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## Collaborative effort in dental care

National Dental Centre Singapore partners dentists in the community to bring affordable and convenient dental care to patients

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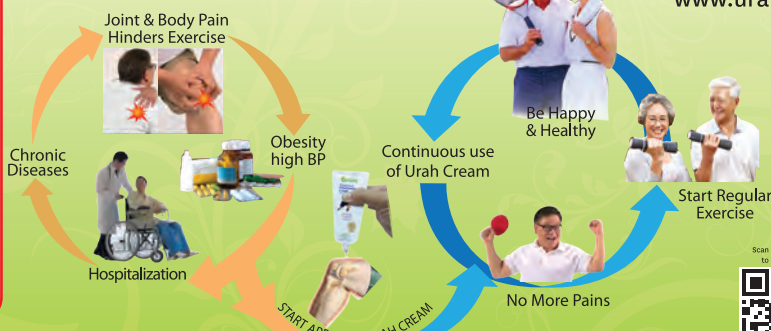


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# Counting down to 2021

The history of Singapore General Hospital (SGH) is the history of medicine in Singapore. The first general hospital for British troops was established in Singapore in 1819, but it was only in 1821 that it began serving the general populace — marking the true beginnings of SGH. As the countdown to SGH's bicentennial begins, *Singapore Health* will present snapshots showing changes in medicine and its various disciplines in the past 200 years.

## A late bloomer blossoms

The Department of Physiotherapy is the largest in Singapore, providing services across the wide spectrum of clinical specialties.

by Jennifer Liaw, Head, Physiotherapy Department, Singapore General Hospital

**P**hysiotherapy at Singapore General Hospital (SGH) is a late bloomer. For over 5,000 years, the Chinese had considered stretching and breathing exercises as vital to health. Meanwhile, Hippocrates (around 460-377 BC), widely accepted as the founder of Western medicine, strongly promoted regular physical activity.

SGH's Department of Physiotherapy, however, traces its history back a mere 70 odd years. Still, since it was established in 1947, the department has expanded, and matured by leaps and bounds.

In the 1940s, the discipline was already well established in countries such as the UK, Australia, and the US. The importance of physiotherapy services was underscored by rising demand locally — 958 cases in 1949 to 1,458 in 1952, of which most were poliomyelitis patients needing rehabilitation. Before the 1950s, many young polio patients were bedridden.

In 1960, Mrs Kathleen Chou was the first Asian to head SGH's Department of Physiotherapy. She was succeeded by Ms Lim Peck Ngoh in 1964. At the time, SGH physiotherapists provided physiotherapy services to other public hospitals, including Tan Tock Seng and Toa Payoh Hospital (which later merged with Changi Hospital to form the current Changi General Hospital).

In 1989, SGH was restructured and given greater autonomy to run many of its operations, including physiotherapy services. Between 1995 and 2005, the department increased its specialist services to include 24-hour access to services, such as cardiopulmonary, pulmonary, lymphoedema, and vestibular rehabilitation.

Professor Celia Tan was credited with much of the exponential growth when she was department head between 1995 and 2002.

From working mainly with orthopaedic surgeons in the early days, physiotherapists are



Photo: Vernon Wong

At its new home in Outram Community Hospital, the department boasts gyms and state-of-the-art equipment. The racing track (above) is not just for patients with sports-related issues but also for those with conditions like Parkinson's and stroke. A mirror alongside the track provides feedback for body posture and biomechanical alignment.

today invaluable partners in multidisciplinary teams across a wide spectrum of clinical specialties, including paediatrics, neurology, oncology, transplant, burns, rheumatology, emergency medicine, and geriatric medicine.

Physiotherapists continue to serve the community. Dr Dawn Tan, Senior Principal Physiotherapist, trains community partners in Parkinson's disease therapy so that more people are able to help caregivers and patients in the neighbourhood. Likewise, other physiotherapists volunteer to support community carers for other conditions like cancer and stroke. At public forums, physiotherapists educate, empower and motivate the public to stay fit and healthy. They also conduct fall risk screenings and provide advice.

In the late 1980s, Singapore faced a crucial shortage of physiotherapists, which led four government hospitals to close their outpatient physiotherapy services. SGH was one of two hospitals that retained their physiotherapy services but the department had the highest number of vacancies. Today, the department boasts a staff strength of over 130 physiotherapists and 40 support staff, making it the largest in the country.



Photo: SGH

In the 1960s, SGH's Department of Physiotherapy provided services to other public hospitals.

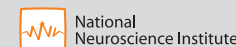
About 20 per cent of SGH's physiotherapists have post-graduate qualifications and are leaders in their respective specialties. Many teach in local and overseas tertiary institutions. Dr Pua Yong Hao, Senior Principal Physiotherapist, won the 2019 National Medical Research Council Transition Award, which highlights the department's commitment to improve clinical outcomes through research.

As the population ages, the department anticipates an increase in demand for therapy, and is looking to improve and optimise staff skills and work processes. Importantly, to attract and retain staff, it introduced a residency programme in 2013. And in 2015, a programme that lays out a clear career pathway to show how staff can advance and develop professionally — be it in clinical care, teaching, research, or management — was launched.

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# Collaborative effort in dental care

To meet rising demand while remaining accessible, the National Dental Centre Singapore is partnering dentists in the community to provide affordable and convenient dental care to patients.

by Annie Tan



**B**y 2030, one in four Singaporeans will be over 65 years of age, according to data from the Ministry of Health (MOH). With a booming ageing population due to increased life expectancy, there is rising demand for care for chronic dental conditions.

"Robust primary dental care support is important to ensure a strong and sustainable network where patients have easy access to affordable treatment across different healthcare settings. With an ageing population, close partnerships with primary

“Patients have found that the community dentists provide good services and are able to provide detailed explanations of their conditions. Their clinics are also closer to home, and hence more convenient.

**Dr Wu Siwen**  
Consultant, Department of Restorative Dentistry,  
and Head, Community Partnerships,  
National Dental Centre Singapore





care providers are more vital than ever,” said Dr Wu Siwen, Consultant, Department of Restorative Dentistry, and Head, Community Partnerships, National Dental Centre Singapore (NDCS).

### Resource allocation

NDCS’ Care Partnership Programme (CaPP) was launched as a collaborative partnership with community dentists to support the co-management and right-siting of dental cases.

Under this programme, NDCS patients with stable and low-risk dental conditions will have their care transited to General Dental Practitioners (GDPs) located within their community. These conditions include selected gum and root canal treatments, single crowns, and dentures.

This allows patients to seek treatment at GDPs conveniently, with assurance that a specialist has assessed their condition as stable. Specialist resources at NDCS can then focus on managing complex dental conditions.

Optimal care is thus ensured for every patient, explained Dr Wu.

Patients who are at higher risk of disease deterioration will continue to receive care from both NDCS and community care partners under CaPP’s Shared Care model. This includes patients who suffer from medical conditions and have other risk factors, such as diabetes and smoking respectively, which may cause them to be more susceptible to certain gum diseases.

Following visits with GDPs, these patients may be required to do follow-up consultations with NDCS specialists six months later to ensure careful assessment of recovery.

The CaPP reflects MOH’s vision of extending care of patients beyond the hospital to the community.

“As a national specialty centre, NDCS has to keep abreast of the changing needs of the population so that we can effectively serve our patients. Through this programme, we work closely with our community care partners and tap on available resources to ensure a continuum of care for our patients,” said Dr Wu.

### Benefits of right-siting

Patients can choose to visit their preferred dentist, or have NDCS match them with a dental partner located in their community.

There are multiple benefits in anchoring patients in their community. Keeping costs affordable is one tangible benefit, as treatment fees at participating GDP clinics are capped at a maximum amount for basic and intermediate dental care.

The convenience of receiving treatment closer to home is also important. “Patients have greater flexibility to visit their dentists after work and on weekends, without the hassle of travelling. Receiving long-term care for chronic dental

conditions from a dedicated GDP also ensures that patients are well taken care of by a professional most familiar with their dental and medical history. A close-knit dentist-patient relationship can be established,” Dr Wu said.

Implementing this shift to community dental care is not without its challenges. “Some patients feel that all their dental needs should be addressed at NDCS and are unsure of the quality of care they would receive at GDP clinics,” explained Dr Wu.

To address this, NDCS has been educating patients, facilitating smooth transitions through assisting with dental appointments, and working to build patients’ trust in GDPs.

It is also working closely with GDPs to effectively transit the care of patients. A framework has been developed to evaluate the care delivered and to monitor patient outcomes. Dentists are also required to complete a series of workshops and lectures to upgrade their skills and align themselves with NDCS’ mission of championing joint care for patients.

### Future of dental care

Since CaPP was launched in 2017, NDCS has successfully right-sited more than 600 patients to dentists within the community. The majority of patient feedback has been positive.

“Patients have found that the community dentists provide good services and are able to provide detailed explanations of their conditions. Their clinics are also closer to home, and hence more convenient,” Dr Wu said.

