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JOINT CARE TOWARDS SAFER PREGNANCIES

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Managing pregnancy risks together

Joint clinics offer mums-to-be a safe way through their medical conditions.

By Thava Rani

MOST PREGNANCIES ARE uncomplicated. But problems can arise, affecting both expectant mother and her foetus, especially if she already suffers from a long-term medical condition like diabetes or congenital heart disease.

For that reason, Singapore General Hospital's (SGH) Department of Obstetrics and Gynaecology (O&G) has set up four special clinics with other medical disciplines to care more closely for these high-risk pregnancies.

The joint clinics allow women to consult their obstetrician together with another specialist in diabetes, cardiology, rheumatology or haematology to manage their other medical condition alongside their pregnancy.

"We believe the key to successful management of these pregnancies is to involve the different disciplines early in the course of pregnancy," said Associate Professor Tan Hak Koon, Head and Senior Consultant, Department of O&G, SGH.



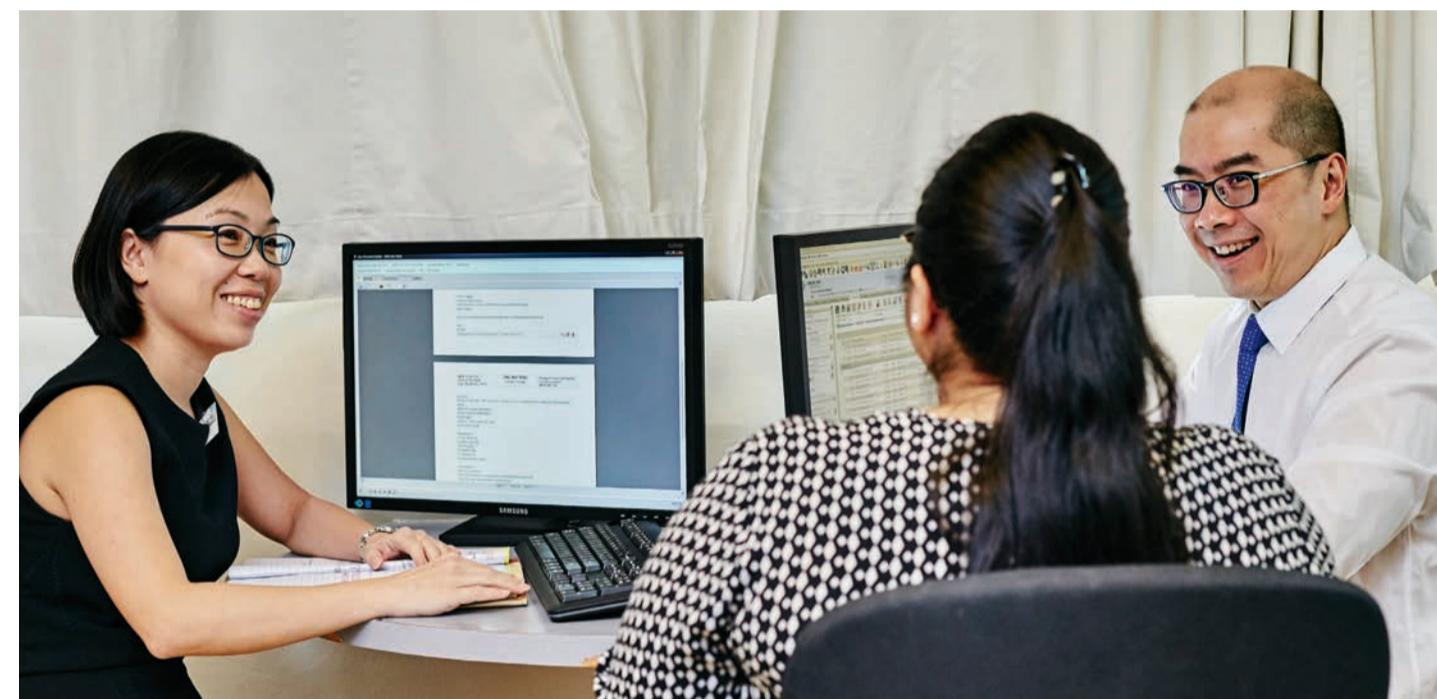
WITH EVERYONE COMING TOGETHER, OUR DOCTORS CAN WORK CLOSELY WITH PATIENTS ON HOW BEST TO MANAGE THEIR CONDITION.

ASSOCIATE PROFESSOR TAN HAK KOON, HEAD AND SENIOR CONSULTANT, DEPARTMENT OF O&G, SGH

"With everyone coming together, our doctors can work closely with patients on how best to manage their condition, anticipate problems that could happen during their pregnancy, and provide possible interventions."

During pregnancy, the body undergoes changes, heightening the chance of complications for not just these mothers with long-term illnesses but also their foetuses. For instance, women with diabetes must be extra vigilant with their blood sugar control. Otherwise, they might suffer a miscarriage, premature delivery or even stillbirth.

Changing demographics and other trends are hastening the need for such



PHOTOS: ANGELA GUO

joint clinics. The number of women who become pregnant after the age of 40 is increasing. Older mothers, as well as those who are obese and smoke, have a greater chance of developing blood clots and ischaemic heart disease or narrowed arteries, said Associate Professor Tan Lay Kok, Senior Consultant, Department of O&G, SGH.

Meanwhile, medical advances and better care are allowing young girls with serious or complex cardiac and rheumatology conditions to survive well into adulthood and to lead normal lives, including starting a family. But the stress that pregnancy places on the heart can be a problem for those with cardiac problems, for instance, said Prof Tan Lay Kok, who leads the joint clinics initiative.

At the joint consultations, doctors and their respective specialist teams see the patient at the same time. The patient no longer needs to make multiple trips to meet different doctors. More importantly, with both specialists at the same meeting, they can discuss changes in the condition of the mother or foetus, order tests and make decisions quickly.

In some instances, appointments for follow-up scans like an echocardiography for heart problems can be fast-tracked to within the same day. These routinely take a few weeks.

"In very complex cases, we hold a very detailed discussion prior to the delivery. We include a neonatologist and an anaesthetist as well, and run through

Hand-in-hand to combat high-risk pregnancies

	Its speciality
Diabetes joint clinic	Set up in 1995, the diabetes joint clinic sees women with diabetes or who develop it during pregnancy. Older, heavier women tend to develop gestational diabetes during pregnancy. Uncontrolled diabetes can lead to complications such as miscarriage, stillbirth, birth defects or high birth weight. Mothers can also develop high blood pressure, which may bring on other complications.
	Patients are taught to monitor their sugar levels and share weekly reports so that any problem is flagged to doctors quickly. Patients are cared for by an obstetrician, endocrinologist (diabetes specialist), dietitian and a diabetic nurse.
Rheumatology joint clinic	Set up in 2015, the rheumatology joint clinic sees patients with autoimmune diseases such as lupus, rheumatoid arthritis, systemic sclerosis or scleroderma. Because of their condition, there is a higher risk of miscarriage, early birth and even death.
Cardiology joint clinic	Set up in 2009, the cardiology joint clinic sees women who are born with heart disease, or older mothers who develop heart problems such as ischaemic heart disease.
	Pregnancy causes changes in the body, which may stress the heart. Heart disease is the main cause of death in pregnant women in developed countries. The women are monitored very closely, and given a list of symptoms to look out for, such as chest pain and persistent breathlessness.
Haematology joint clinic	Set up in 2017, the haematology joint clinic sees women with anaemia, and those with low platelet counts who have a higher risk of bleeding during pregnancy. It is also beginning to see more complex cases caused by blood clots. As pregnancy causes the blood to thicken, there is a higher risk of clots forming in expectant mothers, especially those who are older or heavier. A dislodged clot can kill.

> Continued on page 4

At the joint O&G-rheumatology clinic, Dr Poh Yih Jia (left), Consultant, Department of Rheumatology and Immunology, SGH, and Associate Professor Tan Lay Kok see patients at the same time. They are able to discuss the patient's condition and order tests if necessary. Decision-making is also much faster and patients don't have to make two separate visits.

> Continued from page 3

Managing pregnancy risks together



At the cardiology joint clinic, follow-up scans can be fast-tracked to within the same day. Dr Tan Ju Le (far left) performs an echocardiography on a colleague posing as a patient.

all possible scenarios. That way, we can give the patient the assurance she needs,” said Prof Tan Lay Kok.

Not all women with cardiac-related conditions need to be seen at the joint clinic, said Dr Tan Ju Le, Senior Consultant, Department of Cardiology, National Heart Centre Singapore, who runs the cardiology joint clinic together

with Prof Tan Lay Kok.

“Patients with very simple congenital heart disease can be managed at their usual consultations with their regular cardiologist. But if it’s a moderately complex case, I will usually advise them to seek consultation in the joint clinic,” she said.

Patients should not wait till they’re

Anticipating needs of older new mums

Singapore General Hospital’s (SGH) Department of Obstetrics and Gynaecology (O&G) may deliver fewer babies than most hospitals. But a third of the 2,800 pregnancies it sees a year are very complex cases requiring multidisciplinary care at its joint high-risk pregnancy clinics.

It had foreseen such care needs growing years ago, as trends like women starting families later emerged, and had set up its first joint clinic with the hospital’s diabetes specialists.

“If you’re pregnant and have diabetes or a heart condition, you will have to see different doctors. It would be very difficult to be running around to see them,” said Associate Professor Tan Hak Koon, Head and Senior Consultant, Department of O&G, SGH.

“We capitalised on our position

at SGH and set up joint clinics to see this group of patients, which our statistics show is getting larger and larger over the past 20 years,” Prof Tan said, referring to the more than 30 clinical departments at SGH complementing his department’s full obstetrics practice. SGH is also close to national speciality centres, including the National Blood Bank.

O&G patients assessed to be at high risk of complications are referred to the joint clinics. Pregnant women may also be referred from the other SGH departments as well as other restructured hospitals and private specialists.

The diabetes joint clinic operates most frequently at once a week, as almost a fifth of the high-risk patients suffer from this condition. The other three joint clinics are held once a month.

complications that might occur during their pregnancy and the precautions they should take.

The consultations continue after delivery to review the mother’s situation and to discuss future pregnancy plans.



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Heart disease in young on the rise

Young people who are at risk of coronary artery disease should do something about it now before it gets worse. By Thava Rani

HEART ATTACKS DO NOT JUST happen in older people. Doctors are noticing a new trend of people being stricken with it earlier in life, some as early as in their 20s.

These young adults tend to have some things in common, said Dr Chin Chee Yang, Consultant, Department of Cardiology, National Heart Centre Singapore (NHCS).

"Those in the under-40 age group are mostly men. They tend to have a strong family history of heart disease and/or high cholesterol, or are heavy smokers."

These are all known risk factors for coronary artery disease, a leading cause of heart attacks, said Dr Chin, who is also Adjunct Assistant Professor, Duke-NUS Medical School.

The disease ranges from a minor heart problem to a heart attack. Severity depends on how badly arteries feeding the heart are blocked. Patients are usually diagnosed when they experience symptoms such as chest pain or breathlessness upon exertion.

The plague of plaque

Coronary artery disease starts with a gradual build-up of fatty streaks in the coronary arteries. Arteries damaged by smoking, hypertension or diabetes are particularly vulnerable.

The fatty material eventually grows bigger and becomes a plaque, causing the arteries to become narrower and reducing blood flow to heart muscles.

Sometimes, plaque stops accumulating and becomes stable. This may cause chest pains but does not usually trigger a heart attack.

