

# CARING

Putting Patients First



Changi  
General Hospital  
SingHealth



## MAKING NO BONES ABOUT IT

The CGH Orthopaedic team  
provides holistic care for  
musculoskeletal conditions

## CONTINENCE CONFIDENCE

Managing common  
bladder and bowel  
conditions better

## A SAFE SPACE

Improving mental  
wellness in youths

ISSUE 3 2022



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IN-DEPTH

1 **Making sense of musculoskeletal conditions**

The evolution of CGH's Orthopaedic services

2 **Caring for your body**

Common bone, joint and musculoskeletal conditions

6 **Holistic orthopaedic care**

CGH's multi-disciplinary team provides a full spectrum of care

IN THE SPOTLIGHT

8 **Journeying with patients through the times**

CGH's Clin Assoc Prof Low Boon Yong, a healthcare veteran of 45 years, conferred Emeritus Consultant

IN PERSON

9 **Celebrating mothers (and daughters) in healthcare**

Three CGH parent-child pairs share their unique experiences

12 **Pin-pointing remedies**

Treating pain with acupuncture

13 **以针治“症”**

了解关于针灸疗法的资讯

INSPIRED

14 **Inspiring nurses to innovate**

Devising solutions to meet healthcare challenges

15 **What's up, bot?**

Robots and automation to support healthcare workers

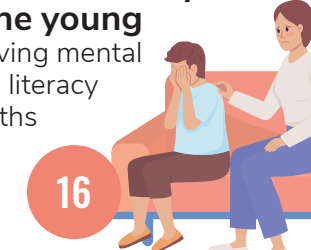


9

IN THE MIND

16 **A wellness ecosystem for the young**

Improving mental health literacy in youths



16

IN THE COMMUNITY

18 **Bettering your bladder and bowel care**

Managing constipation, diarrhoea, urinary incontinence and urinary tract infections more effectively

COMPLIMENTS

20 **Cheers to kindness and patience**

Kind words from a caregiver

IN ADDITION

21 **Breathtaking facts about asthma**

Clearing the air on this common chronic condition



15



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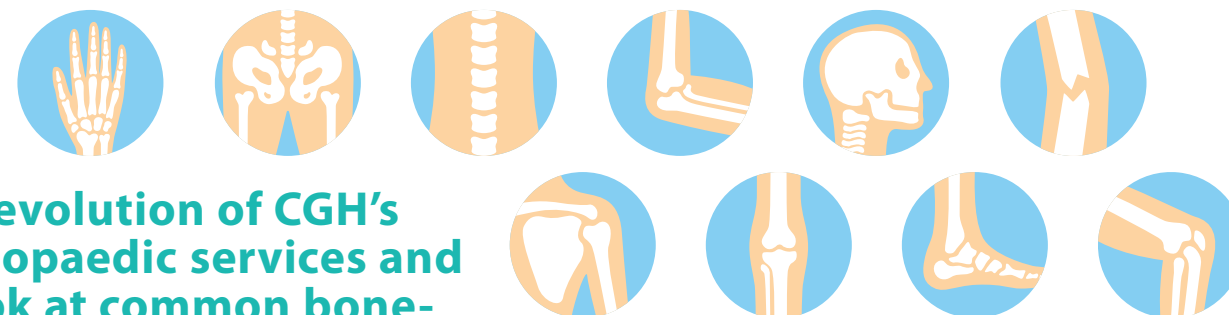
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# MAKING SENSE OF musculoskeletal conditions



The evolution of CGH's Orthopaedic services and a look at common bone-related medical issues.

Contrary to the perception that our bones are “fixed” and grow in a predictable way, our skeletons are remarkably malleable, and the bones beneath our flesh are very much alive. Healthy bone growth entails good bone strength and mass, which comes about with sufficient calcium, Vitamin D and exercise. It is not uncommon to hear about bone and joint issues among people of all ages, although these are more pronounced for seniors who suffer from arthritic and degenerative conditions. Those who are actively engaged in certain sports also face



Clinical Assistant Professor Charles Kon (centre), Consultant, Department of Orthopaedic Surgery, CGH, carrying out a minimally-invasive keyhole surgery on a patient's ankle.

“The CGH Orthopaedic team has evolved its clinical capabilities over the years, with subspecialisations in Foot & Ankle, Hip & Knee, Shoulder & Elbow and Spine & Trauma. We also continuously drive research and share our findings at conferences, as well as collaborate with regional and international surgeons.”

**Adjunct Associate Professor James Loh Sir Young**  
Chief and Senior Consultant, Department of Orthopaedic Surgery, Changi General Hospital

the risk of bone and joint injuries. At Changi General Hospital (CGH), the Department of Orthopaedic Surgery attends to more than 67,000 outpatient visits annually.

The team collaborates with other specialisations such as Rehabilitation Medicine, Rheumatology, Sports Medicine, Musculoskeletal Radiology, the Plastic, Reconstructive & Aesthetic (PRAS), and trauma teams to further their expertise, as well as provide diagnoses and treatments for different regions of the musculoskeletal system.



Adjunct Assistant Professor Kinjal Mehta, Senior Consultant, Department of Orthopaedic Surgery, CGH, leverages advanced technology such as the O-arm, a 3-D imaging system, during surgery.

# Caring for your BODY



**A look at some common bone, joint and musculoskeletal conditions.**

**W**e have over 200 bones in our body, and our bones are constantly growing and regenerating. There are instances that can cause damage to our bones and joints — and that is where the CGH Department of Orthopaedic Surgery comes in. The team sees a large variety of bone, joint and musculoskeletal conditions. We look at some conditions and related issues seen by the team.



Adjunct Assistant Professor Kinjal Mehta and Senior Staff Nurse Desiree Gucco Soriano treating a wrist fracture with a plaster.

With a focus on continually developing its holistic care capabilities, the clinicians are driven by the latest research- and evidence-based adoption of new technologies and innovations. With advanced surgical technologies, patients now have the option of undergoing minimally-invasive and computer-guided surgeries instead of open surgeries.

A recent CGH initiative is the use of **ring fixators** — circular metal frames that can be used for the correction and treatment of foot and ankle deformities and trauma, non-healing wounds, or open fractures. This is an alternative option for patients who are not suitable for internal fixation (the surgical insertion of implants). The ring fixators are designed to bear the patients' weight and confer greater stability so that they can continue with their rehabilitation even when a new bone is growing behind a broken bone.



**In acknowledgment of its expertise, clinical work and leadership in the field of Orthopaedics, the CGH Department of Orthopaedic Surgery received international recognition by Newsweek as a Top Specialty globally.**

## OSTEOPOROSIS

Common in countries that have a large ageing population, osteoporosis can easily lead to fractures due to falls or home accidents. Imagine an increase in spaces and cavities in the bones — that is the result of osteoporosis, where bones weaken, become brittle and lose their density. The resulting fractures are a major cause of disability among Singaporean seniors. CGH's orthopaedic trauma surgeons work with clinicians from other disciplines such as geriatric and rehabilitation medicine to address these fractures and complications.