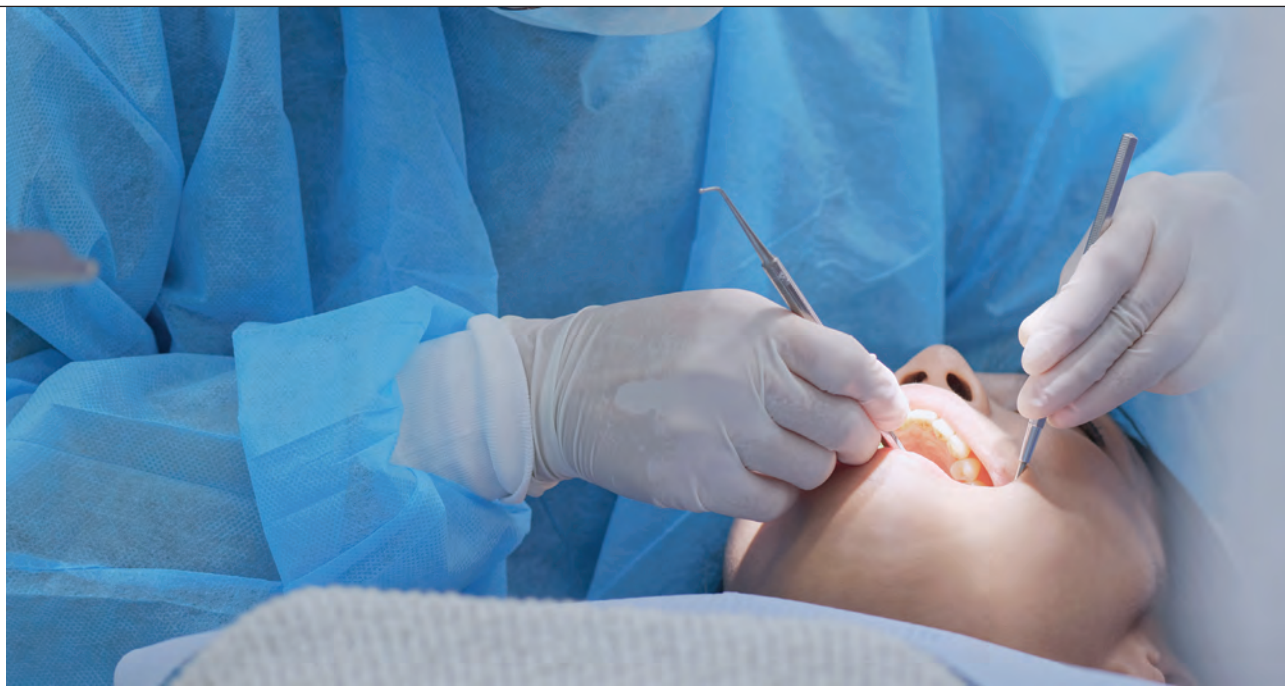
GDPs involved have also responded positively to the collaboration. “CaPP has allowed me to actively contribute to this national effort of improving dental care,” said Dr Hong Qixian, a GDP.

“Continual education by the specialist-led programme has also helped me align my skills to the expected standard of a public healthcare institution. I hope to see more cross-referral integrations in the future,” he added.

Such plans are already in the pipeline. NDCS intends to expand the programme to engage more dental partners and include other procedures, such as advanced root canal treatments.

“We hope to grow the current pool of 36 dental partners to 60 by 2022. Once the pool of dental partners is sizeable, they can even set up their own primary care network, which will enable a more seamless collaboration with NDCS,” said Dr Wu.

“Dental care is a responsibility that needs to be shared by every healthcare worker. We need to ensure that patients get the right care from the most suitable providers in the right setting and at the right time,” she said.



» Clinical Associate Professor Poon Choy Yoke, Director, NDCS; Dr Chng Chai Kiat, Chief Dental Officer, Ministry of Health; Clinical Associate Professor Teoh Khim Hean, Deputy Director (Clinical and Regional Health), NDCS, at the opening of the Care Transition Office at NDCS.





# Up and about hours after hip change

Enhanced recovery programme and surgical method allow some patients to undergo hip replacement as a day procedure.

by Sol E Solomon

Photos: Vernon Wong



Mr Lionel Liew (above with Physiotherapist Eleanor Chew) underwent an enhanced recovery programme that enabled him to be discharged within 23 hours of his hip replacement surgery.



Mr Liew (second from left, with Ms Chew, Dr Pang Hee Nee, and Advanced Practice Nurse Rajashulakshana Rajaram in January 2020) was able to start walking after his anaesthesia wore off.

Hours after Mr Lionel Liew underwent hip replacement surgery at Singapore General Hospital (SGH), he was able to get up by himself and start walking. The former national water polo player was discharged and could climb the stairs at home later the same day.

Usually, hip replacement patients need to recuperate in hospital for four to five days before discharge. The shortened recovery time for Mr Liew was possible because of a new enhanced recovery programme the hospital piloted in January 2019, and officially launched a year later.

"Same-day discharge after a total hip replacement may sound far-fetched as patients usually stay in bed for a few days after major surgery. We wanted patients to have the benefits of same-day discharge," said Dr Pang Hee Nee, Senior Consultant, Department of Orthopaedic Surgery, SGH, and programme lead.

Under the plan, patients attend a newly introduced Joint Replacement Class on the day they visit the Pre-Admission Centre to undergo pre-

operative tests. At the class, a multidisciplinary team gives them pre-surgery instructions, and teaches them pain management, wound care, diet and nutrition, and rehabilitation exercises. The team includes an orthopaedic-trained advanced practice nurse, physiotherapist, and occupational therapist.

Not all patients are suitable for the programme. They have to be generally fit, able to perform normal daily activities, and have good family support.

Patients undergo a minimally invasive surgical technique that avoids cutting into the muscles. The technique involves stretching the thigh muscles apart to get to the damaged hip joint. SGH started using this direct anterior approach in 2015.

Like Mr Liew, patients under the pilot programme were able to start walking once they felt well enough. "As soon as the anaesthesia wears off, patients are encouraged to get off the bed to walk. Doing so lowers their risk of possible post-surgery complications, such as blood clots, and patients can go home earlier with a smaller bill," said Dr Pang.

About 80 per cent of the 30 patients recruited for the pilot programme were discharged within 23 hours of being reviewed by the care team. Before they returned for follow-up review with the surgeon, they received a couple of home visits by physiotherapists and community nurses in the first two weeks to assess their recovery. Patients could also call a helpline.

"Having physiotherapists make home visits reassured patients that they continued to receive care after discharge. This makes them feel more confident going back home," said Dr Pang.

"A lot of patients are not confident about going out once they are home. For instance, they worry about lift doors closing as they enter," added Ms Eleanor Chew, Physiotherapist.

Going to patients' homes also gave physiotherapists a better sense

of the issues patients face at home and how they can overcome them.

"We can simulate the home environment in hospital, but it is in patients' homes that we can fully understand the issues they may face — if they are climbing the stairs safely, for example," Ms Chew said.

This type of post-surgery care, together with the advice he received from his physiotherapist and occupational therapist before surgery, prepared Mr Liew mentally for what was to come after his operation. "They were all very helpful in walking me through the process. They taught me exercises I needed to do after the surgery. I found the home therapy exercises very useful," he said.

An average of 300 patients undergo total hip replacement at SGH each year, and about half of them will benefit from the enhanced recovery programme.





Photo: Brain Tumour Society Singapore

» The Brain Tumour Society Singapore conducts monthly support group meetings and regularly organises public awareness events.

# Not just a support group

Brain Tumour Society Singapore's Melissa Lim dreams of pushing new frontiers in brain tumour care.

by Eveline Gan



Photo: Vernon Wong

» Brain tumour survivor Ms Melissa Lim's personal experience led her to assume leadership of the Brain Tumour Society Singapore.

Every success story starts with a dream. For the Brain Tumour Society Singapore (BTSS), it began with one woman's personal mission to bring hope to people and families struggling with brain tumours.

Current president Ms Melissa Lim's experience with brain tumours — first as a carer and later as a patient — had spurred her to provide an avenue for brain tumour patients and carers to support one another.

"My vision for BTSS is 'dare to dream'. We want to push the frontiers for new treatment options, and an equitable education for children with brain tumours, many of whom struggle with mainstream education," said Ms Lim.

BTSS, a finalist of the Singapore Health Inspirational Patient and Caregiver Awards 2020 (Patient Support Group Category), has undergone several changes in the last 20 years.

It was started in 2000 by Dr Tan Siok Bee, Deputy Director, Nursing Division, Singapore General Hospital (SGH), and her colleagues. In 2003, meetings were discontinued during the Severe Acute Respiratory Syndrome (SARS) outbreak, but resumed the following year as a National Neuroscience Institute (NNI) support group. It was discontinued again in 2010 before Ms Lim took up independent leadership of the group in 2012.

Having experienced the devastating disease twice, Ms Lim knows how it feels to be in despair.

Her own diagnosis in 2004 brought back memories of her late mother's long battle with an aggressive and lethal brain cancer called glioblastoma multiforme (GBM). Watching her mother's condition deteriorate was a painful and stressful experience, which intensified when she was put on palliative care.

Ms Lim, a consultant and adjunct lecturer, said: "At the point, I wished that I could speak to another family struggling with GBM."

Six years after her mother's death, Ms Lim experienced the same feeling of isolation after a 16-hour brain operation at SGH to remove a 3.5cm tumour. She suffered multiple post-surgery complications, including temporary paralysis on the right side of her face and slurred speech.

