ Wash your hands before any meal, and after you have used the toilet.



What's BUGGING you?

APART FROM UNBEARABLY ITCHY WELTS, BED BUGS CAN ALSO CAUSE EMOTIONAL DISTRESS.

BY PHYLLIS HONG IN CONSULTATION WITH
DR YEW YIK WENG CONSULTANT // NATIONAL SKIN CENTRE

A
BREEDING
HOTSPOT



Singapore's warm weather makes it conducive for bed bugs to breed and grow. A bed bug that has just hatched needs about 120 days to mature at 18°C, but takes only 21 days to mature at 30°C!

THE BEDTIME NURSERY RHYME “Good night, sleep tight, don’t let the bed bugs bite” is good advice indeed, as the insect can be a real nightmare. The bed bug or *Cimex lectularius* is a global pest. Its population dwindled in the 20th century because of the widespread use of pesticide but has been on the rise in developed countries since the late 1990s.

The reason for its surging population is unknown, but the United States Centers for Disease Control (CDC) and Prevention has pointed to the increase in international travel as a likely factor. Bed bugs can hitchhike undetected on bags or shoes, unlike lice or ticks that hide in hair or stick on skin.

The Bug Profile

Shaped like flat ovals, bed bugs are tiny. Adults are just five millimetres long — as big as an apple seed — but are fully capable

of almost doubling in size after a meal. They are most active at night when they feed by piercing the skin and drinking the blood of humans or animals, with each meal lasting between five and 10 minutes. Bed bugs are wingless and cannot fly or jump, although they can crawl over 30 metres in a single night. They are also able to survive for extended periods without food.

Their bites are extremely itchy and appear as clusters of red bumps over exposed areas, such as the neck, arms and legs. While the bites do not transmit diseases and rarely trigger allergic reactions, their saliva contains an anaesthetic and anti-clotting agent which causes intense itching. Severe scratching to relieve the itch can result in infection, scarring or hyperpigmentation, says Dr Yew Yik Weng, Consultant at the National Skin Centre.

The good news is that treatment for bed bug bites, if needed, is

straightforward. Patients rarely develop complications and for most cases, symptomatic treatment in the form of topical steroids or oral antihistamines can relieve the itch quickly. “Consulting a doctor may not be necessary unless symptoms worsen or persist after more than five days. Bed bug bites usually recover within a week,” says Dr Yew. Because many patients do not seek formal medical treatment, the exact number of bed bug cases in Singapore is unclear.

But, while the itchiness may eventually subside, bed bug bites can extract a huge emotional toll. People living with bed bugs can feel uncomfortable, embarrassed



Tell the Difference...

Bed bug bites are clustered while mosquito bites are random and isolated.

and sometimes, even too fearful to sleep. “Many people can get very anxious or stressed from bed bug bites. Sometimes, patients who were bitten previously also display an irrational fear or phobia,” says Dr Yew.

Breeding Spaces

While commonly associated with unhygienic surroundings, the truth is that bed bugs are not drawn to dirt and grime. In fact, bed bugs have been found in five-star hotels in New York. Instead, they are attracted to warmth, blood and the carbon dioxide we exhale.

Unlike their name, bed bugs can be found in many other types of furniture and household items such as cushions or curtains. They can also be found in cinemas or concert halls. In December 2016 and January this year, there were reports of passengers being bitten in a bug-infested coach travelling from Kuala Lumpur to Singapore.

squashed bed bugs), faecal stains, as well as brown shells shed as the insects grow. A sweet musty odour — similar to the smell of coriander — is also commonly reported.

Bed bugs are incredibly equipped for survival, making them one of the hardest pests to kill. They are hard to see and can hide in nooks and crannies. They can live up to a year without feeding, so starving them is not an option. The effectiveness of insecticides has also been mixed; a study published in the *Journal of Medical Entomology* in 2016 found that bed bugs from Michigan and Cincinnati in the United States have developed resistance to neonicotinoids, the most widely-used insecticide in the world. The findings complement previous research that highlighted the insect’s ability to develop a resistance to poisons. The species has evolved a thicker skin that

stops poisons from penetrating, and a nervous system that is immune to toxins.

Heat treatment remains a common but limited solution. Bed bugs die at temperatures above 50°C. While clothes can be washed at high heat, infested mattresses and furniture must be replaced. Vacuuming is not a sure-fire way of getting rid of the eggs. Therefore, if there are signs of infestation, it is advisable to contact a licensed pest-control company to assess the severity of the problem and provide fumigation services.

Prevention is definitely better than cure. For one, keeping the living environment clutter-free will reduce the number of potential hiding places. Also, don’t bring home furniture, especially upholstered items that have been discarded at a disposal area or other public spaces. If you must, inspect and clean them thoroughly before bringing the items into your home. **LW**

MANY PEOPLE CAN GET VERY ANXIOUS OR STRESSED FROM BED BUG BITES.

SOMETIMES, PATIENTS WHO WERE BITTEN PREVIOUSLY ALSO DISPLAY AN IRRATIONAL FEAR OR PHOBIA.

DR YEW YIK WENG, CONSULTANT, NATIONAL SKIN CENTRE



Spotting An Infestation

Spotting live bed bugs is another tell-tale sign of infestation.

Researchers from the University of Sheffield in England showed that finding just one bug is cause for alarm. Their study showed that a single pregnant bed bug can rapidly produce generations of offspring, leading to an infestation in weeks. An adult female bed bug lays about 200 to 500 eggs in her lifetime.

Other tell-tale signs of an infestation are reddish brown streaks on mattresses (from

BUG OFF!

Bed bug bites make the worst souvenir. Keep these tips in mind:



- **INSPECT THE FURNITURE,** particularly the crevices of the mattress and sofa in your hotel room for bed bugs or shed skin shells and faecal stains before unpacking your luggage.
- **RUN A HAIRDRYER** across the mattress and pillows; the heat will send any bed bugs scurrying.
- **STOW LUGGAGE AWAY** from the bed. Keep them on the luggage rack or on the desk in the room instead.
- **CHECK ONLINE REVIEWS** of your accommodation options and look out for complaints of bed bugs.
- **PACK CLOTHING IN A ZIP-LOCK BAG** when travelling and wash them at high heat setting as soon as you reach home.



GROUP on!

**NEED MOTIVATION TO EXERCISE MORE?
WORK OUT TOGETHER LIKE
THE NHG DIAGNOSTICS TEAM.**

BY DENNIS YIN



GROUP TRAINING HAS been hailed as the next big thing in exercise, not only by fitness trainers but also medical experts, with the American College of Sports Medicine listing it as one of 2017's top fitness trends.

While group workouts are not new, studies show exercisers tend to push themselves harder in a competitive atmosphere. This is because when members focus on the most active participants as targets to beat, it forms a "social ratchet where everyone increased everyone else's activity levels", according to researchers from the University of Pennsylvania in a recent study.

All Together Now

Even when not working out in a competitive environment, exercising alongside others can offer various advantages.

"The introduction of group workplace health activities not only motivates us to adopt a healthy lifestyle, it also creates bonding opportunities for colleagues to interact with one another," says Ms Tsu May Ling, a finance executive with National Healthcare Group (NHG) Diagnostics.