Also known as a “silent disease”, osteoporosis could be caused by family history, insufficient calcium and Vitamin D, smoking or excessive alcohol consumption. As a chronic disease, life-long medication can help prevent continued bone loss and reduce risks of fractures.

## ARTHRITIS

Joint inflammation, stiffness, swelling and redness — these are some of the common symptoms of arthritis. As the condition worsens, the joints can become deformed. Non-surgical options are available to patients, including medications that can relieve pain and inflammation, lifestyle changes in reducing high-impact activities, weight-loss programmes and therapy.

If required, CGH's orthopaedic surgeons are able to carry out joint replacement and limb alignment surgeries when patients suffer complex fractures and arthritis. The surgeons are also able to perform joint reconstruction surgery.

## WRIST FRACTURES

Wrist fractures often occur as a result of falling on an outstretched hand. They can also occur because of accidents or sports injuries. Patients with a wrist fracture experience pain and tenderness, have bruising and swelling, or have an obvious deformity at the wrist and forearm region. A wrist fracture happens when the larger bone in the forearm breaks, or small bones in the wrist joint are broken.

Patients with wrist fractures are assessed by checking the skin and through X-rays. A cast (plaster) may be placed on the wrist to immobilise the broken fragments while the bone heals. Patients will be regularly reviewed to assess the healing of the fracture and subsequently will undergo rehabilitation once it heals. If the bones in the wrist are largely out of place, surgical treatment might be advised.

## SHOULDER PAINS



Shoulder pains are a common musculoskeletal condition, with rotator cuff injuries being a major contributor to shoulder-related complaints.

Patients may experience pain over the shoulder, or the upper arm region. This often starts as a dull minor ache, worsening over time with increasing intensity and frequency, affecting the shoulder's range of motion. Daily activities such as dressing, grooming and showering may be impacted. Shoulder pain can be worse in the night, especially when lying on the affected shoulder — and may lead to poorer sleep quality.

### CARE AND TREATMENT

First-line options include rest, pain and/or anti-inflammatory medications, and physiotherapy. Some patients may benefit from a shoulder joint injection, which uses a mixture of steroid and local anaesthetic medications for pain relief.

Surgical options — usually performed with a key-hole method — will be considered if these options are unable to help. Attachment of a graft can be used to bridge large tears, and insertion of a biological patch can help with tendon regeneration. Open surgery such as shoulder replacement may be necessary for patients with significant cartilage wear in addition to the rotator cuff injury. Post-operative physiotherapy is crucial to optimising treatment outcomes.

**CERVICAL SPONDYLOSIS**

Wear and tear in the neck

**PROLAPSED INTERVERTEBRAL DISC**

Also known as slipped disc, where fibrous outer parts of the discs between the spine vertebrae rupture, allowing it to bulge and protrude outwards

**WRIST FRACTURE**

**DID YOU KNOW?**

The **anterior talo-fibular ligament (ATFL)**, which prevents your ankle from coming out of the joint, is the most commonly-injured ligament. It is the sole ligament injured in 75% of the ankle sprains.

**ANKLE SPRAIN**

**ANKLE OSTEOARTHRITIS**

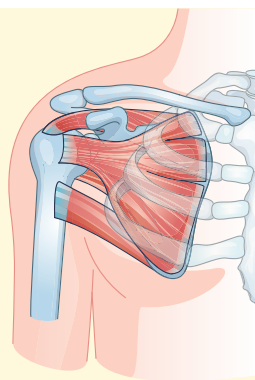
Degeneration of the cartilage between the bones in the ankle

**HALLUX VALGUS / BUNION**

The bending out or twisting of the big toe

**DID YOU KNOW?**

The **rotator cuff muscles** and their tendons form the innermost layer of the shoulder joint muscles. Comprising four muscles, the rotator cuff attaches the top of the arm bone to the shoulder blade.



**ROTATOR CUFF INJURIES**

**TENNIS ELBOW**

Swelling of the tendons in the elbow due to repetitive wrist and arm motions

**HIP FRACTURE**

Breakage of the top of the thigh bone, at the hip joint

**TRIGGER FINGER**

Fingers or thumb getting stuck in a bent position

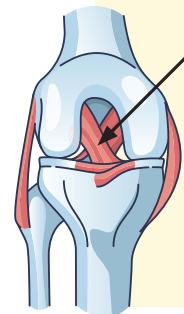
**KNEE OSTEOARTHRITIS**

Degeneration of the knee joint cartilage

**ACL (ANTERIOR CRUCIATE LIGAMENT) TEAR**

**DID YOU KNOW?**

The **ACL** is one of the four stabilising ligaments of the knee. It connects the thigh bone to the shinbone and provides stability to the knee joint.



**KNEE INJURIES**

An Anterior Cruciate Ligament (ACL) tear is a common contact sports injury involving the young and active population. You may hear a pop or crack sound. Such an injury results in pain, swelling, and instability of the knee. If the ACL tear is not treated, it can lead to further injury of the knee.

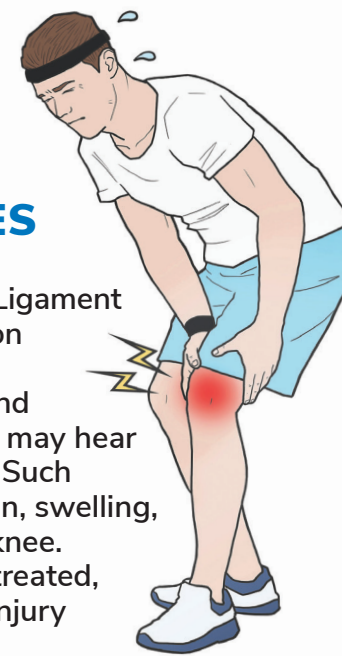
Some patients can manage with non-surgical treatment if they remain asymptomatic with physiotherapy and activity modification. However, if one plans to return to an active lifestyle, it is advisable to explore surgery.

**CARE AND TREATMENT**

The ACL reconstruction surgery is a commonly-performed procedure at CGH. The hamstring muscle is a commonly-used ACL graft (a substitute for the torn ACL) harvested from the same knee. ACL surgical techniques and options have evolved over the years, thanks to extensive global research. This includes the new "all-inside" technique which conserves bone and reduces post-operative pain. This technique potentially uses less hamstring graft and thus helps with the preservation of the hamstring function. As part of the procedure, an arthroscope — a camera similar in diameter to a pen — is inserted into the knee through keyhole-sized incisions to facilitate the surgery.

**Helping patients in their post-operative recovery**

The patient is able to go home within 24 hours of the ACL reconstruction surgery. A detailed set of post-operative instructions as well as a well-planned physical therapy programme are prescribed. This minimally-invasive surgery facilitates recovery via bone conservation, hamstring preservation and pain reduction.



**ANKLE SPRAINS**

The ankle joint is one of the most commonly-injured joints in sports activities. Sprains are the most common type of ankle injury that occur during sporting activities, especially those that involve sudden stops and movements such as basketball and football.