It was at the height of the SARS outbreak. Unaware of any local support group for brain tumours, Ms Lim did not know where or who to turn to for information or support.

"Recovery was tough," she said. "To keep my spirits up, I talked to the nurses. Stories of brain tumour patients who recovered gave me hope that I, too, could do it."

The mother of two has since recovered from her condition.

## Through the journey

In 2014, Ms Lim established BTSS as an official support platform for patients. BTSS formed a multidisciplinary medical advisory board that includes more than 10 clinicians from SGH, NNI, KK Women's and Children's Hospital, and other institutions to work with nurses in referring patients to BTSS.

"Our mission is to be with the patients and their families at every stage of the brain tumour journey. The support group is just one of the things we do at BTSS; we also

look into financial assistance and advocacy work," she said.

During the COVID-19 outbreak, BTSS continued to provide support to members via phone. Before the outbreak, BTSS provided monthly support group meetings and patient education talks at SGH, and financial help for those in need to defray costs of managing brain tumours.

The vibrant team at BTSS has organised several high-profile public awareness events, such as the Brainy Car Rally.

## Pushing boundaries

Ms Lim is a member of the SingHealth Patient Advocacy Network (SPAN). Comprising volunteer patients and caregivers, SPAN works closely with the healthcare team to share perspectives on matters relating to the delivery of care, such as patient safety, with the aim of improving patient experience and outcomes in Singapore.

Today, BTSS has over 300 members. In the last five years, BTSS has received a total of four inspirational awards for individual recipients.

Ms Lim said nomination to the Singapore Health Inspirational Patient and Caregiver Awards this year is testimony to the hard work that BTSS members have put in. "It's important to send the message that although we have or had brain tumours, we are still capable of doing meaningful work to make an impact," she said.

BTSS beneficiary Smyth Woo could not work due to his rare brain cancer, which left him unable to walk. BTSS helped him procure a motorised wheelchair. He is so grateful that he now makes jewellery to raise funds for BTSS programmes.

For more information on BTSS, visit [www.braintumoursociety.org.sg](http://www.braintumoursociety.org.sg)





» The upcoming SGH Elective Care Centre and National Dental Centre Singapore building will feature healthcare spaces that enhance work processes and safety, and promote healing.



» Green spaces in SingHealth institutions, such as this roof garden at Outram Community Hospital, create a calming and healing environment for patients.

# Design matters

Well-designed healthcare spaces are key to providing holistic experiences for staff and patients alike.

by Eveline Gan

Anyone who has had treatment at a hospital will be familiar with facilities such as the registration areas, treatment rooms, and inpatient wards.

While it is easy to overlook the design of these healthcare spaces, there is mounting evidence to show that it matters. Well-thought-out spaces improve work processes and safety, and research has shown that they can even promote healing.

"When planning and designing healthcare spaces, we bring in multi-domain stakeholders ranging from the management to doctors, nurses, and allied health professionals," said Ms Chua Kaixin, Senior Manager, Projects, SingHealth, who is currently involved in the new Singapore General Hospital (SGH) Elective Care Centre (ECC) and National Dental Centre Singapore (NDCS) building project.

"We also need to involve teams from operations, facilities management, pharmacy, those in charge of food, housekeeping, infection control, as well as our colleagues at the Office of Patient Experience." She added that the planning process has been ongoing for five years.



» Big windows that allow natural light through make the wards less claustrophobic and allow patients to tell day from night.

Slated to be ready in 2026, the upcoming SGH ECC and NDCS building is part of the SGH Campus Master Plan, with the ECC being the first component of the new SGH Complex. The new building will feature new facilities in elective surgical and dental care. When completed, the future SGH Campus aims to enhance patients' experience as they transit through the seamless and integrated continuum of care.

It is also important to consider patients' perspectives when designing a new space.

"Patients' healthcare experiences are largely driven by their clinical outcomes, interactions with staff, perceptions of care, and the design of the physical environment. Every touchpoint in a healthcare facility is an opportunity to create a positive experience. Incorporating their perspectives will help us make better connections, improve communication and collaboration, while driving efficiency and safety," said Adjunct Associate Professor Tracy Carol Ayre, SingHealth's Group Chief Nurse.

Even details like choosing the right building materials and finishes are important

considerations for infection control and to ensure a hygienic environment for patients. For example, easy-to-sanitise materials or those with antimicrobial properties are more appropriate than materials that can trap dust and germs.

"Our infection control department colleagues recommend against the use of carpets in clinical areas as they can trap germs and bacteria. This is why most of our patient care areas have vinyl flooring," Ms Chua explained.

## Evolving needs

Advances in technology as well as the changing needs and lifestyles of patients are shaping the way future healthcare spaces are designed.

At the new ECC, patients can expect to see an increased use of smart systems to enhance convenience.

Ms Chua explained that the use of automated processes reduces waiting time and crowds at waiting areas. It also creates space for more comfortable lounge seating at the ECC's waiting rooms.

In fact, some of these smart features have already been implemented in SingHealth's new healthcare premises,



» The patient's perspective is taken into consideration in the process of designing healthcare facilities.

including the newly opened Outram Community Hospital and Sengkang Community Hospital.

Even as more technological features are introduced, the team is also mindful of the need to create a calming and healing environment for patients.

At the new NDCS, for instance, the waiting area will feature a roof garden, where patients can enjoy some greenery while waiting for their appointments.

"Having green spaces, fresh air, and natural ventilation can help promote healing. Bearing in mind space constraints on the SGH Campus, creativity is needed to incorporate green spaces. One way is to have pockets of gardens on the rooftops rather than around the building," said Mr John Soon, Senior Project Manager, Projects, SingHealth.

"In the wards, we make use of natural light to create a warmer and more inviting space. It also aids the recovery process as patients are able to distinguish between day and night."

Mr Soon explained that there is one more important consideration when planning healthcare infrastructure — the need to keep spaces "open and flexible" so that they can be easily converted and reconfigured in times of a health emergency like a pandemic.

He added that while design considerations may vary across different facilities, a key principle remains: the spaces are designed with the end-users in mind.

"This is our way of ensuring that truly, patients are at the heart of all we do," Mr Soon said.





»»» The length of telomeres (the end bits of chromosomes) shortens with age, and this process can be accelerated by diseases and other external factors.

»»» Dr Lim Weng Khong says that lack of sleep shortens the period when cells undergo restorative processes, which can be damaging to health and cause premature ageing.

# Time to get serious about sleep

The lack of shut-eye time may be linked to premature ageing.

by Thava Rani

Singaporeans took it in their stride when a study in 2019 found them to be among the world's worst sleepers. After all, apart from being a bit tired, what could be so bad about losing some shut-eye?

Plenty, according to researchers from SingHealth Duke-NUS Institute of Precision Medicine (PRISM) and the National Heart Centre Singapore (NHCS).

In a joint study, where participants wore Fitbit trackers, a form of wearable technology (see box), it was found that people who habitually get insufficient sleep tend to have shorter telomeres, a marker of premature ageing. Lack of sleep was also associated with an increased risk of cardiovascular disease.

"The general belief is that a lot of restorative processes take place during sleep. Shortening that period means the cells have less time for the process. Over time, this can potentially be detrimental to health," said one of the study's authors, Dr Lim Weng Khong, Chief Information Officer, PRISM.

## Biological age affected

The researchers found that Singaporeans slept, on average, only 6 hours 28 minutes each night, far less than the recommended seven to nine hours. More importantly, those who slept less than five hours had considerably shorter telomeres.

Telomeres are the end bits of chromosomes. Each time cells divide, their telomeres get shorter.

Using whole genome sequencing, researchers were able to derive the telomere length of each study volunteer.

"Cells divide all the time as we go about our daily lives, so telomere shortening is a normal and continuous process. In general, telomere length is correlated with chronological age, or age as defined by the year of birth," said Dr Lim, who is also an assistant professor with the Cancer and Stem Cell Biology Programme at Duke-NUS Medical School.

If there is no disease, telomeres generally do not shorten so fast. But they still shorten as we age. So, if you compare the telomere of a 20-year-old person and that of

an 80-year-old person, there will be substantial differences.

Certain diseases or external factors can speed up the process and shorten telomeres prematurely.

"For instance, dyskeratosis congenita, a rare genetic condition, is associated with short telomeres and bone marrow failure. Other stresses to the body, such as environmental pollution or inadequate sleep, can also accelerate telomere shortening," he said.



## Using Fitbit trackers in the study

In their study, the research team did not use the usual questionnaires to get their information but Fitbit trackers, which are fitness trackers worn on the wrists. More than 480 healthy volunteers wore them for a week, giving researchers an insight into their sleep patterns. Dr Lim said past studies were done using questionnaires, but he believes they are not as reliable as wearable technology.

"Generally, people give imprecise answers on questionnaires. Those who sleep a lot or very little find it easier to estimate their sleep hours. Those who get six to nine hours tend to just report a number that is close to the recommended number — seven hours, for instance. But with wearables, we get more precise answers down to the minute."