However, unstable plaque may rupture. Blood clots quickly form, in defence, around the rupture, but a clot may end up blocking the entire artery, depriving a portion of the heart muscle of oxygen-rich blood. That kills muscle cells and produces a heart attack. All this can occur in a matter of minutes.

"But there might be many others walking around with no symptoms, yet they have undiagnosed minor heart disease. This does not mean we should screen everyone, but we should selectively screen those with the greatest risk factors, even if they are young."

The main risk factors

One of the biggest risk factors for cardiovascular disease in young people is if a parent or close relative had a heart attack at a young age. Another is when either they or their family members have high blood cholesterol. Diabetes and high blood pressure also pose significant risks.

Among the races, Indians tend to be at greater risk, followed by Malays and then Chinese. Indian men under 40 years old are five times more likely to have a heart attack compared to their Chinese counterparts.

"While we can't do anything about race or genes, we can reduce risks by modifying our lifestyles. For instance, high cholesterol may have a genetic link, but eating right and exercising can reduce our overall risk."

Dr Chin said another big risk is smoking. A local study found that almost four in five people under 40 with heart attacks were smokers.

"With continuing public health efforts, you would think that the smoking rate might be decreasing. Conversely, it has increased from 18 to 25 per cent among young men in the 18 to 29 age group."

He said another concern is food, especially fast food as a quick fix for people on the go. The increasing reliance on eating out makes it more likely that

people will eat more unhealthy fried, high-salt or sugar-laden foods.

"With less time for exercise, the result is obesity, hypertension, high cholesterol and diabetes, all of which increase the risk of heart disease."

Dr Chin believes insufficient rest is also a contributing risk factor. This is because being constantly active means that adrenalin and other stimulant hormones and biochemicals are more often being secreted, and these may affect how the heart functions.

"Poor sleep has already been associated with hypertension, so a daily dose of uninterrupted sleep is highly recommended. Many of us compound our long working hours by keeping ourselves up longer at night with the use of our smart devices."

Prevention is everything

Cardiovascular disease is treated with medication and patients are advised on lifestyle changes. "These can control progression of the disease to a certain extent, but often they can't reverse the damage already done," said Dr Chin.

Heart attack patients are given immediate medication to thin their blood, and so prevent more clots from forming and clogging the arteries.

An angioplasty may follow, to mechanically clear the blockage, and a balloon is inserted to stretch the narrowed artery. Sometimes a stent may be implanted to keep the artery open long term.

However, patients who survive a heart attack are not out of the woods. "If there is severe damage to the heart muscle, they



▲ The number of young adults who are experiencing heart attacks earlier in life has been escalating of late.

“

LIFESTYLE CHANGES CAN CONTROL PROGRESSION OF THE DISEASE TO A CERTAIN EXTENT, BUT OFTEN THEY CAN'T REVERSE THE DAMAGE ALREADY DONE.

DR CHIN CHEE YANG, CONSULTANT, DEPARTMENT OF CARDIOLOGY, NHCS

may develop other complications in the future, such as heart failure, where the heart becomes weak and cannot pump as well as before. Life expectancy, too, is then decreased."

He said prevention is everything. "Adopting good lifestyle habits such as eating right, exercising regularly, getting sufficient rest and not smoking can go a long way in preventing cardiovascular disease."



»

Dr Chin Chee Yang lists high cholesterol, obesity, hypertension, diabetes, poor sleep and smoking as some of the risk factors for cardiovascular disease.



Having community nurses at the Al-Amin Mosque has great benefits for its members who are mostly the community's elderly, says Mr Nassharudin Abdul Rahman (far right). The programme also lets residents receive timely medical attention in the comfort of their home.

Much of the feedback that we received on our Al-Amin Mosque-SingHealth community nursing programme has been positive and complimentary. Residents can easily walk from their homes to see the healthcare team, with whom they have built a good rapport. The mass health screening and talk held at our mosque have benefited our elderly, not just Muslims but also residents of other faiths. We thank the SingHealth team for being our partner in this programme to address the health concerns of our community, and to empower them to take greater ownership of their health. We hope that this partnership will bring the mosque and the multiracial community closer together.

MR NASSHARUDIN ABDUL RAHMAN, PROGRAMME MANAGER, AL-AMIN MOSQUE

The community nurses who are based in the Montfort Care office make up for our social service providers' lack of medical expertise. We visit residents together so we get a better perspective of their social needs, and how to design new programmes. For instance, following nurses' feedback, we are looking into adding physical activities for more frail residents. Having community nurses in the neighbourhood allows residents to know the nurses well, and this allows them to discuss health-related issues in an open and safe environment.

MR HERMAN LIM, PROGRAMME MANAGER, MONTFORT CARE

The residents and I have built up a strong relationship of trust. They listen to what I tell them, such as the importance of keeping their medical appointments and taking their prescribed medications. Some residents have pet names for me. I am touched when they say I am like family instead of nurse to them.

MS MICHELLE LIEW MIN JIA, SGH-COMMUNITY NURSING



Filling care gaps

SGH pulls together organisations in the community as partners in health. Together, they create a strong safety net for residents and patients, ensuring they stay healthy and age well at home. By Rani Mohan

A 90-YEAR-OLD BREAKS HIS HIP and is admitted to hospital for surgery. He stays a week and is then discharged to a community hospital to recuperate. There, he is taught to walk with an aid. When he goes home, he will need someone to keep an eye on him if he doesn't have a carer. Even if he has family help and goes straight home after discharge, he still will need some support like someone to teach his caregiver to dress his wounds and help him in daily activities.

If such post-hospital help is not forthcoming, including long-term

support, chances are the nonagenarian will be back in hospital in no time. So how and who should provide these post-hospital services, ensuring that his recovery is smooth and uneventful?

For Singapore General Hospital (SGH), one way is in the partnerships that it forms with community welfare services. Another are the nurses that it stations in the community.

Back at SGH, two other classes of nurses ensure that patients going home are well supported, and if they aren't, referrals to a care facility are offered. Together they provide an important link

in medical care post-discharge.

"We play a key role in coordinating care in the community, between SingHealth institutions and community care partners," said Dr Low Lian Leng, Director, SingHealth Office of Regional Health, SGH Campus.

"What is increasingly important is our regional role, where we are responsible for the health of the residents in the communities around us. For instance, SGH tends to the needs of residents in areas like Bukit Merah, Telok Blangah, Tiong Bahru, Outram and Henderson. We take responsibility for the complete



(From left) Dr Low Lian Leng, Dr Lim Su Fee and Ms Xu Yi from SGH and Montfort Care's Mr Herman Lim work together to build a strong safety net for residents and patients in the community.



As a community nurse, Ms Michelle Liew Min Jia (centre) regularly holds classes on such topics like common medical conditions, healthy eating and falls prevention to make sure residents stay healthy.



Seeing residents at the Al-Amin Mosque, Ms Kalsom Saptu gets to know her community well and is able to follow up quickly when any resident has a medical problem.

care and health of not just our patients but residents in our areas."

Under the Ministry of Health's regional health system initiative, the island is carved up by geographical area, with care and the health of people coming under the responsibility of Singapore Health Services (SingHealth), the National Healthcare Group and the National University Health System. SingHealth's three major hospital groups – SGH, Changi General Hospital and Sengkang General Hospital – further subdivide the region for care.

For the SGH Campus cluster, medical care is supported by not just SGH but also the campus-based national disease centres like the National Cancer Centre Singapore and the Singapore National Eye Centre, KK Women's and Children's Hospital, and SingHealth Polyclinics, as well as private general practitioners.

According to Dr Low, the focus of care and the programmes that each campus sets up depend largely on the population mix of the area. SGH has an older population – 18 per cent of residents in its areas are at least 65 years old – while Sengkang has a younger demographic – just 7 per cent are elderly. Changi's demographic, meanwhile, is more in line with the 12 per cent national average of the aged.

"At SGH, we focus more on the ageing population – for example, in the prevention of frailty, and how to better integrate health and social care for our older adults who have more complex care needs," said Dr Low. He is also Consultant, Department of Family Medicine and Continuing Care, SGH.

Brave new world of community nursing

Despite the challenges, nurses are enthusiastic about providing healthcare services within the community. They build close bonds with residents and are part of the neighbourhood. By Lediati Tan

IN COMMUNITY NURSING, it's a brave new world where anything can happen.

Whether running a neighbourhood nursing post or visiting patients at home, community nurses often need to draw on their ingenuity and creativity. They often have to make quick, independent decisions. Unlike at a hospital or other healthcare facility, resources are limited and, if needed, nurses often have to make do with what's available.

For these nurses, however, the rewards are immeasurable. Whatever role they play, be they community patient navigators (PNs), hospital-to-home (H2H) or community-based nurses, they share a warm and close bond with the community they serve. For those running community nurse posts, in particular, they are often recognised and treated with respect by residents.

PNs and H2H nurses

When an SGH patient is admitted and requires close management and care coordination because of complex needs, a PN will look at what he needs and draws up a post-discharge care plan. This can include a transfer to community hospitals or other care facilities, meal deliveries by welfare organisations if the patients have little home support, and transitional care services such as the H2H programme.

"We are the link between hospital and home to make certain the patient's condition doesn't deteriorate after discharge, and that caregivers are well supported," said Dr Rachel Towle, Senior Nurse Clinician (Advanced Practice Nurse), SGH.

"For instance, someone with pneumonia may stay a week or two at SGH before being discharged. When he returns home, he can become very frail, making him prone to falls. If he does, he will have to come back to the hospital."

If he had a post-discharge plan, the patient might have gone onto SGH's H2H programme, where a nurse checks on him regularly at home to make sure he is taking his medication regularly and that his condition is improving. The nurse ensures his carer understands what to do, like how to dress his wounds, and take his temperature and blood pressure. The nurse also addresses any problems that the patient and his carer might have during the visit.

Dr Towle, who leads a team of 63 nurses – 21 of whom are PNs and the rest H2H nurses – said the H2H service runs for as long as six months, after

which the patient is "transited to a community care provider for long-term care and follow-up". These may include community care partners like NTUC, Home Nursing Foundation, Senior Activity Centres (SACs), Thye Hua Kuan Moral Charities and Montfort Care.

Community nurses

Community-based nurses are ensconced in familiar senior activity and family service centres that residents frequent, playing the part that family and caregivers might: keeping a close tab on the well-being of elderly residents, checking their blood pressure, making sure they take their medications correctly, and just being available for seemingly small questions like "Do I have a fever and need to see a doctor?"

"We want our community nurses to be part of the community, to be actively involved in their neighbourhood. We don't want them to be 'guests,'" said Dr Lim Su Fee, Assistant Director, Nursing (Advanced Practice Nurse), SGH.

"The reason is that we want them to be accessible to residents. They are always with the residents, so they know them and their conditions well. That way, they can follow up quickly if residents feel unwell or have any other problem."

She leads a team of 29 community nurses who, like their PN and H2H counterparts, are senior healthcare professionals. They need to work independently, and draw on not just their nursing but also organisational and clinical decision-making skills.

"Residents go to the SACs almost daily. They may have concerns but don't want to go to a clinic because they aren't really ill. They just want some advice or to be assessed. So the nurse on site assesses and advises whether they need to see a doctor," said Dr Lim.

The nurses can't prescribe medicine or treatment, but have the multidisciplinary resources of SGH and the SingHealth Group to refer patients to.

"Community-based nursing is patient care that extends beyond the hospital. At the hospital, the focus is on treating sickness. In community nursing, the focus is on prevention and maintenance," said Dr Lim.

"If we manage residents' chronic diseases well, they might not have to visit the A&E as frequently. They can be managed at the polyclinics and see community nurses in between their regular visits."