An individual with an ankle sprain experiences pain, swelling, a constant feeling of the ankle giving way, or rolling of the ankle (instability). He or she will find it difficult to use the stairs, walk long distances, run, do sports or wear high heels. In severe cases, one can experience instability when walking on flat surfaces and even ground.

**CARE AND TREATMENT**

Patients at CGH are first treated according to the POLICE protocol, a method of treating musculoskeletal injuries that involves Protection, Optimal Loading, Icing, Compression and Elevation. Physiotherapy sessions might be recommended if appropriate. If necessary, a foot and ankle specialist will follow up with the patient.

About 30% of patients with acute ankle sprains end up with chronic ankle instability, which results in prolonged swelling of the ankle. They often describe their symptoms as "ankle feeling loose" or "ankle giving way". If the condition persists, they can develop cartilage injury and have reduced range of ankle movement, as well as experience pain in their ankle during daily activities. There is also a possibility of early wear and tear (osteoarthritis) of the ankle. Other ligaments and tendons around the ankle can become injured, swollen and painful if left untreated. Hence, it is recommended that patients seek medical help if they are experiencing chronic ankle pains.

**Helping patients with chronic ankle instability**

Patients with chronic unstable ankles who are unable to recover from the initial treatments may be offered surgery. The ArthroBrostrom surgery is a minimally-invasive keyhole surgery performed as a day surgery or short stay case. The ligament is repaired using thread-like material. The patient will have two small sub-centimetre cuts to allow the insertion of an arthroscope for the surgery to be performed. Post-surgery, the patient is allowed full weight-bearing (the ability of a body part to resist or support weight) on the same day of surgery. After the procedure, patients can expect to return to sports in two months.



# MAKING NO BONES ABOUT IT



With our musculoskeletal system consisting of muscles, bones, joints, ligaments and tendons that make up our entire body, it is no coincidence that Changi General Hospital's (CGH) orthopaedic body of care consists of a multi-disciplinary team to provide a full spectrum of care.

A medical team helmed by orthopaedic surgeons and consisting of orthogeriatricians and anaesthetists works together closely to provide expedient specialised care for patients. Research has shown that safe and early surgery improves recovery outcomes, and CGH's dedicated team of experienced surgeons is equipped to handle these injuries and conditions.

"I am an **orthopaedic surgeon** in the trauma team, with interests in hip and knee surgeries. The orthopaedic team sees about 500 hip fractures a year at CGH in our increasingly elderly population. Resources are appropriately allocated for the timely management of patients with hip fractures, allowing us to perform the surgeries expediently to help our patients on their way to regaining their functional independence," he says.

"Patients are then monitored post-surgery by the orthopaedic team

**Dr Boo Ho Chin,**  
Associate Consultant,  
Orthopaedic Surgery



and therapy is commenced early with the support of our allied health colleagues to get patients back on their feet as soon as possible!"

**Raudhah Binte Haji Mohamad Mascuri,**  
Advanced Practice Nurse / Nurse Clinician



The multi-faceted role of an **orthopaedic advanced practice nurse** (APN) entails providing care for patients with musculoskeletal conditions including broken bones, arthritis, osteoporosis, joint replacement and other injuries and diseases. One of the treatments that the nursing team administers is the setting up of tractions (a system of weights, pulleys and ropes to realign broken bones) and backslabs (a slab of plaster on one side of the limb) at patients' injury sites to immobilise their broken bones while life-threatening conditions are being attended to.



The CGH nursing team setting up tractions for a patient.

For post-operative patients, the nursing team works closely with the surgeons in wound management and ensures optimal pain control. "As nurses, we work alongside physiotherapists and occupational therapists to promote early mobilisation," she says. "We also consult dietitians to discuss nutrition care plans, and with pharmacists on the appropriate dispensing and dosage of medicines."



Under the guidance of a physiotherapist, a patient manages a step using crutches.

**Elvin Gan,**  
Physiotherapist



**Physiotherapy** in an orthopaedic setting can be described as "giving life to what is injured, broken or repaired in our body". As a physiotherapist, Elvin aims to improve joint range and muscle strength, and provide pain relief to optimise the function of individuals. The physiotherapy team assesses, manages and treats the impairments of patients with orthopaedic injuries so that they can reach their optimal function within the shortest period of time. "We are involved in the care of our patient's rehabilitation journey during conservative management (treatment without undergoing any surgical procedure), before and after their operation," he says. "Patients and their caregivers are educated on the suitable exercises and strategies to facilitate healing and the use of walking aids, if applicable, that may be required at different stages of their rehabilitation journey." Physiotherapists also communicate with other care team members on any limiting factors — such as pain, numbness, reduced social support etc. — to help patients optimise their recovery.

**RADIOGRAPHY**

**Radiographers** act as the eyes of doctors to provide the first line of diagnosis for patients after their treatments have been administered. "We perform radiographic examinations to look at patients' bones and muscles pertaining to their injuries," she explains. "X-rays are usually the fundamental tool for diagnosing an injury before patients see the doctor. In addition, patients may require examinations like Computed Tomography (CT), ultrasound and Magnetic Resonance Imaging (MRI) scans to plan for their surgeries."

"With our help in providing professional and quality radiographic examinations, our patients' prognosis can be improved with the best interventions and treatments planned in a timely manner," she says.

**Katherine Tiong,**  
Radiographer



Preparing the Computed Tomography (CT) machine for a patient scan.

An **occupational therapist's** role in the rehabilitation team is to help patients work towards independence in daily activities. These include activities ranging from basic self-care such as using the toilet, taking a shower and putting on clothes to resuming valued hobbies and routines such as returning to work or school.

Noelle works with each patient to explore the possibility of continuing to do things in the same way as before their injury and practises the task with them so that they can regain their independence. She also assesses the home environments of patients, and suggests modifications to increase accessibility and safety within the house.

**Noelle Fong,**  
Occupational Therapist



"I may teach different compensatory ways of doing the same task," she explains. "For example, I may explore alternate methods of wearing a shirt for a patient with a rotator cuff injury who is unable to raise his/her arm sufficiently when threading the sleeves, or wheelchairs suitable for patients who have difficulty walking."



Wheelchair mobility training for a patient.

By Ms Ng Jia Ming, Changi General Hospital

# JOURNEYING with patients through the times

In his 45 years of service, Clinical Associate Professor Low Boon Yong, Emeritus Consultant of the Department of Orthopaedic Surgery at Changi General Hospital (CGH), has had a remarkable journey.

A veteran doctor, Clin Assoc Prof Low Boon Yong has witnessed the evolution of healthcare in Singapore. This includes milestone events such as the relocation of CGH and the old Toa Payoh Hospital in 1997 (he had led the Accident & Emergency (A&E) departments at both these hospitals). Clin Assoc Prof Low has weathered two major disease outbreaks — SARs in 2003 and the recent COVID-19 pandemic — and also mentored generations of doctors. In recognition of his excellence in patient care and lasting impact on healthcare, Clin Assoc Prof Low was conferred the lifelong Emeritus Consultant title by SingHealth this year.