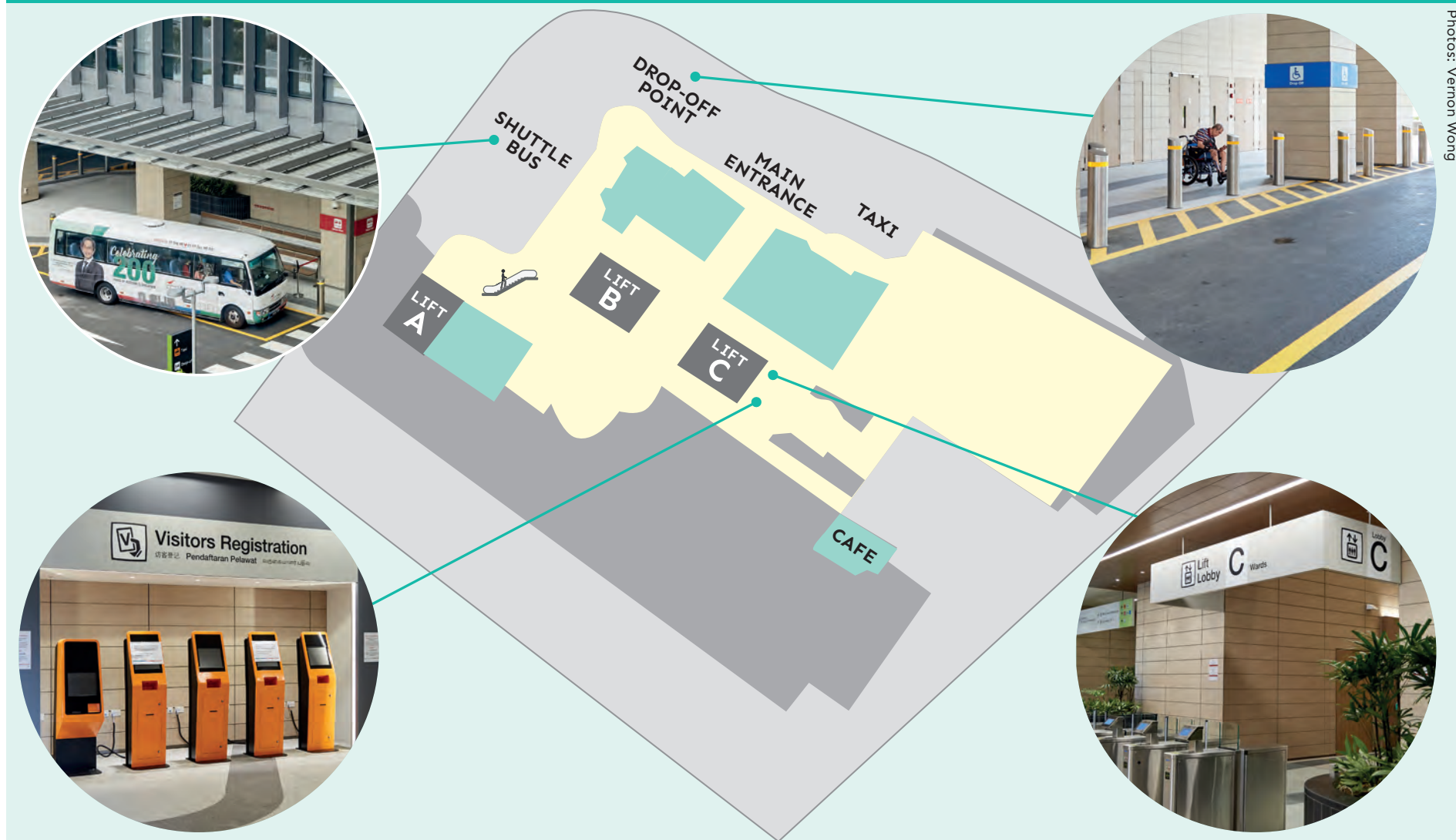
He said that with most people owning some form of fitness tracking device, research using consumer-grade wearables is likely to be the future of biomedical studies.





# Getting around Outram Community Hospital

## LEVEL 1



## LEVEL 2

- Function Room
- Food Court
- Patient Service Centre
- HCA Hospice Care

## LEVEL 3

- SGH Specialist Outpatient Clinics (SOCs):
  - Obesity Centre
  - Sleep Centre
  - Integrated Memory Centre
  - Eating Disorders Unit
  - Rehabilitation Medicine
- Renal Dialysis Centre
- Staff Clinic

## LEVEL 4

- SGH Rehabilitation Centre:
  - Physiotherapy
  - Occupational Therapy
  - Speech Therapy
  - Music & Creative Therapy
  - Rehab Diagnostic
- Orthopaedic Sports & Joint Centre (OSJC)



## LEVELS 7-12

Wards





# The voices of patients

Patients today are empowered to advocate for change and reshape healthcare.

by Annie Tan

**A**s a rectal and testicular cancer survivor, Mr Ellil Mathiyan Lakshmanan vividly remembers how he struggled with wearing a bag over a permanent stoma (for passing stool). Breast cancer survivor Ms Ai Ling Sim-Devadas, too, recalls how she had a difficult time coming to terms with her illness.

Motivated by their own challenges and journeys of recovery, both cancer survivors helm the SingHealth Patient Advocacy Network (SPAN) today. Together with 35 other members, they represent the voices of patients and help shape the healthcare they receive.

## Reshaping healthcare

SPAN was established in March 2017 to empower patients as advocates for change in healthcare — a notable move away from the ‘doctor knows best’ model. With each of its members either a patient or caregiver, SPAN is deeply involved in various focus group discussions and workgroup committees to contribute to hospital campus planning, building design, new services, and the feasibility of new healthcare mobile applications.

Last year, one of its members, Ms Khoo Sork Hoon, who is a breast cancer survivor, sat on the judging panel of the SingHealth Hackathon event, where she weighed in on the medical solutions brainstormed by the SingHealth and Duke-NUS community. Several members, such as Ms Melissa Lim, a brain

tumour survivor; Ms Jessie Tan, a caregiver to her son with cerebral palsy affecting all four limbs; and Ms Carol Lim, a breast cancer survivor, also conducted talks, and shared ideas and experiences with healthcare staff and patients via various platforms.

“As the healthcare landscape evolves, there is an increased emphasis on the holistic patient experience, and a greater need to harness the patient’s voice in the design of healthcare systems and processes to improve care delivery,” said Professor Tan Kok Hian, Group Director and Senior Associate Dean, SingHealth Duke-NUS, Institute for Patient Safety & Quality (IPSQ) and co-advisor of SPAN.

One important reason for involving patients is that they are uniquely able to see challenges and possible solutions that may not be immediately apparent to healthcare professionals. Their ideas are based on first-hand experiences, and have the power to improve the care and recovery journey for others.

For instance, SPAN spearheaded a meaningful initiative to introduce a Plain English Glossary that simplifies medical terms and jargon. A hundred and fifty commonly used medical-related terms were collated from patients, caregivers and staff, and simplified for the layman’s understanding, so as to help healthcare workers better communicate with patients and caregivers. Mr Chew Kim Soon, a caregiver to his elderly mother, was one of the key members who led this initiative. The Glossary has since been shared with more than 1,200 nurses and patient care

ambassadors through myriad platforms, such as during nursing orientations and in-service sessions.

## Partners in care

Being a patient advocate is not without challenges. “One of the key challenges is communicating the patient’s perspective in a constructive and effective manner so that healthcare staff can better understand their views and suggestions,” said Prof Tan.

To help members boost trust and collaboration with healthcare professionals, SPAN developed a half-day training course known as the Patient Advocate Communications Training (PACT) to empower them to be effective communicators and negotiators.

When patients and caregivers become equal partners-in-care, the whole healthcare community benefits immensely. This is especially so in today’s healthcare landscape, where patients are generally well informed as they have access to a wide range of information on diseases and the treatment options available.

“Patients and caregivers can share experiences, and exchange tips and ideas with others through support groups. They are not just passive recipients of care, but can be active partners in the care process and contribute in the healthcare decisions that affect them,” said Prof Tan.

SPAN aims to build a culture where empowered patients are at the heart of quality healthcare. This culture will have a positive impact particularly in Asia, where patient advocacy is less common, he added.



»»» A forum discussion with a panel comprising of the SPAN Co-Chairs and Ms Khoo Sork Hoon (second from right), a breast cancer survivor.



»»» SPAN empowers patients and caregivers to become active partners in the care process and contribute in different areas of healthcare that affect them.



»»» SPAN members learned how to better engage with healthcare professionals during the Patient Advocate Communications Training course.



# Pillar of support

When used the right way, walking aids enhance mobility and reduce the risk of falls.

by Annie Tan



**M**any elderly suffer from lower limb weakness, injury, as well as difficulty in balancing, and these may affect their mobility. For such patients, walking aids can make an important difference in enhancing mobility and helping them retain their independence.

At Sengkang Community Hospital (SKCH), which is managed under SingHealth Community Hospitals (SCH), approximately 70 per cent of the patients who are aged 60 and above use some form of walking aid, said Ms Chitra Chandran, Senior Physiotherapist, SKCH. Hip fractures and elective knee replacements are two of the common reasons why.

Seniors, however, are not the only ones who require walking aids. Children and young adults with ankle sprains and lower limb fractures may need them, too.

"Walking aids provide additional support through the hands and help with balance," said Ms Chandran. When used properly, walking aids can reduce the risk of falls.