My elderly patient is in her late 80s, suffers from multiple long-term conditions, and is constantly in pain. She lives with her maid in a four-room flat. She didn't want to take her medicine because she wanted God to take her away and not be a burden to her married children. But as I spent more time with her, I managed to lift her spirits and persuade her to take her medication.

MS KALSON SAPTU, SGH-COMMUNITY NURSING

One of my patients needed a hospital bed and other equipment because she had bed sores and amputated limbs, and also needed assistance with breathing. So before her discharge after a long hospital stay, I discussed with her family her care at home, their needs and concerns. I coordinated with them to ensure that everything she needed was ready at home before her discharge. I even organised things as seemingly simple as putting the vendors' contacts within easy reach during an emergency.

MS ROSE BORHAN, SGH-PATIENT NAVIGATOR

Many of my H2H patients live in rental flats, so their finances and resources are often very tight. When I teach a patient how to administer his diabetes injections at home, for instance, I wouldn't insist that alcohol swabs be used to sterilise the injection site. Instead, he can use a clean wet tissue to clean his skin and let it dry before injecting the insulin. Having a chronic disease already affects them financially, psychologically and emotionally, so I don't want to add to their stress.

MR RAFIUDDIN HALIM, SGH-HOSPITAL-TO-HOME



Dr Rachel Towle (left, with Mr Rafiuddin Halim and Ms Rose Borhan) leads a team of patient navigators and hospital-to-home nurses.

A+ can give to B+

SGH performs Southeast Asia's first blood-group-incompatible living-donor liver transplant. By Denyse Yeo

A SON, NO MATTER HOW LOVING or willing, usually can't give a portion of his healthy liver to his ailing father if their blood groups don't match. This is because the latter's immune system will mount an attack on the donated organ, perceiving it as foreign and a danger.

But a new Singapore General Hospital (SGH) treatment protocol has allowed a father-and-son pair to undergo a blood-group-incompatible or ABOi liver transplant. The success of the landmark transplant – it is the first in Southeast Asia – means that those needing a liver transplant urgently now have a greater chance of finding a potential donor.

"Typically, the blood group of the donor and recipient must match for liver transplant," said Associate Professor Jeyaraj Prema Raj, Director, Liver Transplant Programme, SGH, and Head, SingHealth Duke-NUS Liver Transplant Centre.

(Seated, from left) Mr Chen Qingzhong, whose blood group is A+, donated part of his liver to his father, Mr Chen Yu Hui, whose blood group is B+, in a 12-hour transplant procedure.

(Standing, from left) The transplant team included Professor Alexander Chung, Associate Professor Jeyaraj Prema Raj and Associate Professor Cheow Peng Chung – all from SGH's Department of Hepato-pancreato-biliary Surgery.

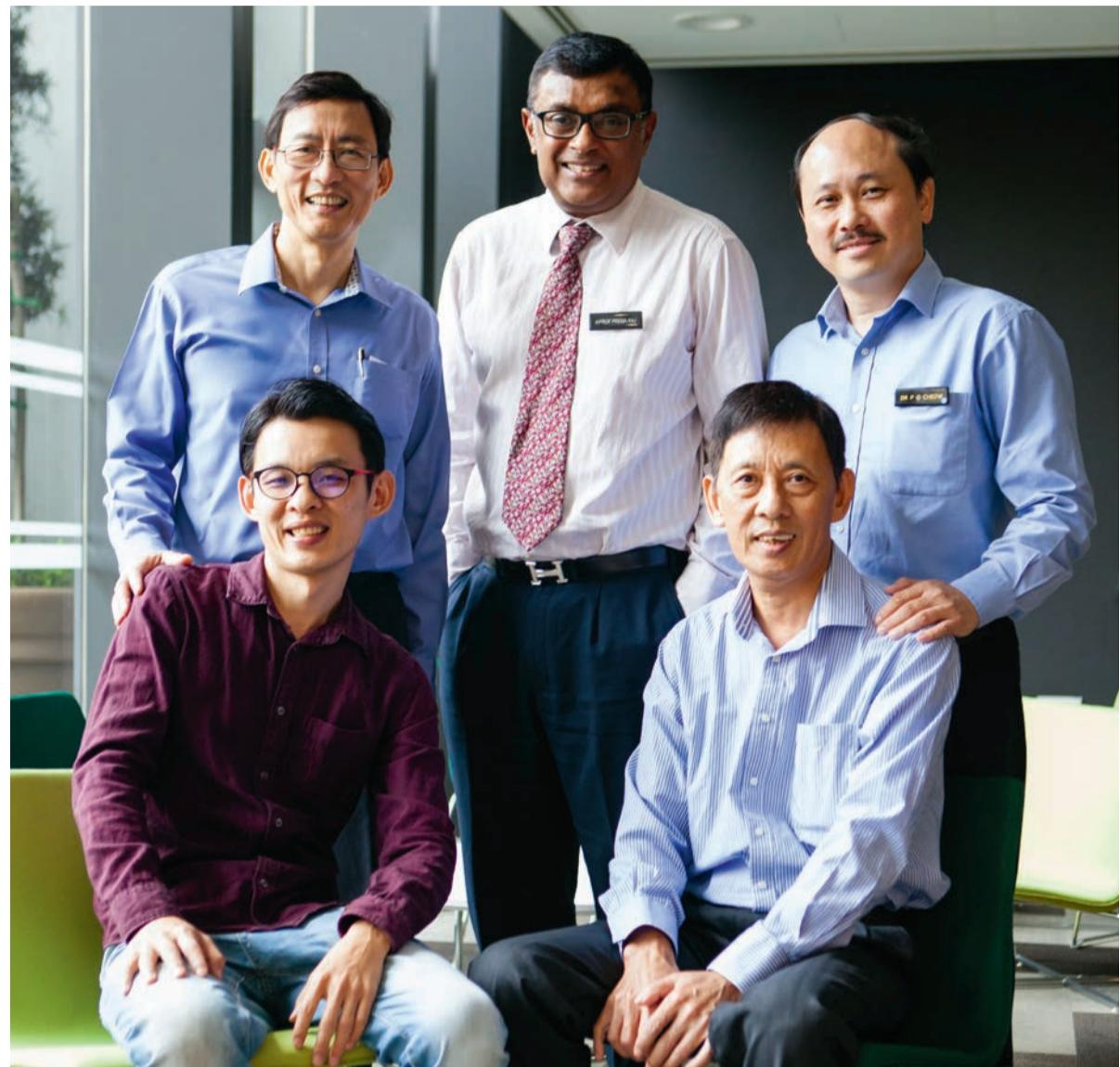


PHOTO: ALVIN LIM

THE PAIN FROM THE OPERATION WAS NOT AS MUCH AS NOT GIVING DAD A SECOND CHANCE. THE PHYSICAL PAIN CAN BE OVERCOME.

MR CHEN QINGZHONG, WHO GAVE A PORTION OF HIS LIVER TO HIS FATHER, MR CHEN YU HUI.

"With this treatment protocol, ABOi liver transplant may be possible between some recipients and living donors. Both must undergo stringent tests prior to surgery and regular medical follow-up with their doctor post-transplant."

The SGH liver transplant team used

a treatment protocol adapted from transplant centres overseas after studying how it was done in places like Japan and South Korea. The treatment involves only removing the ABOi-blood-group-specific antibodies, he said.

The team also drew on the experience of the SGH kidney transplant team, which has been performing ABOi living-donor kidney transplant and tissue-incompatible transplant since 2009 and 2013 respectively.

"The treatment allowed us to 'reprogramme' the human body to accept an ABOi graft, which had not been possible before. Because this was the

first case, we had to get it right. Failure would have meant re-transplant or death. But we were confident because this has been done overseas many times," said Prof Prema Raj, noting that 50 per cent of living liver-transplant donors in Japan and South Korea are ABOi.

The SGH team performed the first ABOi living-donor liver transplant in July 2017. Mr Chen Qingzhong, 32, donated part of his liver to his father, Mr Chen Yu Hui, 56, in a 12-hour operation. The son's blood group is A+ while the father's is B+.

A son's sacrifice

The elder Mr Chen suffered from liver cancer, hepatitis B and liver cirrhosis. Without a liver transplant, he would have had less than two years to live. He was not eligible to receive a liver from a deceased donor because there was a high chance his cancer could recur. Organs from dead donors are prioritised for liver cancer patients whose illness is least likely to recur.

The younger Mr Chen offered his liver to try and save his father's life. "The pain from the operation was not as much as not giving Dad a second chance. The physical pain can be overcome," he said.

To ensure that nothing would go wrong, the team prepped relentlessly. A large multidisciplinary team that included

medical and allied health professionals, as well as blood support from the Health Sciences Authority and SGH Blood Bank, was involved.

To prepare for the transplant, the SGH team gave Mr Chen Yu Hui the drug rituximab to suppress production of antibodies in his blood. The drug is normally used to treat some autoimmune diseases and cancer. He was also put on a special dialysis machine to reduce the antibodies already present in his blood to a level low enough for the transplant.

Two weeks after the transplant, the elder Mr Chen went through another round of dialysis. The level of antibodies in his blood was also measured every day to ensure it remained low.

Both men recovered well and continue to receive follow-up medical checks. The younger Mr Chen even became a new father in November 2017. He had 60 per cent of his liver taken out for transplant, but within six weeks of the procedure, his liver grew back to 100 per cent, said Prof Prema Raj.

As with other people who have received a donor organ, the elder Mr Chen will be on immunosuppressants for life. But one year after his transplant, Mr Chen is down to taking just one drug of low dosage, said Prof Prema Raj.

ABOi liver transplant numbers

5-YEAR survival rate of ABOi liver transplant patients:
71%*

5-YEAR survival rate of ABO-compatible liver transplant patients:
71.5%*

Patients waiting for the liver of a deceased donor:
9 in 2007;
49 in 2017;
52 AT END-JUNE 2018*

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A recipe for wellness

This cooking class provides patients with meal ideas for their medical conditions.



PHOTOS: BRIGHT VISION HOSPITAL

At BVH's Healthy Cooking demonstrations, Ms Lock Poh Leng doesn't just explain how a dish is cooked. She also discusses the nutritional values of ingredients and how they boost health. In this class, she gives attendees tips on bone health.

THIS COOKING CLASS PROVIDES PATIENTS WITH meal ideas for their medical conditions.

eating, and of cooking with a wide range of ingredients.

"We can equip our patients with the nutritional knowledge that they need through the cooking demonstrations and practical lessons. They can then better manage their condition by eating healthy food when they are discharged," said Mr Edward Chan, Senior Dietitian, Dietetics and Nutrition Services, BVH, SCH.

For the session that featured the omelette, the emphasis was on bone health and the prevention and management of osteoporosis. "In the context of a well-balanced diet, an adequate amount of calcium and vitamin D is needed to build strong bones and help our patients heal from fractures," said Ms Lock.

For that session, three patients and their carers were invited. They were given the Healthy Bones recipe to follow as Ms Lock showed them how to prepare and cook the cheese and vegetable omelette. They also participated in a quiz on bone health to test their knowledge on nutrition, and were given tips on eating well to recover better. A question-and-answer session at the end of the hour-long class ensures that participants understood what was taught.

Hospital dietitians see patients in the wards daily, assessing their condition and advising them on their nutritional needs.

They also draw up meal plans based on patients' medical conditions and food preferences, taking into consideration their cultural backgrounds, religions and lifestyles.

The team started the Healthy Cooking Demonstration programme as an additional service for patients,

had not expected such services to be available at a hospital.