**Accident and emergency care before computers**  
Back in 1988, when Clin Assoc Prof Low was tasked to set up the A&E department at the old Toa Payoh Hospital, the patient load was extremely high. There were no computers then, and Clin Assoc Prof Low recalls the times when patients were registered manually upon arrival at the A&E — with pen and paper.  
With only six medical officers running three shifts, Clin Assoc Prof Low implemented the earliest form of a triage system to attend to A&E patients efficiently. A senior nurse carried out a preliminary assessment of the

patients' respective conditions and allocated patients equally to each medical officer on a rotational basis. This move helped to decrease waiting times by over 60%.  
At CGH, Clin Assoc Prof Low played an instrumental role in contributing to the transformation of A&E departments across the nation. The triage system went on to be unanimously implemented, and is still in use today at A&Es in Singapore. With further advances in technology, the Electronic Medical Records system was implemented.

**Passing on a legacy of clinical excellence**  
A firm believer in nurturing younger generations, Clin Assoc Prof Low was also a key driver of the SingHealth Orthopaedic Residency Programme more than a decade ago. Today, he continues to mentor house officers, medical officers and family medicine residents in orthopaedics at CGH. He also teaches medical students at the NUS Yong Loo Lin School of Medicine and the NTU Lee Kong Chian School of Medicine. He believes that every generation of doctors must continue to mentor their juniors so they can take over well and continue to provide care for the public.

*"My hope is for every young doctor to treat patients with the greatest care and respect, possess the skills of a highly-trained craftsman and the wisdom of a school teacher to plant the seed of knowledge, as they forge ahead in their journeys."*



# CELEBRATING Mothers (and Daughters) in Healthcare

Many Changi General Hospital (CGH) staff juggle the roles of being a parent AND a healthcare worker — not an easy task, considering their multiple responsibilities! This Mother's Day, we salute the mothers among us, and dive into the journeys of three pairs of mothers-and-daughters at the Caring General Hospital as they inspire and learn from each other, and go the extra mile for patients.



Nurse Clinician **Norhayati Bte Abdul Rahman**, and her daughter, Senior Staff Nurse **Nursyazwani Bte Azmi**

**How did you inspire your child to join healthcare?**

**Norhayati:** I guess I unknowingly inspired my daughter to take up nursing as her career. When she was younger, I'd bring her to my clinic and hospital workplaces.

**Syazwani:** I chose Nursing because my mum is my biggest hero. It's always so fascinating to watch the way she helps people through her caring touch and gentle words. Being exposed to this, especially at a young age, made me want to make a difference in others' lives and heal people like she does.

Norhayati with one-year-old Syazwani.



**How was it like balancing parenting and your work?**

**N:** I would usually study and complete my school assignments only after my children slept. I had to balance my work, study and family at the same time. I am blessed with a very loving, understanding and supportive husband, who is very proud of us as he thinks that nursing is a very noble job.

**S:** I remember my mum changing her work timings for a few years just to spend time with me and my siblings. Looking back, I cannot imagine how she juggled raising us while studying for her diploma, advanced diploma and degree! She definitely inspires me.

**What are the benefits of both of you working in the healthcare sector?**

**N:** We are able to share our life experiences and lessons, and give advice on how to manage situations when our family members fall ill.

**S:** The perk is that we get to commute to and from work together when we're on the same shift! Journeys back home together are precious to me.

**How do you show care for your patients and exhibit passion in your work?**

**N:** When Syazwani's ward was converted to a COVID-19 Ward, she shared with me

Senior Rehabilitative Technician **Cherry Cheok**, with her daughter, Occupational Therapist **Noelle Fong**



The best gifts of all: Norhayati with her daughter Syazwani and her grandchildren.

her desire to help her patients who were migrant workers. We worked with the ward staff to raise funds and buy essentials for the migrant workers. The workers were very grateful for the dedication and kindness shown.

**S:** There was once during Hari Raya when my mum went all out to get a long-staying patient with no next-of-kin a set of festive clothing and cooked some delicacies for him. My whole family visited him in the ward that morning and he shed happy tears while eating my mum's dishes and complimenting her cooking. She's the best cook! And for her to be in nursing for more than 30 years — if that's not passion, I don't know what it is!

**How did you inspire your child to join healthcare?**

**Cherry:** I'd like to think that the joy I get from the meaningful work that I do affirmed Noelle's choice to join healthcare. Being present; to be our patients' listening ear; and to empathise, comfort and encourage helps them tremendously on their road to recovery.

**Noelle:** I learnt more about allied health through my mum, which eventually led me to decide to become an occupational therapist. She has always taught me to value and help others, so healthcare seemed like a good fit.

**How did you both end up working in CGH?**

**C:** I shared with her my enjoyment at work and the multi-disciplinary care and working culture here at the Caring General Hospital — where we work closely with our colleagues from the other care teams to provide the best care to our patients, and encouraged her to work here.

**N:** Seeing my mum blossom at her workplace and

interacting well with her colleagues further affirmed my choice. It's quite fun to share the same workplace with my mum. She sometimes leaves 'goodies' on my desk — like a chicken pie or a note which really encourages me in rough times. There was once when she even roped in my colleagues for a birthday surprise!

**How was it like balancing parenting and your work in healthcare?**

**C:** I had to cope with changes and challenges, especially learning IT skills. At one point, I had to go part-time due to my youngest daughter's PSLE preparation. I was very appreciative of the support from my bosses at that time.

**N:** When my mum re-entered the workforce, I was just starting my degree in occupational therapy. I remember being worried for her when her working hours stretched till late but was also amazed at her energy to still manage the household and family. A 'superwoman' indeed!

**What are the benefits of both of you working in the healthcare sector?**

**C:** I work closely with speech therapists, and my daughter rehabilitates patients affected by physical, cognitive or mental health conditions to become as independent as possible, so occasionally we may see the same patient. Being able to participate in the patients' care and watch their progress together is rewarding. Noelle can also relate quite easily to my experiences as a healthcare worker.

**N:** I learn a lot from my mum. It actually helps that we work in different roles as I can consult her on things that are under her expertise. As a fellow allied health professional with more experience, she is also able to understand the challenges and joys we face.

**How do you show care for your patients and exhibit passion in your work?**

**C:** Noelle demonstrates her responsibility towards patients and her team through her actions. I see that she strives to do her best for all her patients.

**N:** My mum goes the extra mile for patients. She embodies the value of compassion when it comes to patient care. One of the many examples that come to mind is when she would spend extra time to cheer up a patient by playing them Hokkien songs. She even had me teach her how to make playlists on YouTube and Spotify for this. If you ever get the chance to talk to her, you cannot fail to notice her happiness when talking about the progress her patient had made, no matter how small.



Senior Staff Nurse **Gloria Auxtero Descallar** and her daughter, Enrolled Nurse **Althea Auxtero Descallar**

**How did you inspire your child to join healthcare?**

**Gloria:** When Althea was in high school, she told her friends that she wanted to be a nurse. I encouraged her to study Nursing, highlighting how it is a fulfilling career, nurturing and caring for patients. I also shared other professions with her so she would understand the differences.