## Professional help

The lack of balance while walking and completing daily tasks may be a telltale sign that patients require walking aids. In such cases, they should consult medical professionals for advice rather than simply buying one off the shelf.

"Elderly persons in fairly good health should have sufficient strength to move around unaided, even if they require more rest. But if they find themselves getting weaker, there could be an underlying medical condition," said Ms Chandran.

"For example, a stroke may result in sudden single-sided weakness, and a decrease in blood pressure may cause dizziness. A medical professional will do a thorough assessment to find out the root cause before

recommending a suitable walking aid based on the patient's requirements," she added.

With the wide variety of walking aids available, physiotherapists will recommend the most suitable option to meet each patient's needs. For instance, rollators (rolling walkers) and walking frames may be chunkier, but they provide more support than quad sticks, walking sticks, and crutches.

The physiotherapist will also adjust the walking aid to suit the patient's height. "If the walking aid is too high, the user may hike his shoulder, which can cause shoulder strain. If it is too low, the need to bend his body forward may result in back pain," Ms Chandran explained.

## Safety techniques

Physiotherapists also provide guidance on safe use. For instance, on level ground, patients should first move the walking aid forward, and step ahead with their weaker leg, followed by the stronger leg to ensure there is sufficient support.

The same applies when going down the stairs. The weaker leg should be lowered first so that the stronger leg can support the weight of the body going down. However, the sequence changes for climbing stairs — users must put their stronger leg forward first so that they have enough strength to propel themselves upward.

When climbing stairs with a broad-based quad stick, the entire base of the quad stick must fit onto the step to ensure there is adequate support when users lean forward. For adults with a smaller build, when they cross a kerb with a walking frame, they should put the frame halfway across, move closer, then put the frame over the entire kerb before crossing over. If they try to put the entire frame across immediately, they may end up losing their balance.

Training sessions are useful for physiotherapists to assess patients' ability to coordinate movement with a walking aid. "For patients with cognitive impairment or learning disabilities, walking aids may increase their risk of falling and are not recommended," Ms Chandran said.

» Walking aids provide additional support through the hands and help with balance, said SKCH Senior Physiotherapist Chitra Chandran.



## Types of walking aids



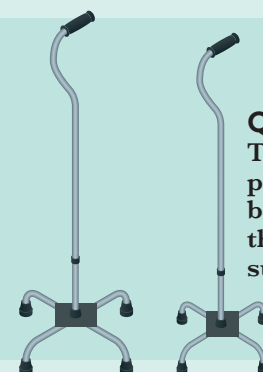
### Walking frame

With a larger base of support, this is suitable for patients with lower-limb weakness and balance issues. Patients will require upper-limb strength to lift the walking frame.



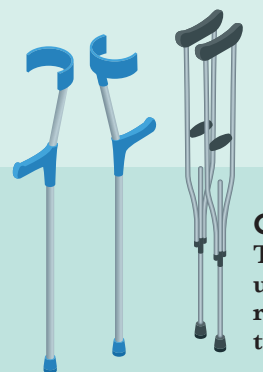
### Rollator

Though similar to a walking frame, this has two wheels in front. Patients with both upper- and lower-limb weakness can simply push it forward instead of lifting it.



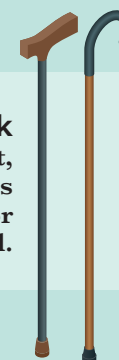
### Quad stick

This one-handed walking aid is suitable for patients with relatively more strength and balance, or who are only able to use one of their hands. A broad-based option offers more support than a narrow-based one.



### Crutches

These transfer the body weight to the upper body. Since the use of crutches requires more sequencing and balance, they are mainly used by younger patients.



### Walking stick

With just a single point of support, this provides less support but is easier to manoeuvre. It is suitable for patients who can walk fairly well.



# Pandemic? No sweat

For more than 50 years, Senior Medical Laboratory Technologist Mr Senwan Jamal has worked tirelessly to help doctors make accurate diagnoses and save lives.

by Annie Tan

**M**ajor industrial accident. Hotel collapse. Virus epidemic.

Singapore General Hospital (SGH) Senior Medical Laboratory Technologist, Mr Senwan Jamal, has pretty much seen it all. So, as far as he is concerned, working amid the recent COVID-19 pandemic was business as usual.

The 67-year-old works in SGH's Department of Anatomical Pathology, Division of Pathology, preparing human tissue samples for testing and analysis by pathologists. Much of his working life has been uneventful, but major incidents like the 1978 Greek tanker *Spyros* explosion and the Hotel New World collapse in 1986 have left an indelible mark on him.

In those early days, forensics came under the pathology department's responsibilities. The lab staff worked hand in hand with the pathologists. As pathologists performed post-mortems, the lab staff stood by and recorded their findings. When the *Spyros* explosion occurred, they had to identify bodies, diagnose the cause of death, and release the information to the families, Mr Senwan said.

"We were called back to work — the men to the mortuary; the ladies back in the lab. Because of the scale of the disaster, there was not enough space in the mortuary. You could see bodies lying on the floor, and all the freezers were full. Families surrounded the mortuary, waiting for their loved ones. Some of them were crying. We worked non-stop for two to three days, even eating our meals at the mortuary," he added.

It was no different with the Hotel New World collapse. "The bodies came in, one by one, one hour, three hours, the next day," he said, adding that the team had to improvise by renting container freezers to hold the bodies.



Mr Senwan Jamal prepares tissue samples for diagnosis in the lab. Preparation takes several steps that include fixing, staining, cutting, and sectioning.

Photos: Vernon Wong

"Even the 2003 Severe Acute Respiratory Syndrome (SARS) epidemic was quite okay for us. We kept to our standard operating procedures (SOPs), wore N95 masks, goggles, gloves, T-shirts, and track pants. I don't think we were extremely worried about getting the disease," he said.

## Lifelong passion

It almost seems like fate that Mr Senwan should work in SGH. He passed the hospital daily in his teens, and often flirted with the thought that he might some day work at the hospital. When he left school, Singapore had just separated from Malaysia to become a sovereign state.

"I saw an advertisement about this job. This was my first choice because I've always loved biology and health science," said Mr Senwan, who has been in his job for over 50 years.

When he received the SGH 50 Years Long Service Award in 2019, he said his children were very proud of him, even though they had not realised he had worked at SGH for so long. "When I went on to the stage to receive the award, it was a proud moment for my family and me," he added.

From infectious diseases to national tragedies, Mr Senwan took the many challenges that came his way in his stride. However, it is regular testing work that gives him the most satisfaction.

"Different patients have different tissue. You have to think about how to handle it, especially problematic tissue that is very

tiny, for example. You must take pride and do the testing work properly," he said.

Although he is already at retirement age, Mr Senwan believes in lifelong learning. "SOPs change, and even at my age,

I keep abreast of the changes, such as the use of computers and information systems."

"Healthcare is dynamic. You can learn a lot and help patients recover better. It is very meaningful," said Mr Senwan.

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»»» Senior Principal Clinical Pharmacist Lim Teong Guan runs SGH's Rheumatology Monitoring and Inflammatory Bowel Disease clinics, where he performs duties similar to a doctor's.



# Licensed to prescribe

One of the first pharmacists to be licensed to prescribe medications for patients, Mr Lim Teong Guan had to first overcome some personal boogies.

by Sol E Solomon

**I**t was a good thing that pride and fear did not stand in Singapore General Hospital (SGH) pharmacist Mr Lim Teong Guan's way for long.

Otherwise, he would not have been among the first pharmacists in Singapore to be able to prescribe medicine for patients. Pharmacists can — and do — suggest changes in patients' prescriptions, but attending doctors have to review and approve their recommendations. Only pharmacists who have undergone and passed the Ministry of Health's (MOH) collaborative prescribing programme introduced in 2018 can prescribe medications to patients independently.

The MOH programme involved a day each week of teaching, which included case-based discussions, lectures, clinical simulations, and hands-on practice. Participants also had to accumulate 80 hours of clinical practice before being allowed to

take the final examination. While SGH allowed the pharmacists time off to attend the weekly lessons, the 14-week programme was still very intense, said Mr Lim, Senior Principal Clinical Pharmacist.

"Then there was the matter of pride. After 18 years of practice, it would be very embarrassing if I failed to pass. No face!" Mr Lim said.

He initially waited "to see who would jump into the sea first and swim". After further thought, he decided that "as the pharmacist in charge of outpatient clinical service, I felt I had to take this leap and lead by example. I cannot ask my team to swim without me swimming first".

## Collaborative care

He goes on ward rounds as part of a multidisciplinary team, and runs the Rheumatology Monitoring (RM) and Inflammatory Bowel Disease clinics. At these clinics, he functions pretty much like a doctor: he takes patients' medical history, performs physical examination, discusses treatment plans, orders investigations, and prescribes medications.

During the COVID-19 crisis, the RM clinic adopted teleconsultation to minimise the length of each patient's hospital visit. Patients just need to have their blood tests done at SGH or SingHealth Polyclinics, then the collaborative pharmacist reviewed the results with the patients over the phone, followed by prescription and arrangement of medication delivery.

Running these clinics means doctors can focus their attention on patients with more complex conditions. Patients, too, benefit as clinics are less crowded so they are seen faster.

"For our healthcare system as a whole, collaborative prescribing practice is an efficient way of utilising scarce healthcare resources. It enables Singapore to set the standard of practice for regional countries to follow," said Mr Lim.