She was happy to have found the recipe simple and easy to follow, adding that she would "definitely" try it at home. "The best part is that it also tastes so good!" she said.

For Mr Teo, the programme underscored "the passion and the commitment of the hospital staff and volunteers... in making a difference in patients' lives".

Such appreciation from participants makes the work involved in each session well worth the great lengths that the team goes to in ensuring patients and their carers understand the importance of eating well, said Ms Lock.

Preparations take almost a day, and includes buying ingredients fresh on the same day.

"It is a lot of effort to prepare the demonstration. We always buy the ingredients on the same day of the demonstration to make sure everything is fresh, and that takes some time," said Ms Lock, adding that hospital volunteers like Ms Caral Goh, Ms Joanna Tan and Ms Nicole Ow are roped in to help out.

The volunteers have to arrive by 9am at the hospital for a briefing and are then given a supermarket shopping list. They also help prepare the ingredients by washing and cutting the meat and vegetables.

"The demonstration is very interactive and fun. I picked up a few things about healthy recipes myself!" said Ms Ow.

MR EDWARD CHAN, SENIOR DIETITIAN, DIETETICS AND NUTRITION SERVICES, BVH, SCH

WE CAN EQUIP OUR PATIENTS WITH THE NUTRITIONAL KNOWLEDGE THAT THEY NEED. THEY CAN THEN BETTER MANAGE THEIR CONDITION BY EATING HEALTHY FOOD WHEN THEY ARE DISCHARGED.

conducting a session every three months. For many of the patients participating in the programme, the service is an eye-opener.

Madam Jasmine Ng, a patient who took part in the Healthy Bone session, said it was "something very different" from their hospital routines, and that she and her husband, Mr Edward Teo,



Participant Madam Jasmine Ng (with husband Mr Edward Teo) was pleasantly surprised that the Healthy Cooking programme was available to patients at the hospital.

Why do we need calcium and vitamin D?

Our body uses calcium to build and maintain strong bones and teeth. Older adults need more calcium because bones lose calcium as we age. Adults aged 51 years old and above need 1,000mg of calcium daily.

Calcium is found in:

- Low-fat dairy products such as milk, yogurt and cheese
- Canned sardines with bones
- Anchovies (ikan bilis) with bones
- Tofu (tau kwa)
- Soya bean milk
- Green leafy vegetables such as kai lan and chye sim

Vitamin D helps absorb calcium and is available in:

- Fatty fish
- Egg
- Oyster
- Shrimp
- Shiitake mushroom
- Cereals
- Orange juice

Designed with patients in mind

Those with complex medical conditions have one-stop easy access to multiple specialists here.



EMr Gan Kim Yong, Minister for Health, meeting Pepper the robot at the pharmacy. With him (from left) are Dr Lee Chien Earn, CEO, CGH; Dr Amy Khor, Senior Minister of State, Ministry of Health (MOH); Professor Ivy Ng, Group CEO, SingHealth; Mr Edwin Tong, Senior Minister of State (Health and Law), MOH; Ms Joanna Wong, Director, Allied Health, CGH; and Ms Sharifah Wardah, Principal Pharmacist, Pharmacy, CGH.

Designed with patient-centred care in mind, the location of the various facilities makes it easier for patients to get to them and for doctors to consult each other.



IT WAS A BIG DAY for Pepper the robot at the official opening of Changi General Hospital's (CGH) Medical Centre.

One of many robots already in use at CGH, Pepper, a social robot, was stationed at the pharmacy to inform patients where to collect medicines and pay bills.

It sprang into action when Mr Gan Kim Yong, Minister for Health, and other leaders stopped by the pharmacy while touring the centre.

Faster, smoother, simpler!

The nine-storey building – part of CGH's expansion – has 190 consultation and treatment rooms, and focuses on providing integrated multi-specialist care for people with complex medical conditions.

"With an ageing population in eastern Singapore, care for our patients will become more complex, with more coordination needed," said Dr Lee Chien Earn, Deputy Group CEO, SingHealth Regional Health System and Chief Executive Officer, CGH.

A key feature of the Medical Centre is the "Multi-Specialty Practice" where patients with more complex medical conditions can see different specialists on the same day, resulting in faster diagnosis and more timely treatment.

The Medical Centre was designed for patient-centred care. Related outpatient clinics are sited close to each other, to make it easier for patients to get to them,

and for doctors to consult each other. Supporting services are also located within the clinic – for example, spirometry procedures in the Lung and Integrated Sleep Clinic.

Patients can get same-day referrals to more than one specialist if needed. Minor surgery, such as wound stitching, can be done on the same day without prior scheduling or inpatient stay. Automation and innovation have also streamlined processes. For example, prescriptions sent electronically to the pharmacy make for one-stop payment.

"In designing the Medical Centre, we wanted to transform the care experience of patients and caregivers, not just to improve the quality of care but also to assure, enable and empower them," said Dr Lee.

The Medical Centre reflects the overall CGH Campus Vision – a concerted "whole of hospital" approach to transform care based on the evolving needs of patients and the community.

Mr Gan said: "As Singapore continues on our journey towards a patient-centric and seamless integration of care services, we hope that the close partnership of our primary care providers, hospitals and specialist outpatient centres like the CGH Medical Centre will continue to grow and strengthen. Together, we can continue to deliver accessible, quality and affordable healthcare to all Singaporeans."

WHY COLLAGEN IS IMPORTANT?

- Collagen is the most abundant fibrous structural protein naturally produced by the body. This structural protein plays a fundamental role in holding the body together. Moreover, our joint structure is mainly composed of collagen.

- For example, **cartilage**, a connective tissue found in the joints between bones, is made up of 67% collagen. As for **ligaments** and **tendons**, they are composed of 80% and 90% of collagen respectively!

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A peek inside Punggol Polyclinic

This polyclinic brings specialist eye care and other patient-centred services closer to home for residents. By Stephanie Yeong



The Community Eye Clinic offers follow-up care to patients with pre-existing stable and non-complex eye conditions.

HOLISTIC, AFFORDABLE AND seamless primary eye care is now available at the Community Eye Clinic, located within the newly opened SingHealth Punggol Polyclinic (SHP-Punggol) at Oasis Terraces.

Situated on the fourth floor of the polyclinic, residents can get to the eye clinic via a sheltered linked bridge from Oasis LRT station at Level 3.

The eye clinic offers follow-up care to patients with pre-existing stable and non-complex eye conditions. These include stable glaucoma, early cataract, early diabetic retinopathy and maculopathy, and others. A joint effort by SingHealth Polyclinics (SHP) and the Singapore National Eye Centre (SNEC), the Community Eye Clinic receives new patients on an appointment basis, through polyclinic referrals. Patients with stable eye conditions previously under



Besides seamless primary eye care, the SingHealth Punggol Polyclinic at Oasis Terraces also caters to other healthcare needs.



The Parata Mini machine dispenses pills quickly and accurately at the Outpatient Pharmacy, increasing work efficiency.



With PILBOX, patients can pick up their medication 24/7 at their convenience.

the Specialist Outpatient Clinics care at SNEC will be offered continued eye care at the Community Eye Clinic. Those with eye conditions or ailments that need specialist care will be referred to SNEC for further management.

The opening of the Community Eye Clinic is expected to cut down waiting time for eye consultation, and complex eye cases will be fast-tracked to the Specialist Outpatient Clinics. The biggest benefit is the clinic's accessibility, which makes it more convenient for residents to receive effective follow-up eye care.

Dr David Ng, Clinic Director at SHP-Punggol, said: "The goal is to treat eye diseases earlier to slow down and even prevent permanent vision loss. The launch of the Eye Clinic ensures that the polyclinic will be able to evolve and match the needs of residents as the demographic ages over the next 10 years."



All visits to the Dental Clinic are by appointment only.

Other services

► Gestational Diabetes Mellitus Programme

Initiated in collaboration with KK Women's and Children's Hospital, this pilot programme ensures better follow-up care for new mothers with gestational diabetes, who are at an increased risk of developing Type 2 diabetes.

► Dental, Physiotherapy and Podiatry Services

These services are available by appointment only. Physiotherapy and podiatry services require referrals from SHP doctors.

► Automation at the Outpatient Pharmacy

Making use of robotic technology to pick and package medication according to prescriptions, this system improves accuracy and work efficiency. This effectively reduces patients' waiting time at pharmacies.

► PILBOX (Prescription In Locker Box) Service

Patients can pick up their medication at their convenience from these locker boxes located at the clinic. The 24-hour service is available seven days a week. To use it, patients need to sign up with the staff at the pharmacy.

► SHP Centre of Research Excellence

Housed within the polyclinic, the facility is dedicated to research into chronic disease management, preventive healthcare and innovations that directly impact primary care. The findings will be used to improve the services offered at SHP.

PHOTOS: ALVIN LIM

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What it's all about

One of SingHealth's top nurses, she got a taste of what it is all about very early on, and stayed. **By Lediati Tan**

TWAS 20 YEARS AGO, but the incident is clear in her memory.

Looking back on her early days in nursing, Ms Ng Gaik Nai, currently Chief Nurse, KK Women's and Children's Hospital (KKH), recalls a pivotal point in her career when it was clear what being a nurse was all about.

It was at KKH's Children's Intensive Care Unit (CICU), when she was part of a team trying to resuscitate a young child who had collapsed at home.

She recalls how it broke her heart to hear the child's mother crying out her child's name. "My tears were rolling down even as we continued trying to resuscitate the child," she said.

Sadly, the child did not survive. But the memory is still vivid.

Ms Ng, who is now also SingHealth's Deputy Group Chief Nurse, said that such life and death situations do affect staff. "But we always try to support each other emotionally."

She finds that peer support really

makes a difference. "The bond between doctors, nurses and allied health workers is very strong. We allow each other to express what we feel, but while we cry behind the scenes, when we are ready to break the bad news, we have to be there to help our patients through it."

The highest accolade

Ms Ng joined nursing in 1986 for pragmatic reasons. Due to family financial constraints, she could not afford to further her studies. Nursing, however, gave her a chance to study and acquire a skill. In time, she came to love the job and uphold its ideals.

She started at Singapore General Hospital, then joined the team at KKH's CICU.

Her priority now is in ensuring that clinical standards are maintained and patients get safe, high-quality care.

As Chair of SingHealth's College of Clinical Nursing, she works with educators to shape and oversee the training and



WE NEED TO CHANGE OUR MINDSET ABOUT THE WAY WE DELIVER HEALTHCARE TODAY. WE NEED TO USE TECHNOLOGY TO IMPROVE OUR PRODUCTIVITY AND EFFICIENCY.

MS NG GAIK NAI, CHIEF NURSE, KKH & DEPUTY GROUP CHIEF NURSE, SINGHEALTH

development of SingHealth nurses, and provide them with opportunities to learn new skills so that they can perform optimally at work.

She also develops strategies for the future, and has been instrumental in bridging the gap between technology and nursing, including setting up the Nursing Informatics Unit at KKH to integrate technology into nursing practice.

She is convinced that technology

can transform nursing practices. "We need to change our mindset about the way we deliver healthcare today. With a shrinking workforce, we need to use technology to improve our productivity and efficiency."

She has also used her skills to contribute to the community, and was one of six nurses given the President's Award for Nurses last year. Considered the highest accolade for the nursing profession, it honours recipients for their excellent contribution to the profession and the community.

Use your senses and your heart

So what is her advice to young nurses?

"It remains a tough job and challenges abound," she said. "Don't be afraid to ask questions, work as a team and support each other. Learn to stay focused and use your senses such as sight, hearing and listen to your patients."