NHG Diagnostics has a S.H.a.P.E (Stay Healthy and Power-up Everyday) committee that organises workplace health activities in NHG Diagnostics centres at least once a month. The group workouts began when



NHG Diagnostics staff participating in a Muay Thai activity.

**THE INTRODUCTION OF GROUP
WORKPLACE HEALTH ACTIVITIES
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MS TSU MAY LING, FINANCE EXECUTIVE, NATIONAL HEALTHCARE GROUP DIAGNOSTICS.

some of the staff started individual exercise groups. With the support of management, time was allocated each month to promote workplace health in NHG Diagnostics HQ.

Common reasons for quitting a fitness programme when exercising alone include lack of drive and boredom. Regular workouts in the same group provide peer motivation, as members can encourage each



Workplace health activities are a good platform for staff to come together and have fun. NHG Diagnostics staff doing a mass workout during its annual ACTIVE Day.

other and achieve fitness goals together.

Furthermore, certain fitness activities such as biking and trekking are safer when done in a group, as members look out for one another and offer assistance when needed.

“It takes double the discipline to persevere when working out alone to achieve a fitness goal,” says Mr Lawrence Lin, co-organiser and planner of Braddell Heights Runners, a 400-member-strong community running group.

Regular workouts in the same group provide peer motivation, as members encourage one another to accomplish their objectives. “You can pair up with buddies and track performance. It also gets you into the momentum to exercise for the long run,” adds Mr Lin.

Camaraderie is likely to form over time, as in the case of the NHG Diagnostics staff. Besides workplace health activities, some have set up group chats to initiate team-bonding activities outside of work, including laser tag, hiking and escape games.

Diversity In Action

There are many choices when it comes to working out in groups. Traditional formats include aerobics, dance and Pilates. More recently, fitness groups and trainers have brought workouts outdoors — an open environment makes working out feel less routine.



Each department at NHG Diagnostics HQ takes turns to organise monthly workplace health activities.

Such activities include boot camps at the Singapore Botanic Gardens, yoga at the Padang and even stroller walking at the Sports Hub.

Some of the many activities organised by the NHG Diagnostics S.H.a.P.E committee include golf workshops, treetop walks, *Muay Thai* classes, healthy cooking lessons, KpopX Fitness (dance workouts performed to K-pop songs), as well as health talks.

Over at the HQ, which also arranges monthly workplace fitness sessions for its staff at Nexus@ one-north, activities range from yoga and badminton to brisk walks and resistance band workouts. Other health-related programmes include the NHG Diagnostics ACTIVE Day, annual staff health screening and lifestyle survey.

In addition, the staff are also encouraged to take part in national fitness programmes such as the ongoing National Steps Challenge, where participants clock around a few thousands steps per day.

So if you are still having trouble working up a sweat alone, maybe it’s time to consider joining a group. **LW**

PHOTOS: SHUTTERSTOCK

GROUP HITS

NEWER GROUP WORKOUTS THAT ARE GAINING POPULARITY IN SINGAPORE INCLUDE:



BARRE

Ballet-inspired fitness movement with elements of yoga and Pilates.

CROSSFIT

A fitness regimen that involves constantly varied functional movements performed at relatively high intensity.

PILOXING

A combination of standing Pilates, boxing and dance moves such as hip-hop, salsa and ballet.

POUND

A full-body workout that combines cardio and Pilates with simulated drumming moves. Participants hold a pair of lightly weighted drumsticks when exercising.

BOOGIE BOUNCE XTREME

Involves bouncing on a mini trampoline to the beat of pop music.

FITNESS BOOTCAMP

A group workout that features different military-styles exercises such as pull-ups, push-ups, lunges and sprints executed in intervals over a fixed period of time.



ZUU

A fitness workout that mimics animal movements, including crawling on all fours like a bear or hopping like a kangaroo. The moves are executed in short bursts interspersed with brief rest periods.



Shoo, FLU!

DEPENDING ON THE FINDINGS
OF A CURRENT STUDY,
THE FREQUENCY OF TROPICAL
INFLUENZA RE-VACCINATION
IN THE ELDERLY MAY
SOON CHANGE.

BY **WANDA TAN**
IN CONSULTATION WITH
DR BARNABY YOUNG
CONSULTANT // INSTITUTE OF INFECTIOUS
DISEASES AND EPIDEMIOLOGY //
TAN TOCK SENG HOSPITAL



THE YEAR-END flu season from December to February has just passed, and we are now bracing ourselves for the mid-year one from May to July. This biannual pattern distinguishes influenza in tropical countries such as Singapore from the disease in temperate climates, where infections peak in winter. Another unique feature of tropical influenza is that the virus spreads all year round.

Because the immune system weakens with age, seniors are particularly susceptible to flu infections and potentially life-threatening complications like pneumonia. Moreover, “influenza vaccination is known to be less effective in the elderly compared to the younger population,” says Dr Barnaby Young, Consultant at

Tan Tock Seng Hospital (TTSH)’s Institute of Infectious Diseases and Epidemiology.

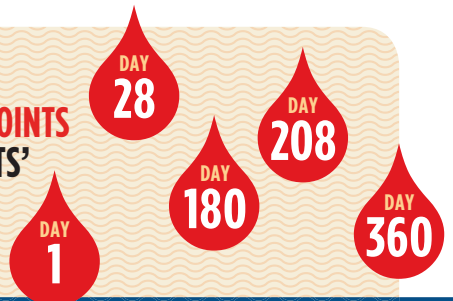
The Ministry of Health and Health Promotion Board recommend that people, especially those in high-risk groups, get annual flu jabs. But research on how to properly vaccinate against influenza in the tropics has been scant — until now. In an ongoing study, Dr Young is working to boost seroprotection — protection obtained by vaccination — against tropical influenza in the elderly.

Year-Long Trial

Dr Young’s study was inspired by the conversations he had with staff of TTSH’s Communicable Disease Centre more than two years ago. “While talking with them about flu vaccine responses, the idea arose that the vaccine is unlikely to provide year-round seroprotection for the elderly living in tropical regions,” he tells *Lifewise*.

Following a systematic literature review on the topic, Dr Young developed a research

**BLOOD TESTS WILL BE
DRAWN AT FIVE TIME POINTS
TO GAUGE PARTICIPANTS’
ABILITY TO FIGHT THE
FLU VIRUS**



INFLUENZA VACCINATION IS KNOWN TO BE LESS EFFECTIVE IN THE ELDERLY COMPARED TO THE YOUNGER POPULATION.



DR BARNABY YOUNG, CONSULTANT AT TAN TOCK SENG HOSPITAL (TISH) AND INSTITUTE OF INFECTIOUS DISEASES AND EPIDEMIOLOGY.



immunity, which measures the presence of memory cells in the immune system so as to produce antibodies in the event of future infection.

HI assays were performed by the

proposal as part of his PhD programme at the Lee Kong Chian School of Medicine, Nanyang Technological University. He secured a National Healthcare Group grant to fund his project. He then recruited volunteers aged 65 years and above from senior activity centres island-wide to take part in a 360-day trial, which commenced in mid-2016.