Mr Lim and other pharmacists who underwent the course have become more confident in identifying symptoms and making diagnoses. Although he is busier than before — he also has administrative duties to attend to — he has learnt to prioritise and the best ways to work with his teams.

"Patient care is the main reason why I chose to practise as a hospital clinical pharmacist. I feel rewarded when patients' conditions improve," he said.

While he has learned that some ideas may seem at odds with regular practice, the number of licensed collaborative pharmacists has shown that "healthcare practice can only advance with innovative ideas".

Mr Lim has come a long way from the young town boy who loved biology and chemistry, and who chose pharmacy because he was able to get a study loan and not burden his parents. But he is still the filial son — and now also loving husband and father — who eats dinner with his parents and family every night. They do something for fun on weekends, and go on holiday every year or two.

As the pharmacist in charge of outpatient clinical service, I felt I had to take this leap and lead by example. I cannot ask my team to swim without me swimming first.

**Lim Teong Guan**  
Senior Principal Clinical Pharmacist,  
Singapore General Hospital



## You may have psoriasis if you have...

- Itchy raised pink or red rashes with thick silvery-white scales, most commonly on the scalp, elbows, knees, and lower back
- Nails that thicken, develop pinprick holes, and change colour or shape
- $\frac{1}{3}$  of patients experience painful and swollen joints (psoriatic arthritis)

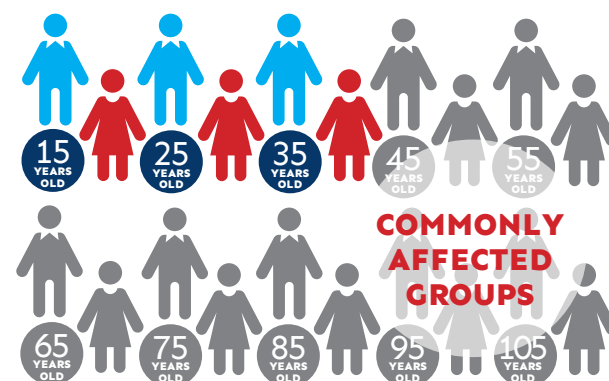


## If you are prone to psoriasis, be wary of...

- Infections, such as flu, lung, or urinary infections
- Physical and emotional stress
- Scratches, cuts, sunburn, irritation from strong soaps and detergents, and other skin injuries
- Drinking alcohol
- Smoking
- Medication, such as certain blood pressure medications
- Hormonal changes
- Climate changes

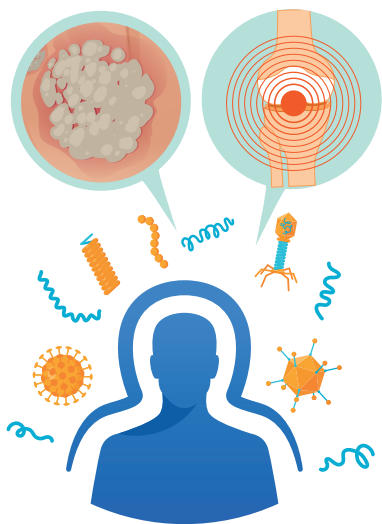
## How common is it?

- Affects about 1% of Singapore's population
- Affects both men and women equally
- Tends to affect those between 15 and 35 years of age, although it can occur at any age
- More common in Indians than in other races



## What happens when you have psoriasis?

The body's immune system protects against infections. But in psoriasis, the immune system attacks its own skin cells and joints. Skin cells multiply faster than normal, leaving the skin with thick scales and red rash.



# Psoriasis: causes, triggers, symptoms, and more

Information provided by  
**Dr Kirsten Yeo Yi Wei**  
Consultant  
Department of Dermatology  
Singapore General Hospital

## Getting better

- Creams, ointments, or lotions
- Phototherapy, or the use of ultraviolet light 2-3 times a week for a few months
- Oral medication, including immunosuppressants or vitamin A derivatives
- Biologic agents (injectable drugs that target certain immune signals in the body)



## In severe cases

Patients with moderate to severe psoriasis have a two-fold increased risk of developing metabolic syndrome, and conditions like diabetes, high blood pressure, high cholesterol, obesity, heart attack, and stroke.



## What causes it?

- The exact cause is unknown, but it may be due to genetic and environmental factors
- Those with a family history of psoriasis are more likely to develop it





# Stretching into the silver years

Simple stretching exercises can improve seniors' flexibility, mobility, and general well-being.

by Annie Tan

**L**osing joint and muscle flexibility is a change that comes with ageing. Moreover, as people grow older, they also tend to become less physically active.

"Flexibility is important for the elderly because it [is closely linked] to strength, balance, and movement," said Ms Goh Shu Kin, Physiotherapist, Physiotherapy Department, Singapore General Hospital (SGH).

When muscles and joints lack the necessary range of motions to counteract imbalance, the risk of a fall increases. The good news: just

five to 10 minutes of daily stretching exercises can help improve flexibility and reduce the chance of falls. It also alleviates chronic aches.

"Our body is meant to move. So when it remains in any position for a long time, the muscles, bones, and joints will get uncomfortable. Stretching involves active movement to consciously bring the person back into a more comfortable position and reduce slouching," said Ms Goh.

For those with arthritis, exercise can ease joint stiffness and discomfort by improving the joint's range of motions.

Research shows that exercise in general reduces the risk of cardiovascular disease, cancer, lung diseases, diabetes, and dementia — conditions associated with ageing. Exercise also improves mental agility and emotional health.

"The majority of [my] patients do not meet the World Health Organization's (WHO) guideline of doing 150 minutes of moderate-intensity exercise each week. They are concerned about the risk of injury when exercising but tend to overlook the health benefits," she noted.

Two simple rules of thumb to avoid injury is proper pacing and breathing. Seniors should understand their health condition and avoid over-exertion. They should also avoid holding their breath while exercising, as this may result in a drastic change in blood pressure and cause dizziness, among other symptoms.

Ms Goh recommends six safe stretching exercises for the elderly, and also emphasises the importance of complementing them with other strengthening, balance training, and coordination exercises to meet WHO's recommendation.

## Chair stretches

Repeat each of these exercises five times, holding each stretch for 10 to 30 seconds. These exercises help keep your neck, shoulders, back, trunk, knees, and lower limb flexible, and reduce aches.

### Side neck stretch

Hold onto the side of a heavy chair with your right hand, and use your left hand to tilt your head towards your left shoulder till you feel a stretch along the side of your neck. Change position and do the same on the other side of your body. This exercise helps reduce neck ache, especially from the prolonged use of mobile devices.



### Vertical neck stretch

Tilt your head back and look up. Then, tilt your chin and look down. If you need more support, hold your hands behind your neck. This exercise also helps alleviate neck pain.



### Back stretch

Bring your palms together, interlace your fingers, and stretch your arms upwards. This stretches your shoulders and back, and extends your spine, counteracting a slouching position.



### Back rotation

Sit on a heavy chair with a slightly lower backrest reaching just below your shoulder blade, turn your body to one side and hug the backrest. This back stretch keeps the trunk flexible.



### Knee flex

Sit on a firm bed or sofa. Roll up a large towel, wrap it around your feet and hold both ends. Alternatively, use an exercise band. Use it to pull your feet and knee towards you till you feel a stretch. Then, straighten out your leg. This exercise improves the knee joint's movement range, which is important for sitting, standing, climbing stairs, and getting in and out of vehicles.



### Back leg stretch

Sit on a firm bed or sofa. Roll up a large towel (or use an exercise band), wrap it around your feet and hold both ends. Keep your body upright, straighten your knee, and flex your toes towards you. Use your towel to pull your toes a little closer to your body to increase the stretch to your calf muscles and hamstrings. This exercise improves lower limb function.





»» The Health Wellness Programme (ASCAT) team from Changi General Hospital has published a book on burnout prevention.

# Take care

Caregivers must care for themselves or risk suffering a burnout.

by Eveline Gan



**B**eing a caregiver can be rewarding, but also challenging and frustrating. No matter how resilient you are, or how much you love the person you are caring for, round-the-clock caregiving can be physically, emotionally, and mentally draining. Financial woes can compound the stress.

Without enough support, this state of chronic stress can lead to burnout. The term “burnout” was first coined by American psychologist Dr Herbert J. Freudenberger in 1974, when he saw the phenomenon in volunteers

working in free community clinics.

It is now recognised as a condition that can affect anyone, from caregivers and healthcare professionals to corporate workers.

In severe cases, people suffering from burnout can no longer function effectively in their personal and professional lives. Prolonged stress also increases the risk of developing mental health conditions, such as depression and anxiety.

Burnout can also wreak havoc on your physical health, increase the risk of developing cardiovascular, musculoskeletal, and cutaneous (skin) diseases, as well as allergies and conditions affecting the immune system.

But burnout does not happen out of the blue. The earlier the telltale signs are recognised, the better equipped you will be to handle and manage your stress levels to avoid burnout.

## Signs of a burnout

If you are experiencing symptoms of burnout, take a step back and assess the amount of stress you are facing. Seek professional help immediately if you have violent thoughts, or have been violent to yourself or others.