**Althea:** My mum inspired me to join healthcare. When I was little, my dad used to send my mum to work, and would bring me along with them. My mum has been an Accident & Emergency (A&E) nurse since then, so I became used to the hospital environment, and met many nurses who handled their work with poise.

**How was it like balancing parenting and your work in healthcare?**

**G:** It was challenging but also very rewarding as I had to juggle my time being a full-time mum and staying active at work. This was especially so when I went for trainings. At the end of the day, nothing compares to the feeling of going home to my kids.

**A:** It's normal that we might not see each other for three days even though we stay under one roof! However, we sometimes leave gifts with a note for each other, as we are on shift work.

**What are the benefits of both of you working in the healthcare sector?**

**G:** We can easily relate and understand each other better. We are also able to share experiences and be more supportive as a family.

**A:** We have common friends from work. We also share new things that we learn from the hospital.

**How do you show care for your patients and exhibit passion in your work?**

**G:** Althea often expresses her hopes for her patients to get well regardless of their health status. She is very detailed in caring for her patients and constantly thinks of ideas to improve their care.

**A:** My mum's passion and endurance is what makes me admire her the most. To be in the nursing profession for more than 40 years says it all.

# PIN-POINTING REMEDIES



## Going beneath the surface

CGH acupuncturist Sim Ann Ling shares more about acupuncture and how it fits into the multi-disciplinary care provided at the hospital.

## 以针治“症”

樟宜综合医院针灸师沈安宁分享更多关于针灸疗法的资讯, 以及它如何被用于医院的跨学科护理中。



Explaining the body's meridian system to a patient.

With the new Acupuncture Service introduced at Changi General Hospital (CGH) at the start of 2022, patients plagued by conditions such as neck and lower back pain now have an added option for managing their discomfort.

CGH acupuncturist Lam Man Sze shares more on her role and her journey to becoming an acupuncturist.

### What is a typical day like as an acupuncturist?

We attend to a diverse range of patients whose pains are caused by various conditions. During consultation, we ask them about their present condition, symptoms and medical history. All patients referred to the service will be assessed by us on their suitability. A Traditional Chinese Medicine (TCM) diagnosis will be derived after the assessment, and acupuncture will be administered based on it.

Some patients ask us if the treatment hurts. Our response to this would be that it varies from person to person. Some may experience temporary pain during the initial insertion of the acupuncture needles, while others do not feel any pain. After the needles are in position, there should not be any sensation of pain.

**"Acupuncture is widely accepted by most physicians as one of the treatment modalities for pain. By incorporating acupuncture into the comprehensive suite of evidence-based medical services at the hospital, we are able to provide even more patient-centric and holistic care options as the Caring General Hospital."**

**Clinical Assistant Professor Wee Tze Chao**  
Senior Consultant, Department of Rehabilitation Medicine, CGH

As part of the hospital's research and innovation culture, we also study the literature on the efficacy of acupuncture for different conditions, and are looking into research collaborations in this area.

### What was a memorable experience in the course of your work?

I was caring for a patient with a chronic persistent neck pain condition that caused him to experience a radiating pain in his head, leading to intense migraines. During the acupuncture session, he realised that needles were not only placed on his region of pain, but also on other parts of his body. The frequency of his pain subsequently reduced from four times to once a week. He shared that he was surprised

at this beneficial non-localised approach and was relieved after his pain (along with his frustration) was alleviated. Once his symptoms dissipated, he was able to focus on his work again.

### Why did you decide to join CGH and how do you hope to help patients?

I previously worked in the environmental engineering and operations fields, before I decided to follow my calling to help those with health conditions. I took a postgraduate course at the Singapore College of TCM and graduated with a bachelor's degree conferred by the Guangzhou University of Chinese Medicine. To attain the Singapore TCM practising license, I took the Singapore TCM Physicians Registration Examination (STRE), a mandatory requirement to be an acupuncturist in Singapore. I then worked as a TCM physician and an acupuncturist in various settings. When I heard that an acupuncture service was being set up in CGH, I wanted to join the hospital to provide my expertise in acupuncture as a value-added treatment option in caring for patients.

### What is acupuncture?

Acupuncture is a TCM treatment that involves stimulation of certain points on or near the surface of the body. It improves the flow of "qi" (energetic balance of the body) or energy along the meridians (pathways) to normalise physiological functions or to treat ailments or conditions.

### How does it work?

During the insertion of acupuncture needles, both local and centralised reactions are stimulated. Local reaction involves the stimulation of sensory neurons in the skin while a central reaction occurs when the signals reach the brain and spinal cord.

### Which other systems does acupuncture benefit?

Acupuncture can influence other systems such as the cardiovascular system, endocrine system and immune system.

### What sort of pain does acupuncture help alleviate?

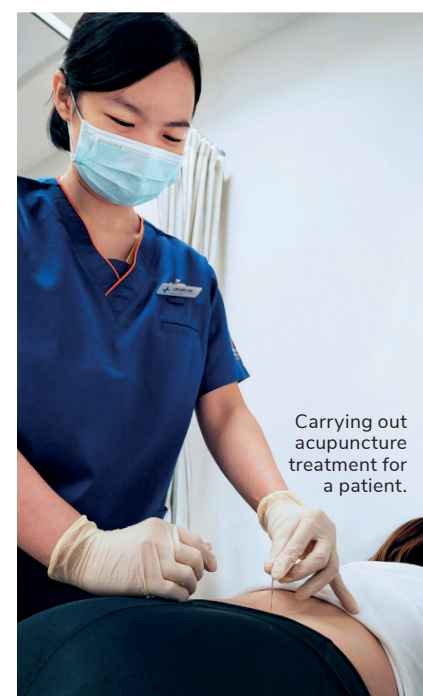
Acupuncture can be used to treat conditions such as neck pain, back pain, frozen shoulder, knee pain, tennis elbow, osteoarthritis, sciatica and headaches.

### What other conditions does acupuncture treat?

The use of acupuncture is not just limited to pain management, but may be incorporated in the treatment of other ailments such as Bell's palsy, stroke, menstrual pain and insomnia.

### Is acupuncture safe?

Acupuncture is safe when administered correctly. Acupuncture points are found deep in the muscles, joints or bones. Acupuncturists are trained in human anatomy and will avoid vital vessels, nerve trunks and vital organs when inserting needles.



Carrying out acupuncture treatment for a patient.