Under the trial, 200 participants were randomly assigned to two equally-large groups. One group received a licenced, standard-dose trivalent influenza vaccine — which protects against three different strains of the virus — on Day 1 and Day 180 of the trial, with each shot administered ahead of the respective flu season. The other (control) group received the same vaccine on Day 1; but instead of a booster injection, a tetanus-diphtheria-pertussis combination vaccine was given at the halfway mark. Dr Young opted for a combination vaccine rather than a placebo, as the former would benefit participants while still enabling comparison between the two groups.

Blood tests were drawn at five time points — Days 1, 28, 180, 208 and 360 — to gauge participants' ability to fight the flu virus. Two indicators are key: haemagglutination inhibition (HI) titre, or the concentration of antibodies in the blood; and assessment of cell-mediated

World Health Organization Collaborating Centre for Reference and Research on Influenza in Melbourne, Australia. Blood samples were also sent to the A*STAR Institute of Molecular and Cell Biology to analyse immunological memory responses.

The Next Step

“The trial will finish in October 2017, by which time participants

receiving the six-monthly flu vaccine are expected to display better immunity to the virus than those receiving the yearly vaccine,” says Dr Young. He then plans to test the efficacy of this biannual vaccine against two other, less-commonly-used influenza vaccines: a high-dose version and one containing an adjuvant (a substance which increases the body's immune response to the vaccine). The version with the best results will subsequently undergo a large clinical trial to see whether it reduces infection rates in older adults.

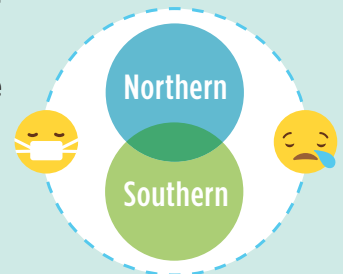
Ultimately, he aims to prevent influenza in the elderly. “The study will hopefully change vaccination practices throughout the tropics — including Southeast Asia as well as parts of South America and Africa — and increase flu vaccine uptake, which in Singapore is still low at about 10 per cent of the population.” **LW**

For issues of *Catalyst*, visit www.research.nhg.com.sg.

Flu In The Tropics

Why are there two flu seasons each year?

Tropical countries are located near or at the equator. Inhabitants are thus vulnerable to seasonal flu from both the Northern and Southern hemispheres, where winter typically lasts from December to February and June to August, respectively.



Why does year-round flu transmission occur?

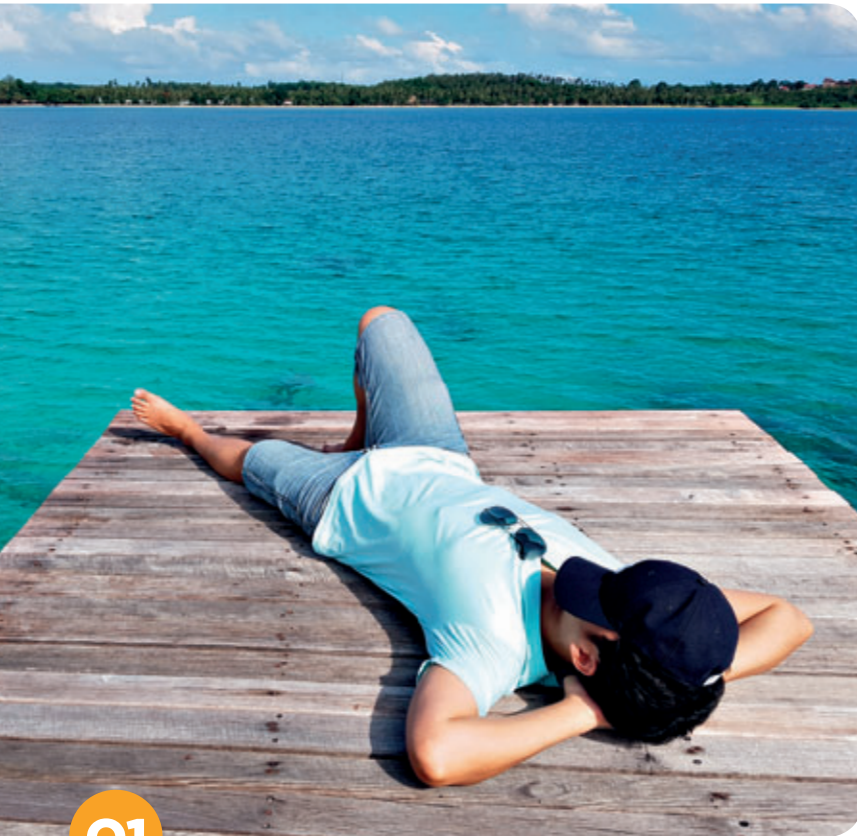
The reason for this is unclear, but one theory is that the virus thrives in temperature and humidity conditions at either extreme. As Dr Young explains: “Influenza infection occurs most readily when the virus becomes suspended in air by coughing or sneezing. The virus is fragile, however, and weather conditions have a large impact on how long it remains stable.”

Viral stability seems to be longest during the cold winter months of temperate climates, when air temperature and absolute humidity are low, and in tropical climates where the temperature and absolute humidity are consistently high. “In between these extremes, the virus is less stable — so in temperate climates the virus dies out in the spring when new infections occur much less readily,” he says.

Q&A

ASK
THE
EXPERTS

* YOUR MEDICAL QUESTIONS ANSWERED



Q1

Sleep And Sleep, But Still So Tired...

I go to bed at 11pm and wake up by 6.30am. On weekends, I sleep till about noon. But I end up feeling even sleepier throughout the rest of the day. How can I establish a better sleeping pattern? Also, do afternoon naps for an hour or so help, or do these disturb sleep later on at night?

An inconsistent sleep schedule can affect your mood, concentration and the sense of well-being. Our body loves rhythm and predictability. During sleep, our body goes through a sleep cycle which consists of four stages i.e Stages 1 to 3 followed by the Rapid Eye Movement (REM) stage. Each stage plays a definite role in contributing to the sense of well-being and sensation of restfulness that we feel after a good night's sleep. Sleep has a critical role in replenishing our depleted neuronal activities.

Irregular sleeping hours as well as irregular sleeping and waking times wreak havoc on the sleep pattern and disrupt the restorative process of sleep. Sleepiness usually occurs because we do not stick to regular bedtimes. Equally important is the lack of quality sleep hours. Sleep deprivation is one of the most common causes of daytime sleepiness in Singapore.

Taking excessively long afternoon naps can diminish the ability to fall asleep at night as our "sleep debt" is removed by the naps. This will lead to eventual sleep disruption.

Breaking sleep patterns and the lack of sleep can leave us feeling more fatigued than ever. An irregular sleep routine can also result in mood changes and decreased cognitive ability, and leave us feeling disorientated and irritable, rather than rejuvenated.

If you can't resist the urge to stay up late on Friday night, try going to bed a bit earlier on Saturday to ease your body clock back into routine. If all else fails, and you've not had a chance to get back to normal before Sunday night, go to bed earlier than usual to help prepare your brain for the waking-time change. Try to sleep and wake up at the same time every day as having a regular sleep pattern sets your body clock for the rest of the day. Avoid taking afternoon naps if you can, but if you really need to, keep them to a brief 20 minutes. Long afternoon naps are unlikely to leave you feeling more refreshed. Try to avoid caffeine and alcohol use too, as these can also have disruptive effects on sleep.