"Most importantly, use your heart. Your heart must be for the patient. If you work hard and practise long enough, you'll be rewarded on this journey of caring and never-ending learning, through life's sorrows and joys."

She said it is important to stay positive even through the bad times. "Failure can teach and strengthen you. If you don't try, you'll never know if you can succeed."

Looking back, she has no regrets about joining nursing. She said it is a fulfilling job making a difference in someone's life. "If you ask me to choose again, I'll still choose nursing."

Ms Ng Gaik Nai advises young nurses to have a heart for their patients. Only then will they find the nursing journey a rewarding one.



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A privilege to serve

Palliative care is not about giving up on patients but helping them live fully in the time they have left, says this palliative physician. By Claire Turrell



PHOTO: VERNON WONG



Dr Shirlynn Ho wants her patients to let go of the notion that they are a burden to their family. Instead, she says by letting others into their lives, they are enriching these people's lives and helping carers cope with future grief.

DR SHIRLYNN HO'S FIRST encounter with palliative care was as a medical student during her fourth year in medical school. That stint also coincided with her aunt suffering from lung cancer.

As she watched her mother caring for her sibling, something struck a chord in her. But it was not a clarion call to specialise in palliative medicine. She had some reservations, she recalled. "I found it meaningful but difficult. Also, I didn't have the confidence of handling death so often," she said.

But although it didn't feel like "a medical posting singing karaoke and giving massages to patients", she could see that it was helping them. After a few years working in other sections of the hospital, Dr Ho knew she wanted to make a difference to the care of cancer patients, and chose to specialise in palliative care.

The biggest misconception

Dr Ho, currently Consultant, Division of Supportive and Palliative Care, National Cancer Centre Singapore (NCCS), has been seconded to Assisi Hospice as head of medical service as well as a consultant palliative physician.

She said it is a privilege and honour to care for patients and their families. "I feel honoured that they let me into their private space, where barriers are down, and share things with me. They don't feel they have to pretend that things are perfect – because they're not."

She said the biggest misconception is that palliative care means giving up on

patients. "When patients are referred to us, they're introduced to a wider family of people who can support them. We have doctors, nurses, therapists and others who can help them improve their quality of life and realise their goals."



I FEEL HONOURED THAT THEY LET ME INTO THEIR PRIVATE SPACE, WHERE BARRIERS ARE DOWN, AND SHARE THINGS WITH ME. THEY DON'T FEEL THEY HAVE TO PRETEND THAT THINGS ARE PERFECT.

DR SHIRLYNN HO, CONSULTANT, DIVISION OF SUPPORTIVE AND PALLIATIVE CARE, NCCS

The palliative team always tries to nurture realistic hope in patients. "We diversify hope – hope for quality of life, finishing university studies, spending more time with the family... small wins that help empower them."

Creating memories

Members of the team always try to do something special for patients, from little things such as taking them to eat a favourite meal at a hawker centre, to flying them somewhere to meet relatives.

we can decide how we're going to face challenges. They've taught me, through their regrets, about what they would not have spent time doing."

One patient who left a mark on her was a 21-year-old woman with a tumour that left her paraplegic and blind.

"It was amazing to see her courage, not just for herself but for her family. She was determined to continue her university studies. When too weak to attend classes in her wheelchair, she studied online. Her mother wondered if it was too tiring for her daughter but we advocated it because it was something she wanted to complete."

While she tries to maintain a professional composure, losing a patient can make her tear up. And when things get tough, she de-stresses by going for a long walk to clear her head.

Since the days of her aunt's cancer, Dr Ho has seen great leaps forward in palliative care. "There's better infrastructure, a better link with community care, and families are not falling through the cracks. We're also more willing to ask patients where they want to be cared for."

But there's still some way to go.

"The key is to make palliative care part of the conversation. Even though talking about death is still taboo, it's important to do so because it encourages us to live life more fully."

One family outing at Gardens By The Bay was for a young woman with two weeks to live, who wanted to see the trees light up at night. Every last detail was thought of by the team – from the physiotherapist checking her route around the park before she arrived, to the social worker providing her with make-up artist skills for the keepsake photographs.

"We want to help create good memories. It's important for patients and their families to remember the person, not just the cancer."

She advises patients to let others in. "Very often they think they're a burden to their family. But by allowing others into their lives, they're enriching these people's lives and helping carers cope with future grief."

Life lessons from patients

Dr Ho said her patients have taught her a lot. "They've taught me how to live more fully. We don't always have control over our lives or economic circumstances, but

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PHOTO: CHANGI GENERAL HOSPITAL

Who are the befrienders?

Neighbours for Active Living (Neighbours) is a social-health integration programme founded by Changi General Hospital and the South East Community Development Council to help vulnerable seniors in the community.

The Friend-A-Senior @ South East programme trains volunteers to support the Neighbours' community care teams in reaching out to seniors in their communities. Also known as befrienders, they visit seniors to help reduce their social isolation.

This could mean accompanying them when they go shopping for their groceries, reminding them to take their medication, or taking them to hospital for appointments.

There are now more than 600 trained befrienders aged 7 to 82 in the Southeast district of Singapore.

For more information on becoming a befriendeer, visit [www.cdc.org.sg/southeast/contentdetails/neighbours-for-active-living-\(Friend-A-Senior-programme\).](http://www.cdc.org.sg/southeast/contentdetails/neighbours-for-active-living-(Friend-A-Senior-programme).)

Thursdays with Mr Bala

Retired engineer Mr George Lee looks back at how his volunteer visits as a befriendeer to the late Mr Kangasar Balasundram (Mr Bala for short) turned into a friendship with the man and his family.

THURSDAYS! I ALWAYS LOOKED forward to Thursdays. That was the day I used to visit 89-year-old Mr Bala until he passed away in June last year.

Mr Bala lived with his son, but since his son was out working, except for the helper, he was usually alone during the day.

I know what it's like to be lonely. After my bypass operation, I was lonely because although I have a loving family, they couldn't be with me all day.

After the operation, I felt that I was given a new lease of life, and decided to use the time to do something positive and give back. That's when I joined the Friend-A-Senior @ South East programme and was assigned to Mr Bala.

Good company

He and I hit it off from Day 1. Conversation was always easy. Although his body was frail, his mind was strong and alive. He read the newspapers and loved chatting about the burning issues of the day, especially American politics. Our views

were similar, so we never had fractious arguments. But I had to do my homework and read the papers to keep abreast of the news before visiting him.

We had other things in common too. We both loved sports (cricket for him, football for me) and were interested in religion (Hinduism for him, Christianity for me).

Sometimes if he wanted to buy something, I'd accompany him to the shops. But because he couldn't walk far, we'd usually just stay indoors and chat.

Mr Bala loved company and always told me how much he enjoyed my visits. His son, too, always told me how much he appreciated my help. But I enjoyed the visits just as much, and I was actually the one being helped.

I learnt so much

He helped me learn how to listen. Previously, as a mechanical engineer running my own workshop, I was used to giving orders. Most of my communication with people involved giving orders, because we had to get the job done. I

didn't listen much. But after hours of talking and debating with Mr Bala, I learnt how to listen. I learnt how to have a proper conversation.

I also became less focused on my own needs and more aware of those of others. I started to realise how precious time is, and how important it is to spend it with the people you care about. I started reaching out to my friends.

Through Mr Bala, I was also introduced to many new experiences, including Indian food, which I seldom had a chance to eat. On one of his birthdays, he invited me to join his family at an Indian restaurant for lunch. His daughter had flown in from Australia. I felt very honoured on that special day.

My role as a volunteer with the Neighbours For Active Living team was also to give feedback on Mr Bala's health and progress. Sometimes families can be concerned about these regular befriendeer visits, but I soon became a friend of the family. They knew I only wanted to help.

Mr Bala knew I painted small artworks for my fellow church members and he

asked if I could paint one for him. He chose one of my bolder designs showing a man praying, which included a verse from Mark 11. I had it framed, and he kept it permanently on his coffee table.

My last visit

During my last visit, Mr Bala was at the hospital. That was a most challenging day for me. He had stopped speaking, so I knew how ill he was. When I arrived, he was sleeping, so I just stayed by his bedside and said a prayer.

When I received the call from his son informing me that Mr Bala had passed away, I'm not embarrassed to say that I cried. I choked up knowing that such a special person was now no longer with us.

When I reflect on the many visits over the four years I spent with him, I can see how much I enjoyed them, and how much I've learnt. Truly I have received so much more than I gave. Thank you, Mr Bala!



PHOTO: VERNON WONG

Mr George Lee continues his volunteer work as a befriendeer, offering companionship and support to vulnerable elderly people in the community.



As bad gums can cause complications in major surgeries, surgeons require dental clearance before proceeding with the operation.

New dental clinic at DMC

Patients with diabetes and metabolic conditions can now be treated at a new dental clinic at Singapore General Hospital's Diabetes and Metabolism Centre (DMC).

The DMC is an integrated, multi-disciplinary centre providing a one-stop service for patients with diabetes and metabolic conditions.

It provides clinical services in the area of diabetes, endocrinology, renal medicine, vascular surgery, ophthalmology (vitreo-retinal services), internal medicine, podiatry and dietetics. Patients are charged consultation fees accordingly after their full-mouth periodontal examination and diagnosis is done.

Patients can have same-day referrals to the clinic by their doctors if there are available appointment slots.

Beyond just bad gums

Diseased gums can trigger diabetes and may also cause issues elsewhere in the body.

By Sridhar Gopalratnam

SOME SERIOUS HEALTH CONDITIONS have been linked to poor gum health. One of them is diabetes. Another could be a heart ailment.

The link to diabetes is clear. Dr Chee Hoe Kit, Consultant, Department of Restorative Dentistry, the National Dental Centre Singapore (NDCS), said patients with diabetes are especially vulnerable to gum diseases.

"Because people with diabetes are medically compromised, they have twice the risk of getting serious gum disease than non-diabetics," he said. "Sometimes they don't even know they have diabetes until they visit the dentist, where it is detected."

From July 2016 to April 2017, more than 30 per cent of NDCS patients were found to have undiagnosed pre-diabetes, and a further 29 per cent with undiagnosed diabetes.

How it happens

Dr Chee explained that the higher blood sugar levels in diabetics cause reduced blood flow to the gums, making them more susceptible to bacteria.

A mild form of gum inflammation is gingivitis, which is easily reversible.

At this stage, patients may not feel anything. By the time they feel pain, inflammation or when their gums bleed spontaneously, their gum pockets may be too deep.

Gum pockets in healthy gums are around 1mm to 2mm deep. In those with poor oral hygiene or gingivitis, they are deeper than 3mm and can trap food. Without regular brushing or visits to the dentist, gingivitis can develop into periodontitis, where gums become inflamed and the supporting structures of the teeth are weakened.

"It's good for the dentist to ask patients to get a blood test done. And it's important for diabetic patients to see a dentist at least once a year to evaluate their oral health," said Dr Chee.

Dental screening is not just a visual inspection of teeth and gums but includes measuring the gum pockets around each tooth to check for gum disease. A full-mouth periodontal charting will be done for a complete dental diagnosis.

Bad gums and the heart

Some studies have also found an association between deficient gums and heart disease, although this has not

been proven conclusively.

Dr Chee said bacteria from oral cavities enter the bloodstream through loose gum pockets and travel to organs such as the heart. Bacteria settling in heart valves can cause bacterial endocarditis.

Patients with serious gum disease do not necessarily have to be checked for heart disease, but heart patients must get pre-surgery oral checks.

As a precaution, cardiologists will refer these patients to periodontists (gum specialists) before heart surgery. This is to check if loose teeth need extraction before procedures such as heart valve repair surgery.