### 什么是针灸?

针灸是一种中医疗法, 通过刺激身体表层上的某些穴位来达到治疗的目的。它能改善身体中沿经络流动的气或能量, 让机体生理功能回归正常或治疗某些疾病。

### 它是如何生效的?

在针刺过程中, 局部和中枢反应系统都会受到刺激。局部反应包括刺激皮肤中的感觉神经元, 而当信号到达大脑和脊髓时, 中枢反应将产生。

### 针灸能让其他哪些系统受益?

针灸可以影响其他系统, 例如心血管系统、内分泌系统和免疫系统。

### 针灸有助于缓解哪些疼痛?

针灸可用于治疗颈部疼痛、背部疼痛、肩周炎、膝关节疼痛、网球肘、骨关节炎、坐骨神经痛和头痛等疾病。

### 针灸还能治疗哪些病症?

针灸的使用不仅限于疼痛管理, 还可以用于治疗其他疾病, 如贝尔氏麻痹、中风、痛经和失眠。

### 针灸安全吗?

在正确施针的情况下, 针灸是安全的。穴位位于肌肉、关节或骨骼的深层凹陷处。针灸师受过人体解剖学训练, 在施针时会避开动脉、神经干和器官。





# INSPIRING NURSES TO INNOVATE

**Changi General Hospital (CGH) nurtures budding nurse innovators to ideate and implement solutions to meet future health challenges.**

Nurses are often hailed as the backbone of our healthcare system. To promote a vibrant nursing innovation culture and prepare a future-ready nursing workforce at our hospital, the Nursing Transformation (NT) department works closely with nursing leaders to identify potential nursing talents who have a keen interest in innovation and develop them further through planned training and competency development under the CGH Nurse Innovator Pathway.

**A leader in mentoring nurses on healthcare transformation**

Mr Wong Kok Cheong, Deputy Director, NT, CGH, was one of the first to benefit from the Nurse

Innovator Pathway. In 2021, he attended the Singapore BioDesign Faculty Fellowship programme, a prestigious executive programme by the Agency for Science, Technology and Research (A\*STAR) for selected innovation leaders. Based on the internationally-recognised Stanford BioDesign methodology, the participants experienced hands-on training and coaching to learn to mentor others in Health and Medical Technology Innovation. "Innovation is a key driver to advancing healthcare for tomorrow," he shares. "By acquiring deeper knowledge and higher-level skills to better facilitate and mentor staff in identifying unmet clinical needs, developing evidence-based ideas and solutions, collaborating with other stakeholders, as well as implementing innovative

solutions, I aspire to inspire nurses — no matter what age they are — to continue learning and innovating while we care for our patients."

Enriched by the knowledge and skills gained, Mr Wong has enhanced his review and evaluation methodology for innovation proposals, and provides guidance on refining them for application in real-world settings. Under the mentorship of the NT team, nurses will learn the ropes in managing innovation projects from idea conception to the successful implementation and expansion of their innovative solutions. Today, Mr Wong has his plate full with several innovation projects in the works. These range from harnessing robotics to partner nurses, to leveraging Artificial Intelligence (AI) and machine learning, as well as exploring new ideas with academic and healthcare partners.



Mr Wong at the graduation ceremony of the BioDesign Faculty Fellowship programme.

**A PATHWAY TO PROGRESS**

The Nursing Innovation Pathway outlines the levels of training and competency development required to prepare and grow nurse innovators, starting from the foundational level to the advanced level; and other programme components such as:

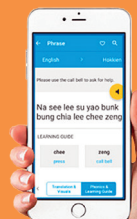
- Talent Identification and Development Plan
- Hands-on participation or leading innovation projects at hospital/cluster level
- Immersion into the field of healthcare and medtech innovations
- Fellowship programme to Nursing Transformation
- Measurement of progress

**CREATIVE WAYS TO ENGAGE PATIENTS**

One of the memorable projects implemented by the NT team includes Singapore's first dialect smartphone app that aims to enhance the communication between frontline nursing staff and patients.



Scan the QR code to read about the i-Comm app



## What's up, Bot? Robots are helping out at Singapore's largest COVID-19 quarantine facility.

Above: Dr Janil Puthuchery, Senior Minister of State, Ministry of Health (second from right) and Prof Ng Wai Hoe, CEO, CGH (third from right), with CGH and MOH colleagues as well as the robotic team at CTF@Expo Hall 9.

At the COVID-19 Treatment Facility (CTF) at Expo Hall 9, multiple robots and smart applications — from cleaning and disinfection to video calls and teleconsultation, and alerts for urgent care or attention — are in use to support healthcare workers and operations.

This is the first time robots have been integrated with CTF operations to augment care for our community. Driven by Changi General Hospital's (CGH) Centre for Healthcare Assistive & Robotics Technology (CHART), with the support of the Ministry of Health (MOH), the trial commenced in March 2022, and efforts are underway to deploy robots at other CTFs.

Dr Janil Puthuchery, Senior Minister of State, MOH, who visited the CTF to see the robots in action, said, "If proven successful, this new model of care delivery can also be deployed to our hospitals, to support our healthcare and improve productivity."

A patient at the CTF tele-consults a doctor via a telepresence robot. Such robots can also be used to facilitate video calls between patients and their loved ones.



Left: Contactless sonar (non-video) sensors can supplement alert and detection efforts, monitoring patients' safety behind closed doors, while not compromising patients' privacy.

Below: A re-enactment of how the contactless sonar (non-video) sensor works.



Cleaning robots can be triggered remotely at scheduled timings, and are most suitable for cleaning tasks in large spaces.



**14**-year-old Abigail used to be an outgoing girl in school, but over the past few months, her classmates noticed a change in her. She was withdrawn, easily fatigued and had lost interest in her favourite K-pop dance activity. Her teachers also observed that she could not concentrate in class and had difficulty keeping up with her school assignments.

Fortunately, her friends informed their form teacher, who then checked in with Abigail. Abigail agreed to discuss her struggles — which arose from a strained relationship with her parents — and accepted the intervention of the school counsellor. This led to the eventual decision by Abigail and her parents to seek medical help at CGH.

Had it not been for her friends and teachers who spotted the red flags, Abigail's condition could have gone undetected. Recognising the important role that schools play as an additional support system, a team of CGH adolescent mental health experts kickstarted the Youth Outreach Programme, known as YoOP!

YoOP! is designed to further support students, educators and counsellors in schools to improve mental health literacy, dispel myths on mental illness and equip them with skillsets to identify and support their peers who are at risk.

# A Wellness Ecosystem for the **YOUNG**



**Changi General Hospital's (CGH) outreach programme for youths and educators aims to build a supportive school environment for students with mental health struggles.**

**“Through the YoOP! Programme, CGH hopes to shape the way mental health is perceived by students, staff and parents. These interventions also encourage our youths to start the conversation about mental wellness, support their peers and develop compassion for those with mental health conditions.”**

**Clinical Assistant Professor Cheryl Loh**, Chief and Senior Consultant, Department of Psychological Medicine, CGH

**“We hope to support the creation of a psychologically safe environment in school for at-risk students and students recovering from depression, anxiety, adjustment disorders and other mental health conditions, while complementing existing mental health initiatives in schools.”**

**Dr Tabitha Mok**, Consultant, Department of Psychological Medicine, CGH



At CGH, a multi-disciplinary team comprising psychiatrists, psychologists, occupational therapists and medical social workers work with youngsters like Abigail to understand their symptoms, diagnose their condition and provide personalised treatment plans.

As Abigail was assessed to have moderate to severe depression, her treatment plan involved a combination of medication and therapy. Contrary to the belief that medications may change the patient's personality or dull the senses, they actually improve most symptoms of depression such as overwhelming sadness, loss of enjoyment, low energy and poor concentration, and help the young person return to their usual self. For mild depression, therapy alone may be offered first. Every patient has slightly different circumstances and hence treatment will be customised accordingly.