DR CHONG YAW KHIAN
SENIOR CONSULTANT // SLEEP DISORDER
CLINIC // TAN TOCK SENG HOSPITAL



Q2

He Keeps Losing It

My partner and I have been together for over eight years. At times, he goes into a fit of anger during which he becomes verbally abusive, and picks on me over the most trivial matter. After that, he behaves like nothing had happened. (Or at least he doesn't talk about it.) It is mentally exhausting for me to go through these repeated episodes. How can I help him to control his anger? Could he be bipolar or suffering from other forms of mental disorder?

On days when your partner is agitated, take a step back and let him cool down. Let him know that you notice he is upset, and ask if he needs some personal space and time.

When he feels calmer, gently broach the subject with him and find out if there are any triggers that may be prompting his turbulent reactions. Should these triggers be things you can help him with, ask if you can be involved in helping him to manage or resolve those issues. This is to make him feel supported and know that he is not facing the issues alone.

At the same time, do not respond to your partner with angry words as this will likely stir up more anger in him. If these methods are not effective, seek psychological therapy to help him manage his emotions. If you still have concerns about whether he may be suffering from any mental-health condition, accompany him to see a mental-health professional.

MS ELAINE SUM
CLINICAL PSYCHOLOGIST //
INSTITUTE OF MENTAL HEALTH

Q3

Ordering Up A Headache

Everytime I eat at a *zi char* stall or restaurant, I end up with a bad headache about half an hour later. It doesn't matter which stall patronise, I feel lousy after the meal. Is the MSG used likely to be the culprit? If so, why do I only suffer the effects when I eat *zi char*?

Food additives and flavour enhancers are commonly added during food preparation by food stalls and restaurants to make dishes taste better, and these are known to trigger headaches. Limit the number of dishes when ordering at a *zi char* stall, or keep to those that are less flavourful so as to minimise or avoid recurrences of your condition.

Check with the server which dishes contain MSG (monosodium glutamate) so that you are able to avoid them. If possible, make a request that MSG be omitted in the dishes that you order.

The subsequent absence of headaches will help confirm your suspicion of MSG as the culprit, but this may not be an effective method as MSG is unlikely to be the only food additive or flavour enhancer to be found in a *zi char* meal. Moreover, many condiments such as oyster sauce and dark soya sauce also contain MSG.

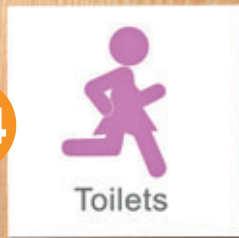
On the brighter side, you may have found a link between *zi char* dishes and your headaches and this allows you to take precautionary measures. More often than not, patients with your condition and other benign headaches are not able to identify the triggers or may have difficulties avoiding their exposure due to lifestyle and work commitments.

If you observe new patterns of headache unrelated to food intake, consult your family physician for further evaluation. Such findings can be a manifestation of other medical conditions which may necessitate different forms of intervention.

DR TAN WEE HIAN
FAMILY PHYSICIAN-ASSOCIATE // DEPUTY HEAD //
PIONEER POLYCLINIC // NATIONAL HEALTHCARE GROUP POLYCLINICS



Q4



Bothersome Bladder

My aunt is 70 years old, and over the past year, needs to go to the toilet almost every other hour. At night, she wakes up at least three times to visit the toilet. We have tried to get her to see a doctor again (she says she has, and that the doctor said it is just a case of a “weak bladder”). If that is really the case, what does having a weak bladder mean? We are worried there could there be something more to her condition. She appears to be relatively healthy.

Your elderly aunt may have an overactive bladder. Patients with this condition experience frequent urination and often complain of the need to rush to the toilet for fear of urinary leakage. Some may even wet themselves before reaching the toilet. These symptoms, which usually increase with age, can be very distressing and affect a person’s quality of life.

Treatment of an overactive bladder is a step-by-step approach. It begins by cutting down on caffeine, alcohol and citrus drinks, as these can trigger the symptoms.

Next, sufferers need to learn pelvic floor muscle exercises and bladder training (progressively increasing the time between urination) to help their bladder to hold more urine. They should be taught and supervised by a healthcare professional.

Medications are also available if the above measures do not bring about adequate relief. However, due to potential side effects, patients, especially the elderly, need to be counselled and monitored while on medication.

Botox (botulinum toxin) injections to help bladder muscles contract, and peripheral nerve stimulation (application of electrical pulses to regulate bladder function) are alternative treatments if medication fails.

The need to wake up at night to urinate (known as nocturia) occurs as one of the symptoms of an overactive bladder. But there are many other possible causes — some not even related to the urinary tract. These include diabetes mellitus, heart failure or obstructive sleep apnoea (a serious sleep disorder that causes breathing to repeatedly stop and start during sleep). An enlarged prostate gland may also exhibit such urinary symptoms in men. A doctor should be consulted to check for any urinary tract infection, or for signs of other disorders such as abnormal blood in the urine.

DR SHARON YEO
CONSULTANT // DEPARTMENT OF UROLOGY //
TAN TOCK SENG HOSPITAL

Q5

Me And My Migraine Shadow

I read online that some common health issues have a ‘shadow’ illness. I suffer from the occasional migraine attack and am worried that I could be at risk of a stroke or a heart attack. I am a 50-year-old woman who is generally healthy. I have not sought treatment for my migraine. Should I do so now?

Migraines, particularly classic migraines with aura (i.e. symptoms before a headache such as flashing lights, bright spots, change in vision, numbness or tingling), may be associated with a small increase in stroke risk. Smoking and estrogen-progestin contraceptive use appear to increase the risk in women below 45 years of age.

Aura which are prolonged for more than 60 minutes or atypical (e.g. motor weakness) may be difficult to distinguish from a transient ischemic attack which is often known as ‘mini stroke’ or ‘warning stroke’ with stroke-like symptoms. For people aged 50 years old and above, the risk of stroke contributed by hypertension, diabetes, hyperlipidemia, obesity, smoking and age combined, makes the risk contributed by migraine insignificant.

You are encouraged to visit your family physician to assess the nature of your migraine, and to evaluate any of the above cardiovascular risk factors, so that your concerns can be adequately addressed.

DR VICTORIA LEUNG
FAMILY PHYSICIAN // ANG MO KIO POLYCLINIC //
NATIONAL HEALTHCARE GROUP POLYCLINICS





Q6

Stress Over Tresses

I used to have naturally curly hair when I was younger. It started to straighten out in adulthood and now it has become rather fine and thin. I am only in my thirties. Am I suffering from a hair condition?

You may have a condition called androgenetic alopecia. It usually presents with gradual hair thinning and affects different populations at different rates, probably because of genetics. Most of us will notice hair thinning after the age of 40 but some may present earlier, especially if there is a family history of hair loss, stress or other medical illnesses.

It is best for you to consult a dermatologist for appropriate assessment of your hair. With the right diagnosis, he or she will be able to help with the management of your hair condition.