Bad gums can also cause complications in major surgeries, so surgeons require dental clearance before going ahead.

For instance, in knee replacement surgery, patients will need antibiotics to prevent bacteria in infected gums from causing local inflammation around the knee, where there is low blood flow.

Bad gums can also result in gingival overgrowth after a kidney transplant if the patient is on immunosuppressants, so dental clearance is needed before the transplant.

Looking after your gums

As a matter of general health, it is important to maintain good oral health. Besides brushing or gargling twice a day, as well as regular flossing, regular visits to the dentist are also crucial.

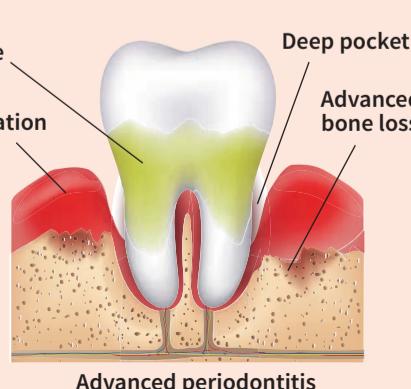
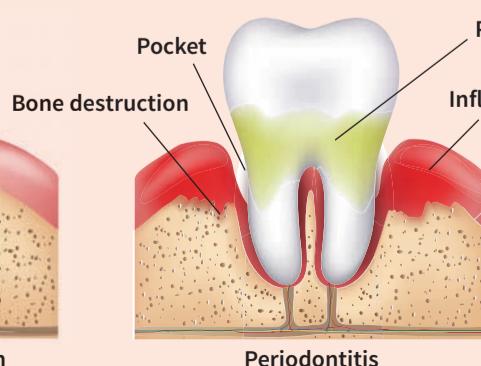
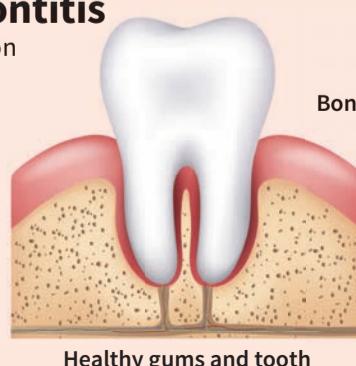
Dr Chee urged people to see their dentists at least once a year, and ask for full mouth and gum examinations, including gum measurement. Gum problems can be detected through regular checks of gums and teeth colour. Redder gums and shaky or misaligned teeth may all be precursors to gum disease.

"If the patient is diagnosed with mild gum disease, he can make an appointment to be treated at the DMC dental clinic by oral health therapists. If the patient has moderate to severe gum disease, he can be referred to the Periodontics Unit at NDCS, or he can opt to see his own private dental GP."

Patients with no gum disease are still advised to seek regular scaling and polishing at the polyclinic or private dental clinics at their convenience.

Periodontitis

Inflammation of the gums



Dr Chee Hoe Kit urged people to see their dentist for a full mouth and gum examination every year.



The importance of baby naps

How short sleep routines can enhance your baby's cognitive and social development. By Annie Tan



► Every baby has his own circadian rhythm or body clock, so parents should watch out for yawning, irritability, crying and other behavioural cues that suggest their baby wants a nap.

WHEN BABY TAKES A NAP, overworked parents get a brief respite from exhausting, round-the-clock care. More importantly, a nap reduces crankiness and lets babies recharge.

In fact, naps are far more important than many parents think, said Dr Imelda Ereno, Senior Resident Physician, Department of Neonatal and Developmental Medicine, Singapore General Hospital (SGH).

"It is a misconception that when you are sleeping, your brain is resting. Growth and repair occur during sleep. Sleep supports neurodevelopment and the organisation of brain cells. It also affects a baby's ability to learn, and regulates his behaviour and interactions with others," she said.

"A well-rested baby is better able to concentrate, process new information, interact positively with others, and deal with conflict and challenges."

How can parents tell if their baby has enough sleep? According to Dr Ereno, well-rested babies tend to be happy babies. Those with interrupted or insufficient sleep are often more irritable, fretful, clingy, temperamental or restless.

That said, parents shouldn't be too

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GROWTH AND REPAIR OCCUR DURING SLEEP. SLEEP SUPPORTS NEURODEVELOPMENT AND THE ORGANISATION OF BRAIN CELLS. IT ALSO AFFECTS A BABY'S ABILITY TO LEARN, AND REGULATES HIS BEHAVIOUR AND INTERACTIONS WITH OTHERS.

DR IMELDA ERENO, SENIOR RESIDENT PHYSICIAN, DEPARTMENT OF NEONATAL AND DEVELOPMENTAL MEDICINE, SGH

quick to double or triple naptime. Bear in mind that napping is not a one-size-fits-all state. One factor to consider is the baby's age: Younger ones tend to need more sleep, as their brains are developing more rapidly. Generally, newborns below

six months of age may need around three naps a day. As they grow older, they need fewer but longer naps. So babies between six and 11 months may need just two naps, while toddlers between one to three years old may sleep just once during the day.

How often a baby needs to nap varies, depending on the individual and his own circadian rhythm or body clock. Dr Ereno suggested that instead of sticking to a sleep schedule, parents should observe baby for cues such as yawning, eye rubbing, crying, irritability, grumpiness, finger-sucking and inattentiveness.

"Pull your baby out of activities when he is tired. If you miss the window when your baby is nicely drowsy, he will become irritable, which makes it harder for him to fall asleep," she said.

Sleep cues are also a way of establishing sleep routines for babies six months and older who have better established body clocks, she added.

How well a baby sleeps is as important as how often. Taking a catnap isn't a full cycle where the various stages of sleep are completed – it should be at least half an hour or 50 to 60 minutes when babies reach three months of age.

"A full sleep cycle is important for optimal repair and development.

Waking early can lead to fussiness and meltdowns," she said.

For a baby to sleep well, electronic devices such as mobile phones, tablets and laptops should be switched off at least two hours before naptime. These devices emit blue light, which affects sleep-wake cycles.

Turning down lights, reducing noise levels and removing toys are other ways of creating a soothing environment that is conducive for sleep. Establishing a pre-nap routine is also important. Telling a story, reading, singing a lullaby and cuddling are cues that will be associated with sleep.

As much as possible, naps-on-the-go in a stroller or car should be avoided, Dr Ereno said. Babies can become reliant on rocking or motion to fall asleep. For the same reason, parents should try not to rock or nurse their baby to sleep.

"Infants around three to six months of age can learn to self-soothe. However, when babies are being rocked or nursed to sleep, they don't learn to self-soothe. Instead, they perceive motion or feeding as a cue to go to sleep," she said.

"Establish boundaries between activities. When your baby has finished breastfeeding, do something else – change his diaper or sing a lullaby – before putting him to sleep."

While general rules and routines are important, Dr Ereno stressed that it is important to be flexible.

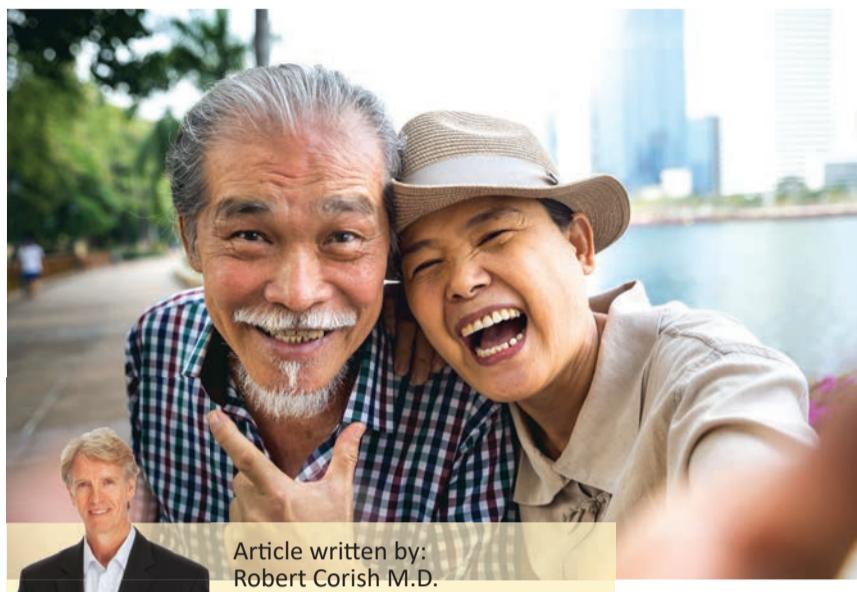
"The challenge is to establish comfortable and effective routines without the rigidity and boredom that can result from too much structure. Taking away choice from babies and toddlers may affect character development," she said.

As with all other things, sleep training is ultimately a fine balancing act.



Dr Imelda Ereno says that while general rules and routines are vital, it is also important to be flexible when it comes to baby naps.

Being Strong and Mobile through Your Golden Years



Article written by:
Robert Corish M.D.
Medical Advisor for AstaReal

While I worked at a hospital in the Midwest (USA), it wasn't too often that I had to treat a farmer. However, whenever this occurred, I noticed that most farmers were generally in their mid-70s and presented with a manageable complaint - typically an injury or joint pain. Indeed, farmers normally have strong physiques, consisting of normal weight, good metabolism (no diabetes, rarely hypertension, strong immunity) and boundless energy levels. Therefore, one day I asked a farmer... what's the secret to his robust health and energy? He replied, "Keep moving!"

This is in line with new medical research which has discovered that strong active muscles have an enormous effect on our overall health and longevity.

Groundbreaking Discovery

In medical school, doctors were taught that the role of muscles was for locomotion, movement and activity. Obviously true. However, new groundbreaking research has discovered that active-working muscles release chemical signals called **Myokines**.

What myokines do:¹

- Improve memory, executive function and cognition
- Stimulate fat metabolism & energy production, stimulates bone formation
- Inhibit mammary cell breast cancer
- Inhibit colon cancer formation
- Regulate muscle growth

These myokines travel to other organs such as: the heart, brain, bones, joints, digestive tract, immune system and more - where they stimulate growth, repair and renewal.

Indeed, research has uncovered over a thousand different myokines and we are only just learning about the powerful impact that these myokines have on our entire body and health system.

Unfortunately, many doctors consider that as we age, the loss of strength, muscle mass, and frailty - collectively known as **Sarcopenia**, is a normal part of ageing, for which there is no treatment. If left unchecked, this gradual muscle loss and corresponding decline in myokine production will lead to frailty and is often linked to lower quality of life and higher risks of various health issues.

Sarcopenia

Sarcopenia begins in our early 30s, when we begin to lose about 1-2% of muscle mass per year depending on how inactive we are, and this process gathers speed with age especially from mid-50s onward. Although 1-2% per year may be perceived as only a "small" loss, the corresponding reduction in muscle myokine levels has profound consequences. Moreover, it has been shown that the development of sarcopenia precedes many disease processes including cardiovascular disease, osteoporosis and cognitive impairment, leading some researchers to suggest that sarcopenia and reduced myokines may play a role in some medical problems.

In fact the Japanese orthopedic association has determined that mobility and strength are such crucial keys to

longevity and health, that they have created a national campaign promoting specific exercises to be performed daily - to counteract sarcopenia and frailty and thereby improve mobility, strength and overall health. This awareness in Japan contributes to longer health span in Japanese seniors.

This problem will be particularly challenging for the fast ageing Singapore society. By 2050, nearly half (47%) of all Singaporeans will be over the age of 65². It is therefore increasingly important to minimise the future social costs of sarcopenia.