Most adolescents progress well in their recovery journeys with treatment and support from their families, school and mental health professionals. Abigail took an extended break from school as her low moods and energy levels, and loss of interest made it challenging for her to keep up with academic and CCA demands. Since Abigail's diagnosis six months ago, her condition has seen improvement and the CGH care team is working towards supporting her gradual return to school.

Easing them back to school, with the aid of teachers and school counsellors, is an important step as these students often experience a loss of confidence or feel self-conscious about repeating the year. By generating more conversations on mental health and the understanding of mental health conditions through YoOP!, more schools will be able to support the academic as well as the emotional needs of students like Abigail as she recovers from depression and continues on her journey of growth.

## ALL FIGURED OUT

Over the last two years, community referrals to Changi General Hospital's adolescent mental health service **HAVE RISEN APPROXIMATELY TWO-FOLD.**

**YOUTHS AGED 13 TO 19** attend the clinic due to mental health disorders such as depression and anxiety. They often have stresses from academic pressure, interpersonal relationships, cyber-bullying and family issues.

By Clinical Assistant Professor Cheryl Loh, Chief & Senior Consultant, Department of Psychological Medicine, Changi General Hospital

## DISCUSSING MENTAL HEALTH WITH YOUR CHILDREN

**Keep an open mind and look out for symptoms.**

Mental illnesses are usually multifactorial in cause, such as genetics, family environment, social situation and life stressors. It helps when parents are aware of mental illnesses so that they keep an open mind when discussing a child's problems.



### How to tell if my child is stressed, feeling anxious or depressed?

Stress is an umbrella term for all the physical and psychological reactions experienced when they experience increased demands. While symptoms may overlap with anxiety and depression, the key difference is noting the severity and how much it affects your child.

Feeling miserable after a tiff with a friend is an understandable reaction, but if your child starts talking about being useless, hopeless or suicidal, it is a cause for concern.

### How can I educate my child to feel safe in coming to me for help?

It is important to spend time regularly to listen to your child, and engage in meaningful conversations to gain a full picture of how he or she is doing. This encourages your child to open up about his or her difficulties and fears. Some children may find it difficult to describe emotional problems and may respond with “don't know” or “never mind”. Allow them to carry on talking about their feelings, and refrain from interrogating or going into problem-solving mode.

### When should I bring my child to a psychiatrist?

The decision to seek medical attention is based on many factors, such as severity of the symptoms and their impact on daily functioning. Parents may wish to discuss the situation with adults familiar with their child, such as other older siblings, teachers, school or family service centre counsellors, or even a familiar family doctor.

# Bettering your bladder and bowel Care

In conjunction with **World Continence Week in June**, learn how seniors can better manage constipation, diarrhoea, urinary incontinence and urinary tract infections by developing healthy habits.



In caring for the community as the Caring General Hospital, Changi General Hospital (CGH)'s community nurses visit Senior Activity Centres, Residents' Committees, Community Centres and seniors' homes to educate seniors on health and wellness. They impart tips and advice on making lifestyle changes and exercises to help them better manage their bladder and bowel conditions, carry out geriatric general health assessments and conduct caregiver training.

## Managing common bladder and bowel conditions

Constipation, diarrhoea, urinary incontinence and urinary tract infections are common bladder and bowel conditions seen in the community. While such conditions can potentially affect patients of any age and gender, some of these can pose a greater challenge to seniors with mobility issues or other underlying health concerns, in terms of convenience and hygiene. These conditions can also pose a serious threat to young children especially if they last for a prolonged duration.

### CONSTIPATION

Most people would have experienced constipation in their lifetime. The hard or infrequent passing of stools is often accompanied by bloating and abdominal discomfort. While it is usually temporary, complications such as hemorrhoids (swollen veins in anus), rectal prolapse (intestines protruding from the anus), and anal fissure can occur.

Causes of constipation include inadequate fibre and liquid intake in the diet. Clinical interventions are required to address constipation arising from colorectal diseases, irritable bowel syndrome and medications.

#### TO MANAGE CONSTIPATION

- Modify your diet by consuming more high-fibre foods such as whole grains, vegetables and fruits
- Modify your lifestyle by staying active and getting regular exercise
- If dietary and lifestyle modifications are insufficient in helping to relieve the symptoms, the doctor might prescribe some medications that can help provide relief: stool softeners, bowel stimulants, bulk-forming agents and suppositories



### DIARRHOEA

When your bowel movements are loose, watery and frequent, you are having diarrhoea. It is important to monitor and consult your doctor if the diarrhoea does not improve after 24 hours.

Diarrhoea can be caused by bacterial or viral agents that you have incidentally consumed as a result of improper handling or preparation of food, or if you have allergies or sensitivities to certain foods. Medication may be prescribed if your doctor deems it necessary. You should seek treatment as soon as possible if you are unable to stay hydrated due to severe vomiting, have blood in your stool or have a fever.

#### TO MANAGE DIARRHOEA

- Seek medical advice before using anti-diarrheal drugs
- Ensure adequate hydration
- Monitor and prevent skin from irritation due to constant contact with faeces or urine



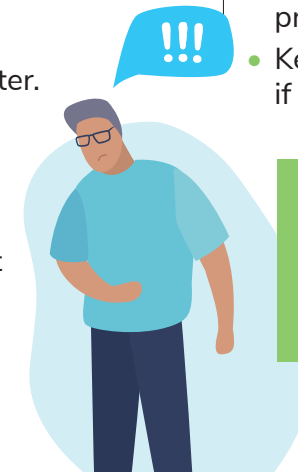
### URINARY TRACT INFECTION

Feeling a "burning" pain when passing urine, having blood-stained, cloudy or foul-smelling urine or experiencing lower loin pain or fever? It could be a urinary tract infection (UTI) at play.

UTI indicates the presence of a significant amount of bacteria within the urinary tract, and can be caused by a range of factors including the introduction of foreign bodies around the urinary tract, co-existing diseases involving the pelvis such as tumours and inflammatory bowel disease, and sexual activity. Consult a doctor if you suspect that you have UTI — you may be prescribed antibiotics to treat your condition after a urine culture test is conducted.

#### TO MANAGE UTI

- Drink plenty of fluids, especially water. Cranberry juice may also be helpful
- Practise good hygiene by wiping yourself from front to back to avoid faecal contamination of the urinary tract after going to the toilet
- Regularly empty your bladder completely to prevent accumulation of infected urine in the bladder



### URINARY INCONTINENCE

If you are leaking urine involuntarily, you may be experiencing urinary incontinence. There are three main types of urinary incontinence — Stress Urinary Incontinence (SUI), Urgency Urinary Incontinence (UUI) and Overflow Urinary Incontinence (OUI).