DR CHUAH SAI YEE
CONSULTANT // NATIONAL SKIN CENTRE

Q7

Whiter Than White

Does whitening toothpaste work better than regular toothpastes? My teeth are slightly stained although I am a non-smoker. I drink a lot of tea. What can I do to brighten my teeth permanently?

Stains on teeth are commonly caused intrinsically (e.g due to blood breakdown products within the tooth), or extrinsically (e.g due to consumption of tea or coffee). Whitening toothpastes work by either mechanical action or chemical action on stained plaque on teeth. Such toothpastes contain abrasive substances such as silica or carbonates. Some may also contain chemical agents such as enzymes which act on the proteins within plaque that cause staining. Some whitening toothpastes also contain a low concentration of peroxide compounds which break down the stains and infiltrate the tooth surface and — very minimally — remove intrinsic stains.

The American Dental Association (ADA) website shows a list of whitening toothpastes that fulfills ADA guidelines; in some lab-based and clinical studies, these were shown to be able to remove extrinsic surface stains and prevent stains from developing. However the whitening effect from toothpastes alone may not be clinically significant. Besides, toothpaste abrasiveness needs to be monitored to prevent too much wear on the teeth. Extrinsic stains from drinking tea can be removed by:

- > Professional cleaning (scaling and polishing) to remove surface stains and tartar
- > Dentist-prescribed home whitening products
- > In-office bleaching
- > Bleaching products available at stores



Very severe stains may be removed by tooth-coloured (composite) fillings, crowns and veneers. Dentist-prescribed home-whitening involves applying a low concentration hydrogen peroxide gel (10 – 35 per cent) onto a customised laboratory fabricated night guard worn overnight for two weeks. In-office bleaching makes use of a high-concentration hydrogen peroxide gel (25 – 35 per cent) in the dental clinic for a short period of time and the shade of the teeth often improves in the same visit, but sometimes repeated visits are needed for best results.

Bleaching products typically sold in stores or online are self-applied and include bleaching strips, paint-on products or gum shields. These contain the lowest concentration of hydrogen peroxide (3 – 6 per cent).

There could be side effects if you are using dentist-prescribed home-whitening products, having your teeth bleached at the dental clinic and using self-applied bleaching products. There is still possibility of relapse. Hence, good oral hygiene is the best option to prevent further staining.

DR VIVIAN WONG
DENTAL SURGEON // TOA PAYOH POLYCLINIC // NATIONAL HEALTHCARE GROUP POLYCLINICS

PHOTOS: GETTY IMAGES, ISTOCKPHOTO, SHUTTERSTOCK

ALL ABOUT

A PILL IS NOW AVAILABLE AT TAN TOCK SENG HOSPITAL (TTSH) THAT CAN REDUCE THE RISK OF INFECTION WITH HIV.

> Get prepped about **PREP**

FOR PEOPLE who are exposed to the human immunodeficiency virus (HIV), there is now a pill available to reduce the risk of them getting infected.

The method of prevention, a drug known as Pre-exposure Prophylaxis (PrEP), can be up to 96 per cent effective, as shown in clinical trials. It is a combination of two antiretrovirals (tenofovir and emtricitabine), which are used for treatment of HIV in HIV-infected people, and have been shown to be able to prevent HIV infection as well. PrEP can be taken either as a daily pill, or on-demand (when sexual activity is less regular and can be anticipated).

PrEP is recommended for people who have sexual partners who are HIV-positive, such as men who have unprotected sex with other men, or heterosexual men and women whose partners are HIV-positive.

“This is the first new (method)

of HIV prevention that we have had in many, many years,” Dr Wong Chen Seong, a consultant at TTSH’s Institute of Infectious Diseases and Epidemiology, told *TODAY* newspaper.

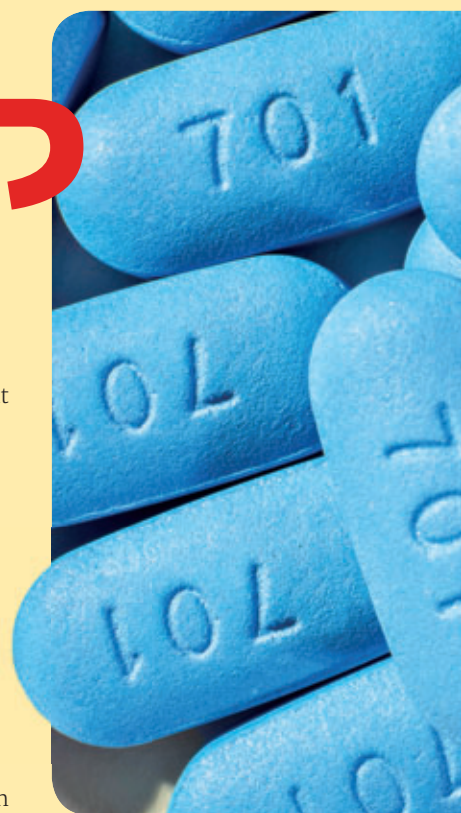
TTSH began offering PrEP in November 2016, at its Institute of Infectious Diseases and Epidemiology, and is part of the hospital’s holistic PrEP clinic services, which includes the assessment and counselling of patients as well as sexual health screening.

PrEP represents a new addition to existing HIV-prevention methods, and is used as part of an overall risk-reduction strategy. People taking PrEP need to visit doctors who are experienced in PrEP and sexual health to be monitored for side-effects, and to have regular HIV tests.

PrEP is meant as an effective addition to TTSH’s existing range of HIV-prevention strategies. It complements the use of condoms or other safer sex measures, and the

WHAT IS HIV PREP?

HIV infection causes AIDS if left untreated. PrEP stands for pre-exposure prophylaxis. The PrEP medication is given to a HIV-uninfected individual who is at high risk of being infected with HIV.



hospital hopes PrEP will help reduce the number of new HIV infections in Singapore.

TTSH, which sees one out of two people with HIV in Singapore, is one of the two public healthcare institutions here to offer the drug. It is also being offered by the National University Hospital. The DSC Clinic at Kelantan Lane is planning to offer it as well.

HOW EFFECTIVE IS PREP?

PrEP is very effective if patients take it regularly as prescribed — studies show that it can be up to 96 per cent effective then. However, this effectiveness is greatly reduced if the medication is not taken regularly as advised by the doctor.

HOW IS IT TAKEN?

The medication is taken once daily at a fixed time. To ensure adherence, the doctor will discuss with the patient when is the best time to start the medication. The medication takes time (days to weeks) to work. Patients are advised to practise safe sex (e.g. with condoms) at all times to most effectively protect from HIV infection and other sexually-transmitted infections.



WHAT ARE THE COMMON SIDE EFFECTS?

The drug is generally well tolerated. Some patients may experience rashes, nausea or abdominal upset although these are uncommon. PrEP may affect the kidneys — that is why the doctor will monitor a patient's kidney function during each visit. In most cases, the kidney function recovers when the drug is stopped. It can also reduce bone density over months to years of use. Similarly, the bone density generally improves when the medication is stopped.

WHAT ELSE SHOULD A PATIENT TAKE NOTE OF?