Causes of Sarcopenia/ Frailty Include:

- Inadequate physical activity - sedentary lifestyles
- Poor diet - Insufficient protein intake, excess carbohydrates
- Low levels of antioxidants & Vitamin D
- Smoking - high oxidative stress
- Chronic medical problems including: diabetes, obesity, hormones, medications

How to Beat Sarcopenia

The three major strategies to conquer sarcopenia involve: physical activity, protein intake and antioxidants.

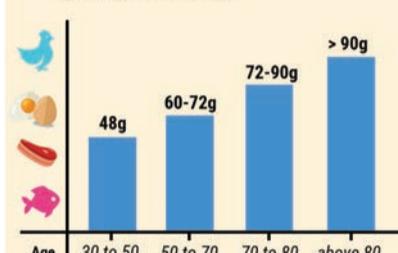
Exercise

The greatest remedy to counteract sarcopenia and frailty is physical activity - essentially, any form of activity or exercise which involves muscular-skeletal work, because muscular contractions stimulate myokine release.

Low physical activity is not only associated with loss of muscle and myokines but it is also associated with low energy, fatigue, weight gain and metabolic disturbances.

Therefore, as we reach 50, endurance and strength (weights) exercises become important, since these activities force the muscle fibers to contract and work producing maximum benefits. Cycling, swimming or a brisk walk for 30 minutes or longer are great endurance exercises, whereas climbing stairs or 5 to 10 half

Latest protein recommendations^{3,4,5} (daily intake):



5 to 10 half squats, 3 times a day serve as excellent resistance-type activities. For those who work at computers, frequent breaks incorporating some muscular exertion is essential.

Nutrition

Poor protein intake contributes to sarcopenia. Consequently, knowing that protein provides the building blocks for the musculoskeletal system. Sufficient protein is required for growth, maintenance and repair. When protein levels are low, muscles lose strength, size and function i.e. sarcopenia.

Antioxidants – Astaxanthin & Tocotrienol

Due to the mechanics of muscles and joints, they are constantly subjected to oxidative stress and inflammation, both of which facilitate sarcopenia, joint disease and frailty. A latest US study has shown that taking a formulation of 12mg of astaxanthin with tocotrienol for 90 days was able to reduce oxidative stress & reduce inflammation. Best of all, this formula suppressed sarcopenia and improved muscle mass (2.5%), strength (11%) and endurance (45%) in senior individuals (65 to 85 years old) who already demonstrated signs of sarcopenia and frailty⁶.





PHOTO:ISTOCK

During diagnosis, fever may be considered a clue, because it suggests an infection somewhere in the body. Encephalitis is suspected if infections are found elsewhere in the body and accompanied by confusion, drowsiness or seizures.

When a virus infects the brain

Encephalitis is challenging to diagnose, but early detection and treatment may prevent permanent brain damage. By Suki Lor

ENCEPHALITIS IS AN INFLAMMATION of the brain that results in swelling and damage. The membranes surrounding the brain (known as meninges) may sometimes be affected as well.

Anyone of any age can get it. In mild cases, patients recover well and return to normal. Some may recover without treatment – for example, in encephalitis caused by various viruses for which no specific medicine is available or effective, and where the immune system clears the infection.

In more serious cases, patients can develop memory problems or seizures. In the worst cases, some end up bedridden, comatose or lose their lives.

What causes it?

The inflammation can be caused by infections from outside the body, or by the body's own immune system attacking the brain, said Associate Professor Kevin Tan, Senior Consultant, Department of Neurology, National

Neuroscience Institute (NNI).

"Well over 100 types of viruses and bacteria can cause the infection. This makes it challenging to track down the culprit," he said.

Brain infections can occur in a few ways. "Any infection around the head or face can potentially enter the brain because of the close proximity. Sometimes bacteria from certain infections in other parts of the body get transported by blood to the brain, causing the brain infection," added Prof Tan.

Autoimmune encephalitis is a condition when brain inflammation is caused by the body's own immune system attacking the brain. There are many subtypes of autoimmune encephalitis and doctors are still trying to understand it.

Is it really encephalitis?

But how do you know if it is encephalitis or something else?

Symptoms of encephalitis can include confusion, drowsiness, seizures or weakness focused on one part of the

body. These symptoms may also be seen in other brain conditions, making initial diagnosis difficult.

Doctors would consider other clues, such as fever, to help with the diagnosis. "A fever suggests an infection somewhere in the body. In evaluating patients, we also look for infections in other parts of the body. We would suspect encephalitis if we do not find infections in the common sites and the patient is still confused," said Prof Tan.

Tests to help diagnosis

Time is of the essence when it comes to diseases of the brain. Encephalitis can progress quickly, within hours or days. Taking symptoms and features as a whole, if doctors suspect encephalitis, various tests are done to try and identify the cause.

"It is absolutely vital to diagnose it quickly because, with any infection, you want to treat it before it starts to cause permanent damage," said Prof Tan.

"Usually we start off with brain scans,

either CT [computer tomography] or MRI [magnetic resonance imaging] scans."

MRI scans offer better resolution and more detailed information about the brain than CT scans. But CT scans are more readily available and can yield quick answers, such as whether it would be safe to do a lumbar puncture.

In a lumbar puncture, a fine needle is used to extract fluid from the space around the spinal cord in the lower back region.

"The fluid can be tested for infections or antibodies that may suggest that the condition is autoimmune in nature," said Prof Tan. A lumbar puncture would not be carried out if CT scans show significant swelling in the brain, because it could worsen the condition.

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WELL OVER 100 TYPES OF VIRUSES AND BACTERIA CAN CAUSE THE INFECTION. THIS MAKES IT CHALLENGING TO TRACK DOWN THE CULPRIT.

ASSOCIATE PROFESSOR KEVIN TAN, SENIOR CONSULTANT, DEPARTMENT OF NEUROLOGY, NNI

"Blood tests are still important as sometimes they are useful in providing the answers to the diagnostic question."

Unfortunately, laboratory tests are not available for all bacteria and viruses that can cause encephalitis.

"We test for the ones we know about and can be tested for. If we get a positive result, we know how to treat the patient. However, if the encephalitis is caused by one of the others that we do not have a test available, then we will not know for sure."

Can it be treated or prevented?

If encephalitis is caused by an infection, antibiotics are usually prescribed for up to a few weeks. Surgery may be required if complications arise.

"If you get swelling in the brain, sometimes you need to relieve the swelling with brain surgery," said Prof Tan.

Prevention is available but limited to a few specific types of encephalitis. Prof Tan said vaccines exist for Japanese encephalitis, which is caused by a virus and transmitted by infected mosquitoes.

"It is extremely rare in Singapore, but travellers who are heading to parts of the world where this form of encephalitis is prevalent may need to get vaccinated."

The Japanese encephalitis virus, however, is only one of a myriad of viruses and bacteria that can cause encephalitis.

"There is no single vaccine to prevent all types of encephalitis," said Prof Tan, who hopes that more research can be done on the disease so that diagnosis can be made more quickly and accurately.

Ketogenic diet: fad or fab?

Weighing the benefits and risks of the popular low-carb diet. By Annie Tan

ABUZZWORD IN WEIGHT LOSS today, the ketogenic diet has been touted as a quick way to shed kilos, improve heart health and control diabetes. What began as a treatment for children with hard-to-control epilepsy in the 1920s has been gaining momentum of late.

But this wildly popular diet is also controversial as it tips the traditional balanced food pyramid. Instead of carbohydrate forming the bulk of one's calorie intake, it drastically restricts daily carbohydrate consumption to between 20g and 50g (less than a bowl of rice), and replaces it with protein and fat.

When the body's first source of energy – carbohydrate – becomes unavailable, it then taps into the 500g of glycogen – a form of glucose that serves as energy storage – stored in the liver and muscles. Once that too is depleted, it turns to fat stores.



THE BEST [DIETARY] INTERVENTION IS A SUSTAINED ONE WITH BOTH SHORT-TERM AND LONG-TERM BENEFITS.

DR THAM KWANG WEI, SENIOR CONSULTANT, DEPARTMENT OF ENDOCRINOLOGY AND DIRECTOR AT THE LIFE CENTRE, SGH

"With a lot of weight loss attempts, the body fights back with hunger-adaptive hormones, which makes us want to eat more. That is why people regain weight. However, when your body breaks down fat, ketones are produced. These counteract hunger hormones and suppress hunger pangs," said Dr Tham Kwang Wei, Senior Consultant, Department of Endocrinology and Director at the LIFE Centre, Singapore General Hospital (SGH).

Short-term studies have shown that people on this diet lose weight faster initially – an average of 7 per cent of their weight in six months – as compared to other low-fat diets. This

can have a positive psychological effect on many dieters.

One problem, though, is people may over-indulge in processed meats like sausages or fatty cuts of meat, when they should go for lean types like fish and chicken, pick poly- and monounsaturated fat such as olive oil and avocado, and complex carbohydrates such as quinoa and oats.

A diet high in saturated fat has been shown to increase the risk of heart disease, a low-fibre diet increases the risk of cancer, and a high-protein diet

of meat and dairies has negative long-term effects on the kidney.

Moreover, patients with multiple health problems such as kidney failure, poorly controlled diabetes, or those taking medications like diuretics should consult a doctor before starting this diet. A very-low-carbohydrate ketogenic diet can lead to dehydration, low blood pressure and the worsening of renal function, Dr Tham said.

"The initial phase of a very-low-carbohydrate ketogenic diet leads to diuresis [loss of water] and the loss

of potassium and magnesium. While the water loss leads to the initial rapid weight loss and drop in blood pressure, this may lead to dehydration, which may in turn lead to worsening of kidney function in people taking diuretics or who have kidney failure. The low-blood potassium and magnesium can also predispose the susceptible individual to cardiac arrhythmias, muscle cramps and weakness," she said.

Diabetic patients may benefit from the drop in blood sugar levels and overall improvements in glucose control. "However, patients on medication and insulin who suddenly go on a low-carbohydrate diet may experience hypoglycemia [low blood sugar], which can be dangerous. Medications may need to be either pre-emptively reduced or blood sugars and pressure be closely monitored," she added.

Dieters may also lack important nutrients like vitamin B when they cut out carbohydrate or grains. So a multi-vitamin supplement is necessary.

When these guidelines are followed, the ketogenic diet is generally safe for most dieters in the short term. Whether such a diet is safe if followed over a long period is unclear as longer-term studies on its benefits and effects are yet unavailable.

To sustain weight loss for long-term health benefits, Dr Tham suggests a slow transition period of reintroducing some complex carbohydrates, learning new healthy eating habits, and exercising regularly to reduce sugar levels and hunger pangs.

"The best [dietary] intervention is a sustained one with both short-term and long-term benefits," she said.



Dr Tham Kwang Wei advises a slow transition period combining healthy eating habits and regular exercise to achieve long-term sustainable weight loss.



Don't cramp your style

How to ease and prevent sudden and painful muscle cramps. By Annie Tan

IF YOU FIND YOURSELF GRIPPING your foot in agony during your morning swim, or wake up from a jolt of pain in your calves at night, you are not alone. Muscle cramps are extremely common, with most people having experienced one at least once in their lives.

"Almost everyone would have experienced some form of muscle cramp. They are sudden, involuntary and painful contractions of one or more muscles," said Dr Poh Seng Yew, Senior Consultant, Department of Orthopaedic Surgery, Singapore General Hospital (SGH).

"Most cramps last for a few seconds. However, some may last for 10 to 15 minutes, and can be so painful that the patient is literally gripping his limb."

Common areas for a cramp to occur include the calves, thighs, foot arches, arms, hands, chest and abdominal wall.