### Signs of physical and emotional exhaustion:

- Chronic fatigue
- Insomnia
- Forgetfulness; lack of focus and concentration
- Chest pain, heart palpitations, shortness of breath, gastrointestinal pain, dizziness and/or headaches
- Increased frequency of illness
- Loss of appetite
- Anxiety

- Depression, which can lead to suicidal thoughts
- Anger

### Cynicism and detachment:

- Lack of interest in activities and things you used to enjoy
- Pessimistic thoughts and feelings
- Social isolation
- Feeling of being disconnected

### Ineffectiveness and lack of accomplishment:

- Feelings of apathy and hopelessness
- Lack of productivity and poor performance, even when you put in long hours

## Self-care practices

Caring for your own physical and psychological well-being while caring for others is important. Healthy self-care practices not only improve your overall well-being, but also help build resilience. Here are some tips:

- Look after your physical health. Have healthy and regular meals, enough sleep, regular exercise and check-ups, and say ‘no’ to unhealthy habits, such as binge drinking.
- Take time out for activities that you enjoy, such as gardening, baking, or meeting friends. You can also join or build a caregiving support team, sign up for respite care programmes, or enrol the person you are caring for in day care programmes.
- Accept and celebrate the person you are. Loving yourself does not mean you are being narcissistic, arrogant, or conceited.
- Tune in to your needs and wants by paying attention to your thoughts, emotions, and psychological health.



## Strategies to prevent burnout

- **Focus on the good**  
Train your mind to focus on good things. Do a quick reflection before bedtime every night by jotting down three things that went well. It can be simple moments like receiving a warm smile from a stranger.
- **Savour positive experiences**  
Share good news, feelings, and moments with others. Practise mindfulness by using your five senses to experience day-to-day happenings.
- **Express gratitude**  
Be more aware of good things that happen, and take time to express thanks to others. If you cannot do this verbally, write a letter.
- **Be kind to yourself**  
Rather than criticise or beat yourself up, treat yourself with kindness. Forgive your mistakes, recognise your challenges, be patient during moments of pain, and do deep breathing exercises.



# Purple Sweet Potato Mooncake (3 servings)



Preparation  
time: **90 minutes**



Cooking  
time: **30 minutes**



by Mr Javier Won  
Dietitian,  
Sengkang  
Community Hospital



## Ingredients

### Filling

- 320g purple sweet potato (diced)
- 30g sugar
- 25g wheat flour
- 5g vegetable oil

### Dough

- 130g low-gluten cake flour
- 85g inverted sugar syrup
- 30g vegetable oil
- 2g lye water
- Egg wash (20g beaten egg yolk with 10g egg white)

## Method

### Dough

1. Add inverted syrup into lye water and mix well. Then add vegetable oil and mix thoroughly.
2. Sieve the cake flour and add into the mixture to form dough.
3. Cover the dough with cling wrap and refrigerate for an hour.

### Filling

1. Dice and steam the sweet potato for 10-15 minutes.
2. Blend the steamed sweet potato. Add in a small amount of water to soften the mixture, if required.
3. After the mixture is well blended, heat it in a pan over low heat. Add in sugar and stir-fry until the sugar dissolves.
4. Add vegetable oil and stir-fry.
5. Add sieved wheat flour. Continue to stir-fry and mix well.

### Combining dough and filling

1. Divide the dough and filling into 3 equal portions.
2. Roll the filling into a ball.
3. To assemble, press and flatten the dough on your palm. Add the ball-shaped filling on the flattened dough. Gather the edges of dough and wrap it over the filling.
4. Dust the mooncake mould with

flour to make removing mooncake easier later. Dust a small amount of flour on the dough too.

5. Put the mooncake into the mould and gently press it to shape. Remove the mooncake from the mould. Repeat until you have all the shaped mooncakes.
6. Pre-heat the oven to 190°C.
7. Bake for 10 minutes until the dough starts to turn darker in colour. Remove the mooncakes from the oven for 5 minutes to cool, and then add egg wash.
8. Bake the mooncakes for another 10 minutes until they turn golden brown.
9. As freshly baked mooncakes are generally hard and easily broken,

## DID YOU KNOW?

This mooncake is healthier than commercially sold ones as it contains no artificial flavourings and colouring, and has less sugar and saturated fat. Purple sweet potatoes are a good source of carbohydrates, potassium, and fibre. The vibrant colour comes from anthocyanins, which are a type of antioxidants.

the best way to enjoy them is to store them in an airtight container for 1 to 3 days to allow them to moisten before consuming.



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## Advice for child's eczema



**My six-month-old boy has eczema on his neck and face. I tried using silver gel, coconut oil, and creams. But he still gets flare-ups on and off, causing discomfort and redness all over the region. What can I do to help him with this condition?**



It is common for children to have eczema rashes on the neck and face during infancy. It can be due to a combination of reasons, such as genetic inheritance of eczema tendencies, irritation from saliva, or in your case, the use of silver gel or coconut oil may induce more irritation or contact allergies.

Keep the affected areas dry — use a smooth cloth to gently dab away any dampness regularly. Instead of using the silver gel and coconut oil, try applying a fragrance-free moisturiser on the area every few hours. If the redness does not subside or if the rashes turn oozy, take your son to a dermatologist for an assessment, so that appropriate anti-inflammatory treatment can be given and the possibility of fungal infection can be ruled out.

**DR EMILY GAN**

Consultant, Dermatology Service, KK Women's and Children's Hospital

## Managing diabetes when you are sick



**Recently, when I was down with fever and flu, I noticed that my blood glucose levels were often low. Should I stop taking my diabetes medication when that happens?**



When you are ill, you may lose your appetite or feel nauseous. Eating less can result in lower blood glucose levels. You should not stop taking your diabetes medication, especially if you are on insulin. During this time, you should check your blood sugar levels more often, about four to six times a day.

For some, their blood glucose levels may rise when they are unwell. This is because their bodies become more resistant to the insulin that is produced or received via injection. They may also be drinking less water, which can result in dehydration and higher blood glucose levels. It is important to keep hydrated by sipping sugar-free fluids, and maintain normal meal patterns as much as possible.

In general, you should aim for blood sugar levels of 4-8 mmol/L before meals. If the level is falling but still within the range, and you have little appetite to eat, try to consume food that contains carbohydrates and is easier to digest, such as rice porridge and soup.

If the blood glucose level falls below 4 mmol/L, you are at risk of hypoglycaemia, or low blood glucose. You need to promptly consume 15g of quick-acting carbohydrates, 150ml of fruit juice or soft drink, or three teaspoons of sugar with half cup of water. Test your blood glucose level again 15 minutes later to make sure it has risen back to 4 mmol/L and above.

**DR DAPHNE GARDNER**

Senior Consultant, Department of Endocrinology, Singapore General Hospital

## Food myths during pregnancy



**Is it true that eating bird's nest or soya bean products will give my baby fair skin, and herbal tonics will make the baby more intelligent? I'm also worried that eating pineapple, which I like a lot, will lead to miscarriage. I just found out that I'm pregnant.**

There is no clinical evidence to show that these food myths are true. Most of the time, tonics are safe although we do not know their content.

There has also not been any documented case of miscarriage from eating pineapple or other so-called 'cooling' foods, such as papaya and grass jelly. Miscarriage can occur

because of abnormally formed pregnancy, infections, or certain medical conditions. Eating a variety of fruits is encouraged in a well-balanced diet. If you are worried, eat other fruits that make up two servings a day.

Following a healthy, balanced diet during pregnancy is important for the growth of your baby and to keep you fit. You do not have to 'eat for two' — it is more important to get the right balance of nutrients:

- Fibre found in whole grains, fruits, and vegetables
- Proteins, such as chicken, fish, eggs, and low-fat dairy products
- Iron-rich foods, such as red meat, green leafy vegetables, dried fruits, and nuts
- Cut back on fat, salt, and sugar

Some vitamins and minerals are especially important in pregnancy. To reduce the risk of brain and spinal cord defects, you are recommended to take folic acid every day until the end of your second trimester.

Speak to your doctor if you have had a baby with spina bifida (a birth defect that occurs when the spine and spinal cord do not form properly), or if you have coeliac disease, diabetes, or are on epileptic medications, as you will require a higher dose of folic acid.

**DR LEE WAI YEN**

Associate Consultant, Department of Obstetrics and Gynaecology, Singapore General Hospital



## Colorectal cancer screening tests



**My parents are in their 50s and do not have any known digestive problems. Should they go for faecal occult blood test annually or a colonoscopy as part of general cancer screening?**



A faecal occult blood test (FOBT) or faecal immunochemical test (FIT) is a useful preliminary screening test for individuals like your parents, who are above 50 and without any symptoms — provided they do not have risk factors, such as a family history or previous occurrences

of colorectal cancer, or personal history of polyps. These test kits are readily available, easy to use, non-invasive, and can be done annually.

Colonoscopy is the 'gold standard' test used for screening, as it is more accurate, and allows for the detection and removal of pre-cancerous polyps. It is also the recommended screening method for individuals with a higher risk of colorectal cancer, such as those who have a positive family history. For individuals with no risk factors for colorectal cancer and have a normal colonoscopy result, the test can be done again in 10 years.