As explained above, PrEP is effective only if one takes the medication regularly. While PrEP may reduce the risk of being infected with HIV, it does not protect from other sexually transmitted infections (STI) such as syphilis, gonorrhoea or chlamydia. It is important to still practise safe sex. If one develops genital discharge or lesions, he/she is to see the doctor as soon as possible. [LW](#)

OF HIV AND AIDS + HIV and the Acquired Immunodeficiency Syndrome (AIDS) remains a global health problem. HIV infection occurs through contact with body fluids containing the HIV virus, such as blood, semen, vaginal fluids and breast milk. Sexual transmission and the sharing of needles with intravenous drug use remain the major drivers of the HIV pandemic worldwide. According to the Ministry of Health, HIV is more widely transmitted in Singapore through sexual transmission.

There is strong evidence to suggest that HIV is more easily transmitted by someone who is HIV-infected but in whom the infection is not virally suppressed through the use of highly active anti-retroviral therapy (HAART). This is the case when the infection is undiagnosed at the time.

PREP

For more information on Pre-exposure Prophylaxis, visit www.prepwatch.org.

THREE INTEGRATED CLUSTERS TO MEET FUTURE HEALTHCARE NEEDS

PRIMARY CARE SYSTEM INTEGRATED IN EACH NEW CLUSTER TO BRING PERSON-CENTRED CARE CLOSER TO THE COMMUNITY. CHANGES WILL BE IMPLEMENTED BY EARLY 2018.

Singapore's ageing population and increased chronic disease burden mean that our healthcare needs will continue to grow in volume and complexity. To ensure our future readiness in meeting these challenges, the Ministry of Health (MOH) announced the reorganisation of the public healthcare system into three integrated clusters, on 18 January 2017. The clusters are formed from the current six regional health systems — namely the Alexandra Health System, Eastern Health Alliance, Jurong Health Services, National Healthcare Group, National University Health System and Singapore Health Services.

“Over the last few years, MOH has significantly improved the accessibility, affordability and quality of healthcare in Singapore under our Healthcare 2020 Masterplan,” said Health Minister Gan Kim Yong. “Nevertheless, we cannot afford to stay still as there remain many challenges ahead such as our ageing population, increased chronic disease burden and the need to manage future growth in healthcare manpower and spending.”

The polyclinics will also be reorganised, in line with the three new clusters. The National University Polyclinics (NUP) group will be formed under NUHS, joining SingHealth Polyclinics and NHG Polyclinics as Singapore's third polyclinic group. Dr Lew Yii Jen (currently Senior Director, Clinical Services, NHG Polyclinics) will be the CEO of the new National University Polyclinics.

“Over the last few years, MOH has significantly improved the accessibility, affordability and quality of healthcare in Singapore under our Healthcare 2020 Masterplan. Nevertheless, we cannot afford to stay still as there remain many challenges ahead, such as our ageing population, increased chronic disease burden and the need to manage future growth in healthcare manpower and spending. This reorganisation of the public healthcare clusters will enable us to meet our future healthcare challenges. I am confident that we will be able to better optimise resources and capabilities, and provide more comprehensive and patient-centred care to meet Singaporeans' evolving needs.”

MR GAN KIM YONG, MINISTER FOR HEALTH

THE THREE NEW CLUSTERS:

CENTRAL REGION NATIONAL HEALTHCARE GROUP (NHG)

Formed by the NHG and Alexandra Health System, and headed by NHG Group CEO, Professor Philip Choo.

EASTERN REGION SINGAPORE HEALTH SERVICES (SHS)

Formed by the Singapore Health Services and Eastern Health Alliance, and headed by SingHealth Group CEO, Professor Ivy Ng.

WESTERN REGION NATIONAL UNIVERSITY HEALTH SYSTEM (NUHS)

Formed by the National University Health System (NUHS) and Jurong Health Services, headed by NUHS Group CEO Professor John Wong.

“I am confident that this reorganisation will provide more integrated care for patients, care providers and the community. There will also be more primary care networks and health promotion, wider career development opportunities for staff, cross-learning and dialogue across institutions and clusters, more knowledge sharing of new innovations, best practices, research and education. As with any reorganisation, change can understandably be uncomfortable and unsettling for some. That said, I strongly believe our patients will benefit, so will most of us, as we are served by a public healthcare system which cares enough to constantly revitalise itself to meet the healthcare needs



of our population, now and in the future. We welcome the AHS family into the National Healthcare Group.”

PROF PHILIP CHOO, GROUP CEO, NATIONAL HEALTHCARE GROUP (NHG)

National Specialty Centres and specialised hospitals like the Institute of Mental Health, KK Women’s and Children’s Hospital and National Skin Centre, will remain with their existing clusters.

Each new integrated cluster will have a fuller range of facilities, capabilities, services and networks across different care settings. They will be able to draw from the combined strengths and talents of their two original clusters to deliver more comprehensive and person-centred health promotion, disease prevention, curative and rehabilitative care for the population in their respective regions.

The reorganisation will also enable our public healthcare institutions to deploy their resources and capabilities more efficiently. They will be able to offer employees a wider and deeper range of professional development opportunities, and a broader platform for cross-learning that will benefit staff and our patients. This will in turn build a stronger healthcare workforce to serve Singaporeans. The needs in the healthcare sector are expanding, and all our public healthcare employees will continue to play important roles with the reorganisation.

MOH is working with clusters to ensure cross-cluster information flow and coordinated services. The changes will be fully implemented by 2018.

“This merger of SingHealth and EHA will be beneficial for patients. SingHealth will benefit from the strengths of CGH and EHA. They are pioneers in developing the regional health system (RHS) for residents in the East — building strong partnerships with nearby healthcare providers and the community. The merger will facilitate the sharing of best practices across all our institutions. CGH’s leadership in disciplines like Geriatrics, Sports Medicine, Emergency Medicine and others will complement SingHealth’s range of clinical services. Our Geylang and Queenstown Polyclinics have contributed much to how primary care has evolved in



SingHealth’s continuum of care. They are in good stead to bring value to their new clusters in transforming the primary care landscape. These changes in SingHealth and EHA augur well for our patients and Singaporeans.”

PROF IVY NG, GROUP CEO, SINGHEALTH

“NHGP has been a leader in the work of primary healthcare transformation. Over the past two years, we have implemented patient empanelment through our teamlet model of care, with a teamlet started in each of our clinics with very promising early results. In addition, we are also using Jurong Medical Centre to test the new clinical and payment model. We have also done well in engaging eligible patients on coronary risk screening, as well as worked with other primary care partners to right-site more than 20,000 chronic patients to Family Medicine Clinics (FMC) and General Practitioner (GP) clinics. In the most recent MOH Patient Satisfaction Survey, the National Healthcare Group Polyclinics (NHGP) also did impressively well with an overall score of 92%.

Our population is getting older and our chronic disease burden as a country is escalating. To cope with these challenges, we need to future-proof our healthcare system to better support our population. While I am personally excited about these changes, as I believe they will be for the benefit of our system, I am also sure I will miss working directly with many of our colleagues and staff who will now be reorganised under NUP. Nevertheless I am heartened to know that you and your respective clinics will continue to play an important foundational role to build a strong healthcare system in the West and to provide quality care to the population through the many initiatives that we have started together. I would like to congratulate Dr Lew and thank him for his many years of contributions at NHGP, and wish him every success in the setting up of NUP.