Though the cause is not always clear, factors such as dehydration and muscle overuse may contribute towards it.

"When you are dehydrated, the fluid and salt balance around the muscle is affected. This results in abnormal muscle activity in the form of cramps," Dr Poh said.

"Intense exercise that causes muscle overuse or direct trauma to the muscle may also result in cramps. This may happen when an athlete engages in an activity he is not usually accustomed to. In such cases, he should rest, regulate his activity, or train so that the muscle is more accustomed to this kind of activity," he added.

While anyone can suffer from cramps, some individuals tend to be more prone to it. Studies suggest that the elderly, especially those over the age of 65, tend to suffer from it more frequently.

"With age, there is loss of muscle mass, and the remaining muscles get fatigued more easily, resulting in cramps. Some other hypotheses include muscle and nerve degeneration, and the prevalence of medical conditions such as circulatory disorders, which come with age," he said.

Pregnant women are another group that is more prone to cramps, particularly in the calf. As the foetus grows within the uterus, it presses on the nerves and blood vessels that pass through the abdomen and into the legs, causing a circulatory disturbance to the lower limbs.

Venous blood that is low in nutrients and oxygen, and high in waste, pools in



MOST CRAMPS LAST FOR A FEW SECONDS. HOWEVER, SOME MAY LAST FOR 10 TO 15 MINUTES, AND CAN BE SO PAINFUL THAT THE PATIENT IS LITERALLY GRIPPING HIS LIMB.

DR POH SENG YEW, SENIOR CONSULTANT, DEPARTMENT OF ORTHOPAEDIC SURGERY, SGH

◀ Circulatory disturbance to the lower limbs during pregnancy can lead to cramps.



PHOTO: ISTOCK

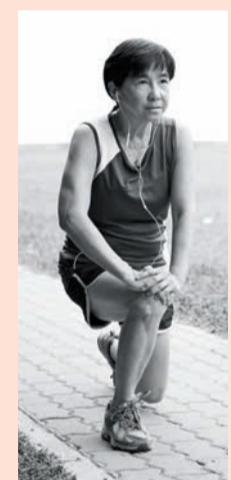
Keeping cramps at bay

Hydrate, hydrate, hydrate
Drink plenty of water before intense physical activity.



Warm up, cool down
Stretch major muscle groups for five to 10 minutes before and after exercising.

Stretch calf muscles



If prone to night cramps, do calf stretches or light exercise such as riding a stationary bicycle before bed. Keep the toes propped up towards the body, with a pillow placed at the end of the bed to keep the calves in a stretched position.

Wear compression stockings
If the cause of the cramp is venous insufficiency, wear compression stockings to reduce the pooling of venous blood in the legs.



PHOTO: FRENCHESCAR LIM

the legs and causes abnormal muscle activities, which manifest as cramps. Hormonal changes during pregnancy also affect circulation in the limbs.

The good news is most cramps are manageable and go away on their own. Dr Poh recommends rest and simple stretching exercises.

"Stretch the affected muscle for about 15 to 30 seconds to lengthen it, and repeat the stretch as necessary until the muscle relaxes. You can also apply a warm towel or hot pack over the area, or give yourself a warm massage. Avoid vigorous exercise for at least an hour following a cramp to allow the muscles and nerves to recover," he advised.

Although usually innocuous, cramps may sometimes be a sign of more serious underlying conditions such as nerve compression, poor blood circulation, and electrolyte imbalance because of diet or medication. Cramps may also be a sign of diseases like diabetes, thyroid, liver, kidney or heart condition, he said. Red flags include redness, leg swelling, skin changes, numbness or muscle weakness.

When cramps become more frequent and painful, and affect quality of life or sleep, seek medical advice. In such cases, doctors may prescribe muscle relaxants to ease the discomfort while they evaluate the underlying cause.

Cramps usually go away on their own, says Dr Poh Seng Yew.

HEALTH XCHANGE

Too young to get floaters?

I'm a 31-year-old woman who's had floaters in my eye since I was 29. I was told at an eye check that this is due to ageing, so is it uncommon to get floaters at my age and can I prevent them? Will they increase my risk of retinal problems in the future? I'm short-sighted and in my job, I'm on the computer for long hours. How can I protect my eyes and how often do I need eye checks?

It is not uncommon to get floaters at your age. The average age of onset is from 30 years onwards but floaters have been known to occur even in teenagers. Short-sighted people are at an increased risk of developing floaters.

You cannot prevent floaters. And computer work, watching television or looking at hand-held devices such as your mobile phone do not cause them.

Floater indicate that the vitreous humour, which is the jelly

occupying the back of the eyeball, has started to degenerate as part of the normal process that occurs in all eyes with time. During this degeneration, the vitreous jelly may pull on the retina, possibly leading to retinal holes, which could lead to retinal detachment. Floaters do not increase your risk of getting a retinal problem.

If you have had a thorough eye examination when the floaters were first detected and found to be normal, it is advisable to have a second eye examination around six to eight weeks after that. If the second check is again normal, it is not necessary to have another eye check-up.

I would then advise you on the signs and symptoms of retinal detachment, which includes seeing a dramatic increase in the number of floaters, seeing flashing lights



PHOTO: ISTOCK

in the eye or noticing any blockage of your visual fields.

If you experience any of these symptoms, please seek medical attention immediately. At night, or over the weekend, you can walk into the Accident and Emergency Department and there will be a doctor on call to review you to exclude retinal detachment.

Dr Chan Choi Mun, Senior Consultant, Medical Retina Department, Singapore National Eye Centre

WINNERS OF CONTEST 54

1. Boh Lesing
2. Raymond Chong
3. Carolyn Chow
4. Richard Emaung
5. Norashikin Ahmad Mahdi

Winners will be notified by phone or email.

Is psoriasis contagious?

My father-in-law was recently diagnosed with psoriasis. What is it, and will we catch it if we use the same hand towels?

Psoriasis is a common skin condition where skin cells multiply faster than normal, leading to a build-up of thick, silvery-white scales and red patches on the skin. The patches are often itchy.

The most common form of psoriasis is chronic plaque psoriasis, which can occur anywhere on the body, although the rash tends to appear on the scalp, elbows, knees and lower back. Those with moderate to severe psoriasis may see large areas of the body covered in a rash.

Psoriasis is not caused by infection and is not contagious, so you can't catch it from another person.

The exact cause of psoriasis is not known, but it is thought to be related to genetic and environmental factors. Those with a family history of the condition are more likely to develop psoriasis. It is also known to be triggered by infections, stress, alcohol, smoking or certain medications. It affects around 1 per cent of the population in Singapore. It can appear at any age and affects men and women equally.

Dr Yeo Yi Wei
Consultant, Department of Dermatology, SGH

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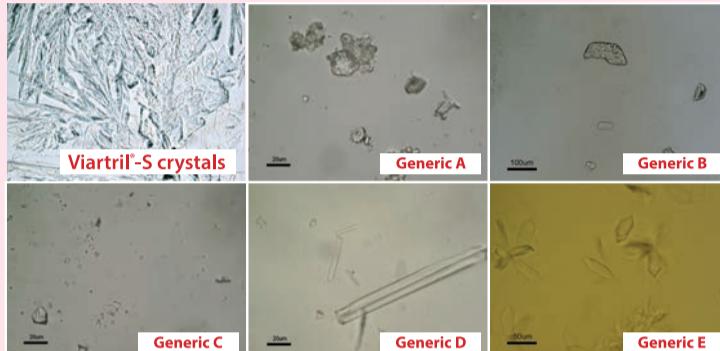
On 11 August 2017, Channel NewsAsia (CNA) reported, "Glucosamine supplements don't help knee or hip arthritis pain"

This is what we have always been saying.

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Quoted from a European guideline:

"The European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ESCEO) advocates the differentiation of prescription patented crystalline glucosamine sulphate from other glucosamine preparations."

O. Bruyere et al, Seminars in Arthritis and Rheumatism 2014

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1) The role of diet and exercise and of glucosamine sulfate in the prevention of knee osteoarthritis: Further results from the Prevention of knee Osteoarthritis in Overweight Females (PROOF) study. Seminars in Arthritis and Rheumatism, 2016.

- Brand Used: Viartril-S

2) An algorithm recommendation for the management of knee osteoarthritis in Europe and internationally: a report from a task force of the European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ESCEO). Seminars in Arthritis and Rheumatism, 2014.

- Brand Used: Viartril-S

3) Glucosamine therapy for treating osteoarthritis. Cochrane Database, 2009.

- Brand Used: Viartril-S

4) Total joint replacement after glucosamine sulphate treatment in knee osteoarthritis: results of a mean 8-year observation of patients from two previous 3-year, randomised, placebo-controlled trials. Osteoarthritis and Cartilage, 2008.

- Brand Used: Viartril-S

5) Glucosamine sulfate in the treatment of knee osteoarthritis symptoms: a randomized, double-blind, placebo-controlled study using acetaminophen as a side comparator. Arthritis & Rheumatology, 2007.

- Brand Used: Viartril-S

6) Glucosamine sulfate use and delay of progression of knee osteoarthritis: a 3-year, randomized, placebo-controlled, double-blind study. Archives of Internal Medicine, 2002.

- Brand Used: Viartril-S

7) Long-term effects of glucosamine sulphate on osteoarthritis progression: a randomised, placebo-controlled clinical trial. The Lancet, 2001.

- Brand Used: Viartril-S

Please consult your health professional for more clinical papers.

The Netherlands study* reported in CNA, analysed only 5 out of 21 eligible studies. The 5 studies which found glucosamine to be **INEFFECTIVE** are:

*Ref : <http://dx.doi.org/10.1136/annrheumdis-2017-211149>

1) Glucosamine and chondroitin for knee osteoarthritis: a double-blind randomised placebo-controlled clinical trial evaluating single and combination regimens. Annals of the Rheumatic Diseases, 2015.

- Brand Used: Generic Glucosamine

2) Clinical efficacy and safety of glucosamine, chondroitin sulphate, their combination, celecoxib or placebo taken to treat osteoarthritis of the knee: 2-year results from GAIT. Annals of the Rheumatic Diseases, 2010.

- Brand Used: Generic Glucosamine

3) Effect of glucosamine sulfate on hip osteoarthritis: a randomized trial. Annals of Internal Medicine, 2008.

- Brand Used: Generic Glucosamine

4) Glucosamine, chondroitin sulfate, and the two in combination for painful knee osteoarthritis. The New England Journal of Medicine, 2006.

- Brand Used: Generic Glucosamine

5) Effectiveness of glucosamine for symptoms of knee osteoarthritis: results from an internet-based randomized double-blind controlled trial. The American Journal of Medicine, 2004.

- Brand Used: Generic Glucosamine

A recent response to the Netherlands review quoted¹:

"Glucosamine products other than prescription* crystalline glucosamine sulfate are not effective in hip or knee OA pain and function."

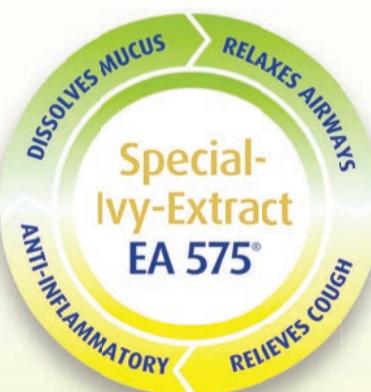
¹Unlike in Singapore, Viartril-S is a prescription patented crystalline glucosamine sulphate in some countries, including many European countries.

²Different glucosamine sulfate products generate different outcomes on osteoarthritis symptoms. Annals of the Rheumatic Diseases, 6 Sept 2017.

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