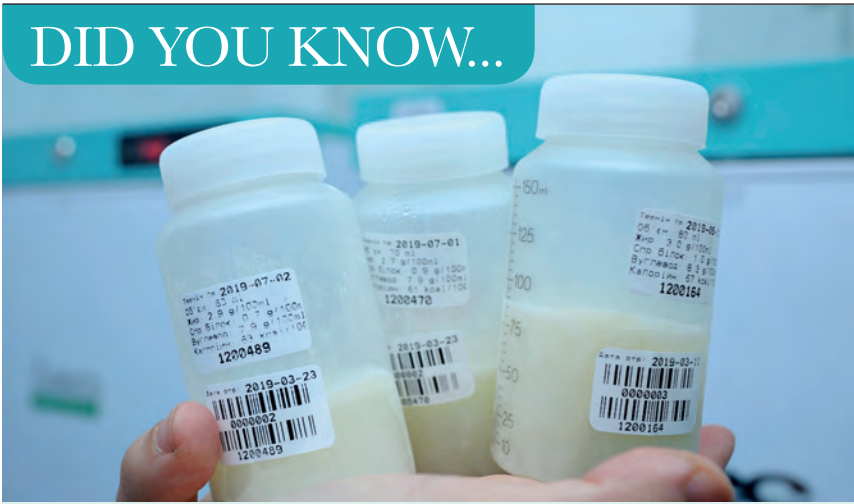


**DR SHAUN HO**

Consultant, Division of Radiation Oncology, National Cancer Centre Singapore



# DID YOU KNOW...



... **that** KK Women's and Children's Hospital (KKH) has a Milk Bank, where mothers can donate breast milk to help premature and sick infants?

Mothers whose babies are less than one year old can donate their breast milk, provided they are non-smokers, do not use illegal drugs and other prohibited substances, and do not routinely consume more than two alcoholic beverages or more than three cups of coffee, tea or other caffeine stimulant drinks a day.

They must also not have lived in or travelled to the United Kingdom between 1980 and 1996 for a total or cumulative period of six months, and must test negative for HIV, hepatitis B and C, and syphilis. For more information, email KK Human Milk Bank at [milkbank@kkh.com.sg](mailto:milkbank@kkh.com.sg).

... **that** SingHealth hospitals, national specialty centres (except NNI@TTSH), community hospitals and polyclinics now issue digital medical certificates (MC) that you receive via an SMS with a unique link under the [mc.gov.sg](https://mc.gov.sg) domain?

The digital MC is computer-generated and will not bear your doctor's signature. However, it will have his name and MCR number. To access your digital MC, you will

need to unlock it with a password, which is your date of birth. Once it is unlocked, the link for your MC can be forwarded to your employer or your email.

If you prefer a physical copy of your MC, you can either print the MC or ask for one from your medical team at the clinic on the same day of your consultation or upon discharge from the ward. An administrative charge will be levied on requests for physical copies after the day of the clinic visit or hospital discharge.

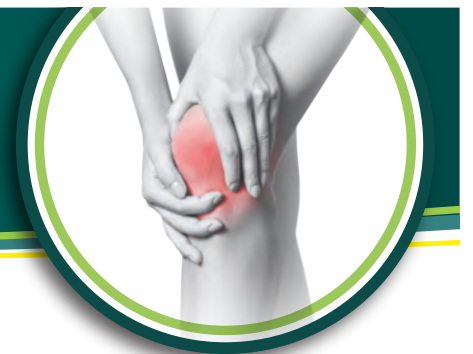
Paper MCs will be provided to patients who do not own mobile phones or do not have mobile numbers registered with the healthcare institution. It is important that the mobile number that you have provided to the healthcare institution is updated. You can check if your personal details are updated via the Health Buddy app. If you do not receive the SMS, contact the clinic or centre that you visited to re-issue a paper MC.

The digital MC is authentic and can be used for insurance claims. If your insurer has queries, direct them to [mc.gov.sg](https://mc.gov.sg). For more information, visit SingHealth FAQs ([www.singhealth.com.sg/patient-care/patient-visitor-info/digital-medical-certificates-faqs](https://www.singhealth.com.sg/patient-care/patient-visitor-info/digital-medical-certificates-faqs)).



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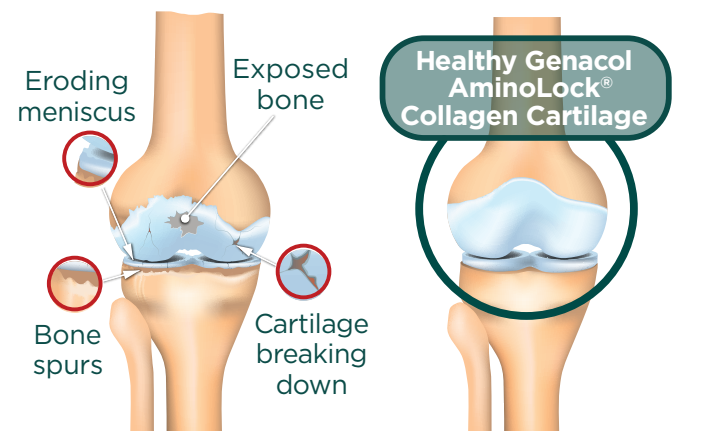
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2. Is it clinically proven to be safe?
3. Is it recognised internationally or sold in just a few countries?
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## GLUCOSAMINE: Not effective or not the right BRAND of glucosamine?

Before buying a glucosamine brand,  
ask yourself these questions:

1. How many clinical studies have proven that the brand works for painful joint conditions?
2. How many clinical studies have shown that the brand does not work?
3. How many long term, large-scale studies were conducted using the brand to prove its safety for long-term use?

For Viartil-S:

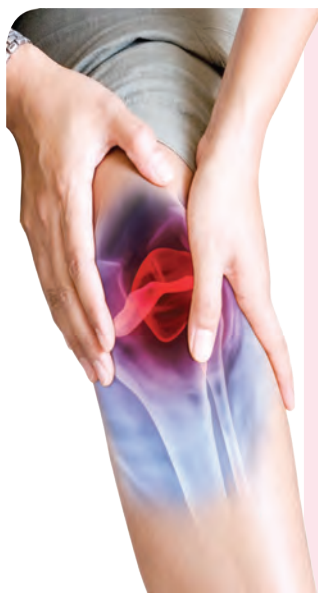
1. There are more than **100** clinical studies and all the studies have proven that Viartil-S works for painful joint condition.
2. No clinical studies have shown that Viartil-S does not work.
3. There are long-term studies using Viartil-S involving over 7000 patients proving its safety for long-term use. These include one 2-year, one 2.5-year & two 3-year studies with an 8-year follow-up study which has also shown that **Viartil-S reduces the risk of Total Knee Replacement surgery by 57%.**

What about the glucosamine brand that you are taking?

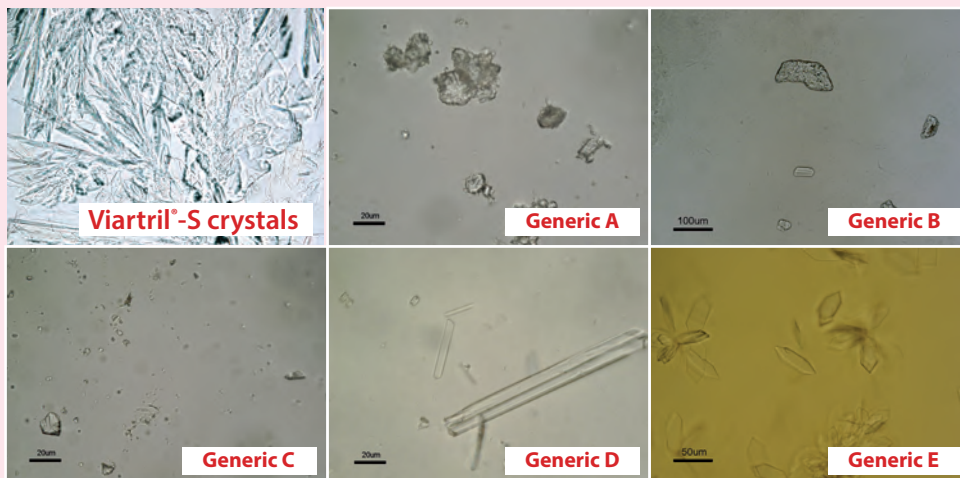
## Viartil-S<sup>®</sup>

The Patented Prescription-Grade Crystalline Glucosamine Sulphate for Joint Health<sup>1,2</sup>

In Singapore, glucosamine products are sold to public without the need for registration & approval by HSA. This means that even simple checks on purity are not required. So, the safety and efficacy of a brand can only be confirmed by lab & clinical studies.



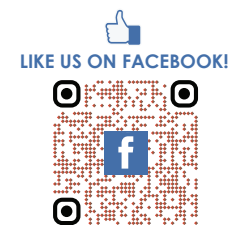
The microscopic structure of Viartil-S is different from generic glucosamine:



1. Dario Gregori et al. JAMA. 2018;320(24):2564-2579 2. Olivier Bruyère et al. Seminars in Arthritis and Rheumatism 44(2014) 253-263 3. Bruyère O, Altman RD, Reginster JY. Semin Arthritis Rheum. 2016 Feb;45(4 Suppl):S12-7.



The glucosamine brand used in  
all successful clinical trials<sup>3</sup>



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