I would also like to extend a very warm welcome to the Geylang Polyclinic team, led by Dr Jonathan Ting. Geylang Polyclinic was the largest polyclinic under SingHealth Polyclinics and we look forward to working closely with them as part of the NHGP family.”

ASSOCIATE PROFESSOR CHONG PHUI-NAH, CEO, NHGP

RESHAPING NHG

With the merger of the National Healthcare Group and Alexandra Health System, the new cluster will provide more integrated care for patients, care providers and the community in the Central region. There will also be more primary care networks and health promotion, wider career development opportunities for staff, cross-learning and dialogue across institutions and clusters, more knowledge sharing of new innovations, best practices, research and education.

“As with any reorganisation, change can understandably be uncomfortable and unsettling for some. That said, I strongly believe our patients will benefit; so will most of us, as we are served by a public healthcare system which cares enough to constantly revitalise itself to meet the healthcare needs of our population, now and in the future,” said Prof Philip Choo, Group CEO, National Healthcare Group (NHG)

CENTRAL REGION AT A GLANCE

Acute Hospitals

- ▶ TAN TOCK SENG HOSPITAL
- ▶ KHOO TECK PUAT HOSPITAL
- ▶ WOODLANDS GENERAL HOSPITAL* (name to be confirmed)

Community Hospitals

- ▶ YISHUN COMMUNITY HOSPITAL
- ▶ WOODLANDS COMMUNITY HOSPITAL* (name to be confirmed)

Primary Care

- ▶ ANG MO KIO POLYCLINIC
- ▶ GEYLANG POLYCLINIC
- ▶ HOUGANG POLYCLINIC
- ▶ TOA PAYOH POLYCLINIC
- ▶ WOODLANDS POLYCLINIC
- ▶ YISHUN POLYCLINIC
- ▶ SEMBAWANG PRIMARY CARE CENTRE*

National Specialty Centres

- ▶ INSTITUTE OF MENTAL HEALTH
- ▶ NATIONAL SKIN CENTRE

* Upcoming developments

“This reorganisation allows long-standing partners in the western part of Singapore to come together as a fully-integrated team to provide seamless care from prevention to home care, and with our academic institutions, to continue to develop solutions for Singapore’s healthcare challenges, and nurture the next generation of healthcare professionals.”



PROF JOHN WONG EU LI, GROUP CEO, NATIONAL UNIVERSITY HEALTH SYSTEM (NUHS)

“I am grateful to MOH and NHG for giving me the opportunity to lead the team in the new National University Polyclinics (NUP) under NUHS. I have grown with NHG since its birth in 2000, and I have had the opportunity of practising, learning and innovating new ideas and initiatives in primary care. I have also been immersed in the wider field of leadership, clinical and quality improvements, and culture-building within the NHG Family. In NUP, my team and I will continue with these best practices to strive for clinical and service excellence for our patients, and the community, and we will also play a role in training more Family Physicians for our nation. We seek everyone’s support as we embark on this new journey for NUP.”

DR LEW YII JEN, CEO-DESIGNATE, NUP

DIRECTORY FOR CENTRAL REGION

AN EASY GUIDE FOR YOU TO CONTACT OR LOCATE US

NATIONAL HEALTHCARE GROUP CORPORATE OFFICE

3 Fusionopolis Link
#03-08, Nexus @ one-north
Singapore 138543
Tel: 6496-6000 / Fax: 6496-6870
www.nhg.com.sg

TAN TOCK SENG HOSPITAL

11 Jalan Tan Tock Seng
Singapore 308433
Tel: 6256-6011 / Fax: 6252-7282
www.ttsh.com.sg

INSTITUTE OF MENTAL HEALTH

Buangkok Green Medical Park
10 Buangkok View
Singapore 539747
Tel: 6389-2000 / Fax: 6385-1050
www.imh.com.sg

KHOO TECK PUAT HOSPITAL

90 Yishun Central
Singapore 768828
Tel: 6555-8000
www.ktph.com.sg

YISHUN COMMUNITY HOSPITAL

2 Yishun Central 2
Singapore 768024
Tel: 6807-8800
www.yishuncommunityhospital.com.sg

NATIONAL HEALTHCARE GROUP POLYCLINICS

Contact centre: 6355-3000
www.nhgp.com.sg

NATIONAL SKIN CENTRE

1 Mandalay Road
Tel: 6253-4455 / Fax: 6253-3225
www.nsc.com.sg

NHG DIAGNOSTICS

Call centre: 6275-6443 (6-ASK-NHGD) /
Fax: 6496-6625
www.diagnostics.nhg.com.sg

NHG PHARMACY

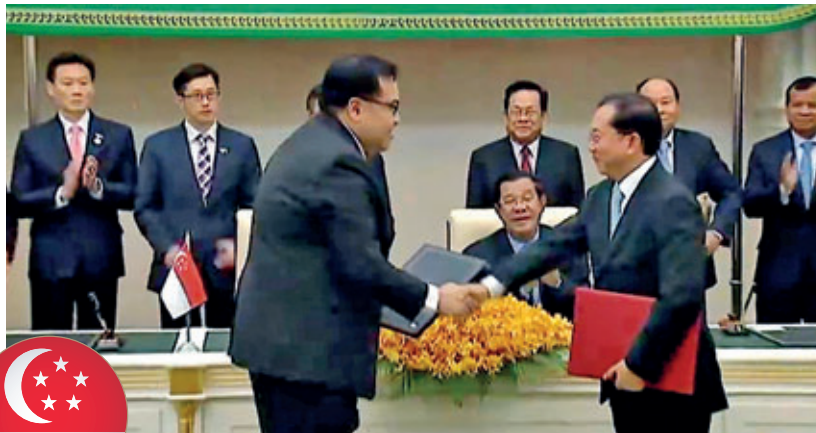
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NHG COLLEGE

Tel: 6340-2351 / Fax: 6340-3275
college.nhg.com.sg

JOHNS HOPKINS SINGAPORE INTERNATIONAL MEDICAL CENTRE

11 Jalan Tan Tock Seng
Tel: 6880-2222 / Fax: 6880-2233
www.imc.jhmi.edu



Professor Eugene Fidelis Soh, CEO, TTSH (left), renewed the training collaboration with Cambodia's Calmette Hospital in Phnom Penh.



MOU TO CONTINUE TRAINING

TTSH AND CAMBODIAN HOSPITAL EXTEND HEALTHCARE PARTNERSHIP TO INCLUDE MORE TRAINING OPPORTUNITIES.

Following a successful training collaboration between 2014 and 2016, Tan Tock Seng Hospital (TTSH) and Calmette Hospital in Phnom Penh, Cambodia have renewed their working relationship for another three years.

Under the new Memorandum of Understanding (MOU), both hospitals will continue their work on trauma care and resuscitation training. The first MOU was signed on 3 January 2014, and since then, 216 Cambodian doctors and nurses have been trained by TTSH staff in these areas through academic exchange programmes and courses, among others.

“By sharing with our counterparts, we also managed to learn from them, and the exposure to some of the patients (in Phnom Penh) has given us a good exposure to cases that we don’t see in Singapore,” said Dr Chua Wei

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DR CHUA WEI CHONG, CONSULTANT TRAUMA SURGEON,
DEPARTMENT OF GENERAL SURGERY AT TTSH



President Tony Tan Keng Yam and Cambodian Prime Minister Hun Sen witnessing the signing of the MOU.