In SUI, involuntary urinary leakage occurs because of the loss of support to the bladder and urethra, due to causes such as chronic coughing, childbirth, menopause, previous prostate surgery in men, or extended high-impact activities such as running. Patients with UUI experience symptoms characterised by urinary urgency, usually associated with frequent urination during the day and/or during sleep. For some patients, the urinary urgency can be so severe that they may leak urine before they have a chance to reach the toilet. OUI may be related to weak bladder muscle contraction and/or bladder outlet obstruction, for example in men with prostate problems.

It is possible to recover through various treatments, including the avoidance of caffeinated drinks, use of non-surgical methods such as pelvic floor (Kegel) exercises, oral medication and surgical procedures.

#### TO MANAGE URINARY INCONTINENCE

- Empty your bladder every two to three hours to prevent urine retention
- Wear clothing that is easy to remove
- Consider the use of absorbent products, for example, incontinence liner, pads, diapers
- Keep skin area between the anus and genitals clean and dry to prevent skin problems such as irritations and infections
- Keep a commode, bedpan or urinal nearby if mobility is a problem



## 7 TIPS TO BETTER BLADDER AND BOWEL HEALTH

- 1 Ensure you have **fibre** through vegetables, fruits, and wholegrains in your daily meals.
- 2 Drink **sufficient fluids**, approximately 1.5 to 2 litres a day, unless advised otherwise by your doctor.
- 3 **Avoid food and drinks that irritate** the bladder and bowel. Reduce your intake of caffeine, alcohol and soft drinks.
- 4 Establish a **daily routine** and set aside time for undisturbed toilet visits; a warm drink every morning will help with bowel movements.
- 5 **Stay active** by exercising regularly. Staying active helps promote bowel stimulation.
- 6 **Do not delay bladder or bowel movements** when you feel the urge to go. This helps prevent urine retention and constipation, and helps those with incontinence avoid unnecessary infections or embarrassment due to leakage.
- 7 **Quit smoking.** Nicotine in cigarettes can irritate the bladder which may worsen incontinence. Coughing spasms from smoking can also lead to urine leakage.



Scan the QR code to find out more about the services offered at CGH's Urology Clinic

# Cheers TO KINDNESS AND PATIENCE

With patients at the heart of all we do, Changi General Hospital strives to be the Caring General Hospital. A patient's caregiver shares some kind words for the care team members — Chee Hsin Ching, Principal Radiographer, and Nur Farah Amirah Binte Mohamed Salleh, Radiographer, Department of Radiography — who have made a positive impact on her mother and her.

“

I accompanied my mom (Mdm N.A.L.) to her MRI appointment on 8 January at Changi General Hospital. Her current condition (spinal compression) was giving her a lot of pain, and she was also very nervous and uneasy as it was her first time doing an MRI.

I would like to compliment the staff at Radiology B1/ MRI Room 19 for being very kind and patient with us and particularly to my mom.

Starting from when one of the staff informed us to get ready, our visit was a good experience. The staff took the effort to put us at ease by speaking Cantonese to my mom when she noticed that my mom understood it better. She explained what to do very clearly and patiently. My mom, who couldn't sleep the night before, felt assured and it made the anticipated nerve-racking experience very much better for her.

I couldn't be with my mom when she had to do the MRI and I was worried because she is not very mobile and I knew that she was going to panic. But the session went very well. Even with her nervousness, she knew what to do and completed the session smoothly — and this is a testimony to how patient they had been with her. She has nothing but praise for the kind and friendly staff. I am sure that being kind and patient is something they probably think is part of their job and is not a big deal, but it really makes a difference. Their kindness and patience enabled us to have a good weekend.

From a dreaded MRI procedure, my mom now feels she accomplished a goal because she had people supporting and encouraging her. Her feelings about our upcoming appointments and the treatment regime have taken a positive turn as well. So I would like to say a big thank you! ”

Best regards  
P.S.S.



Principal Radiographer Chee Hsin Ching (above) and Radiographer Nur Farah Amirah Binte Mohamed Salleh (below).



# BREATHtaking facts about Asthma

This World Asthma Day, clear the air on this common chronic condition through a filter of popular phrases.

## It 'takes one's breath away'

*When asthma patients breathe through inflamed and narrowed airways.*

It is not normal to experience frequent or persistent breathlessness. This indicates poor asthma control and is a risk factor for severe attacks. Consult your doctor if this occurs frequently or if you get breathless easily, to see how your asthma can be better controlled.

## Don't 'put on airs'

*The accumulation of medical conditions from frequent oral steroid use to treat asthma attacks.*

The frequent and cumulative use of oral steroids like prednisolone can lead to side effects such as diabetes mellitus, osteoporosis and weight gain.

Oral steroids are typically prescribed as a short course treatment for asthma attacks that do not improve with inhaled treatment alone.

Conversely, inhaled steroids in preventer inhalers are very safe, even when used long-term, because they are deposited directly in the airways with minimal absorption into the blood circulation. Inhaled steroids also help to suppress airway inflammation and prevent asthma attacks so that oral steroids do not have to be used at all.

## Time to 'breathe easy'

*The feeling you get when your asthma is under control.*

Although asthma cannot be cured, it can be well-controlled, so patients can lead a healthy and active lifestyle. Patients are encouraged to take their preventer inhaler regularly, avoid triggers such as environmental pollutants, quit smoking and follow their written asthma action plan. Those with asthma are also strongly encouraged to have their COVID-19 and yearly influenza vaccinations.

## You'll 'breathe a sigh of relief'

*The reprieve a person with asthma gets after using the reliever inhaler.*

Suppressing airway inflammation is essential for good asthma control. Although Salbutamol or Ventolin inhalers (also known as rescue or reliever inhalers) help to open up airways and temporarily relieve symptoms, they do not suppress airway inflammation at all. In fact, the excessive use of these rescue medications increases the risks of attacks and even death due to asthma.

Preventer inhalers (also known as controller or maintenance inhalers), on the other hand, reduce inflammation in the airways and are the most important part of treatment for the condition. Patients should use their preventer inhalers regularly as prescribed to improve symptoms and prevent asthma attacks or death.

## Seek out some 'breathing space'

*Staying clear of asthma triggers.*

While the exact causes of asthma are not known, it is likely due to a combination of genetic and environmental factors, including a family history of the condition, smoking, obesity, childhood viral airway infections, or allergic diseases such as allergic rhinitis and eczema. Some common triggers include common colds, environmental pollutants, cigarette smoke, dust mites and exercise. Triggers differ from person to person and usually pose less of a problem when the asthma is well-controlled.



Scan the QR code to find out more about the multi-disciplinary care for asthma patients by Changi General Hospital



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# Your Trusted Care Partner, Innovating Healthcare for Tomorrow

Changi General Hospital (CGH) is an academic medical institution caring for more than 1 million people in Singapore. A tertiary referral centre with over 1,000 beds, CGH is committed to medical research and education, clinical innovation and care for patients through a comprehensive range of medical specialties and services. Helmed by a multi-disciplinary, dedicated team of healthcare professionals, CGH consistently delivers positive health outcomes for patients.

CGH is ranked amongst Newsweek World's Best Hospitals 2022 (Singapore), Newsweek World's Best Specialised Hospitals 2022, and Newsweek World's Best Smart Hospitals 2021.