Chong, Consultant Trauma Surgeon, Department of General Surgery at TTSH.

The new MOU also includes a broader range of training, such as intensive care nursing, intensive care medicine, as well as healthcare leadership and development.

TTSH CEO Professor Eugene Fidelis Soh said that TTSH has a long tradition of teaching and the hospital is glad to continue to co-learn and exchange best practices with Calmette Hospital.

This MOU was one of two agreements signed by Singapore and Cambodia on 9 January 2017 to boost cooperation in the fields of vocational education and healthcare. Singapore’s President Tony Tan Keng Yam and Cambodian Prime Minister Hun Sen witnessed the signing on the second day of Dr Tan’s state visit to Cambodia.

GIVING BACK TO THE COMMUNITY



STAFF FROM NHG/INSTITUTIONS AND OUR PARTNERS SHOW THAT THE ABILITY TO GIVE IS SOMETIMES THE BEST GIFT TO RECEIVE.



NHG staff and student volunteers brought festive cheer to patients at Ren Ci Hospital.

NHG Ushers In The Lunar New Year Of The Rooster

Over 60 staff and student volunteers from the National Healthcare Group (NHG), Yong Loo Lin School of Medicine (YLLSoM), and the Lee Kong Chian School of Medicine (LKCmedicine) brought festive cheer to the Society for Aged Sick (SAS) and Ren Ci Hospital during the Lunar New Year celebrations.

Mandarin oranges and goodies were distributed to 400 SAS residents and 180 Ren Ci Hospital patients. NHG staff and the students serenaded them with evergreen favourites and traditional songs. A staff member also dressed as the “God of Fortune” to wish all a Happy, Healthy and Prosperous New Year.

In line with NHG’s CSR efforts, staff across NHG and Institutions have been volunteering regularly at SAS since July 2015 via fortnightly visits to the home to facilitate arts and crafts occupational therapy sessions for the residents.

Mr Chin Leong, a first-year student at LKCmedicine, said it was a memorable experience interacting with patients at Ren Ci Hospital. “This is my first time volunteering and it is heartening to visit patients in step-down care. I wished we had more time to spend with them as I found the conversations enriching.”

Mr Amos Chan, a second-year medical student from YLLSoM said, “Although it was my second time going to SAS, the visit was a stark reminder me that the sick and frail elderly need care from the community. I truly enjoyed myself interacting with the residents and learnt a lot from them too.”

NHG staff and students from the Yong Loo Lin School of Medicine visited residents at the Society for the Aged Sick.





Painting With Heart

When a group of Tan Tock Seng Hospital (TTSH) residents were approached to try their hand at painting for charity, they were nervous about accepting the challenge. “Initially, nobody dared to take up a brush, but when we got down to it, it was actually quite therapeutic,” said Dr Vanessa Chong, Vice-Chief Resident, National Healthcare Group (NHG) Internal Medicine (IM) Residency.

Dr Chong, along with eight other residents and the Programme Director and coordinators from the NHG IM Residency Programme, participated in the charity painting session



Above: Dr Faith Chia (third from left), Programme Director, NHG IM Residency Programme, with the residents and programme coordinators.

on 19 January 2016, organised by ARTiculate, TTSH’s in-house Art Therapy community, the completed artworks will be auctioned off, with all proceeds going towards the TTSH Community Fund.

The charity was set up in 1995 to provide vulnerable patients with home-based therapy, nutritional programmes and assistive aids such as wheelchairs, dentures and hearing aids, as well as cover the costs for dialysis and non-standard medication.

Left: Internal Medicine residents unleashed their artistic talents for charity.



Serving With Care

Fostering a spirit of volunteerism was something staff from the National Healthcare Group (NHG) College always wanted to do together. So during the year-end festive period last year, Mr Lim Wei Beng, Assistant Director, NHG College, mooted the idea of helping out at Willing Hearts (WH) Soup Kitchen to his colleagues.

“I thought it was an excellent idea when the team suggested the visit, as it was a very meaningful way for everyone to end 2016,” said Ms Yvonne Ng, Executive Director, NHG College.

For an afternoon in December, 10 NHG College staff joined WH volunteers to collect donated food, prepare vegetables for the next day’s cooking and bake cupcakes. The team has plans to make regular visits to the soup kitchen.



Above: Yvonne Ng (front row, 2nd from left), and Lim Wei Beng (back row, left) and the NHG College team at Willing Hearts Soup Kitchen.



Left: NHG College members helping the Willing Hearts volunteers sort out donated vegetables.



Left: Senior citizens from Ulu Pandan Wellness Centre celebrate OT Day with TTSH Occupational Therapists.

Below: Participants posing with fruit props. Healthy Eating is the way to go!



TAKE CHARGE OF YOUR HEALTH

ON OCCUPATIONAL THERAPISTS' DAY, TTSH ENCOURAGED PATIENTS WITH CHRONIC DISEASES TO SELF-MANAGE THEIR CONDITION.

Conditions such as high blood pressure, Type 2 diabetes and asthma — while long-lasting and cannot be cured — shouldn't get in the way of patients being able to enjoy a decent quality of life.

This was the message Tan Tock Seng Hospital (TTSH)'s Occupational Therapy Department wanted to send out on Occupational Therapists' Day, on 19 January 2017.

To highlight the importance of self-management, it held a "DIY to Better Health" interactive exhibition as part of the day's activities. Highlights included a booth that provided tips on how to voice concerns and ask the right questions when seeing a doctor; a 'problem-solving' booth to help patients with daily tasks; and a 'goal-setting' photo-booth.

The event was supported by the Agency for Integrated Care, Housing



Above: Heidi Tan, Senior Principal Occupational Therapist in TTSH, explains the concepts of Self-Management using educational posters at the OT Day exhibition.

Left: Navigating Community Resources: Partners from TTSH's Department of Continuing and Community Care (CCC) engaging the public on ways to take charge of one's health.

Below: David Zhang, Principal Occupational Therapist in TTSH, guides a member of the public on the questions to ask Health Professionals during a consultation.

Development Board and Department of Continuing and Community Care, which provided relevant information on community resources to support self-management.

A pocket guide on self-managing chronic conditions by the Singapore Association of Occupational Therapists, National University Hospital and TTSH was also launched on that day.



STARS FOR HEALTH

Health is Wealth

Exercise Regularly

Regular exercise keeps illness away.

By taking charge of our well-being, we can serve our patients and partners better and scale greater heights in healthcare.



National Healthcare Group is a Regional Health System for Singapore. NHG collaborates with Hospitals, Specialty Centres, Polyclinics, Patients, Caregivers, Partners, Volunteers and the Community to **Add Years of Healthy Life** to the nation.



STARS FOR HEALTH

Health is Wealth

Eat Wisely

Eating well is fundamental to well-being – physical, psychological and social health.



National Healthcare Group is a Regional Health System for Singapore. NHG collaborates with Hospitals, Specialty Centres, Polyclinics, Patients, Caregivers, Partners, Volunteers and the Community to **Add Years of Healthy Life** to the nation.

