

Raffles HealthNews

A PUBLICATION BY **RafflesMedicalGroup**



Getting to the Bare Bones

Corticosteroid Injections

How Long Does the Pain Relief Last?



The A to Z of Orthopaedic Diagnostic Test

12

Common Orthopaedic Myths Debunked



Can Food Help with Orthopaedic Issues?
Bone Broths Explained

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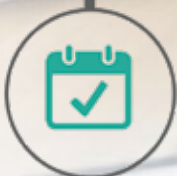
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HealthNews Contents

Issue 2 | 2019

LIVEWELL

10 COVER STORY

Getting to the Bare Bones

Understand more about the common orthopaedic conditions that affect various age groups and demographics.

14 Corticosteroid Injections

Find out the types of conditions that are suitable for corticosteroid injections and the risks involved.

16 Know Bones About It

Think you know your bones well? We debunk 12 common myths with the help from our experts.

18 Misconceptions of TCM treatments for Orthopaedic Ailments

Ever encountered a time when you sought help from a TCM practitioner for a bad sprain, only to have them turn you away? Read on to find out why.

20 Is it a Strain, Sprain or Fracture?

Is that a sprain, fracture or dislocation? What are the differences and how do you manage them?

23 Chiropractors

All you need to know about them and how it compares to physiotherapy.

EATSMART

24 Keeping Our Bones Healthy

Think that consuming calcium is the only way to keep our bones strong and healthy? Read on for more tips to optimise your bone health.

28 What Food Supplements Can Help with Bone and Joint Issues?

Are you susceptible to the side effects of standard western drugs to manage your condition? Here are several nutritional tips for a complementary and holistic approach.

SMARTHEALTH

30 What's New in Orthopaedic Surgery

Learn how these medical technology advancements allow patients to return to their lifestyles earlier after an orthopaedic surgery.

33 The A to Z of Orthopaedic Diagnostic Tests

There are more to orthopaedic conditions than meets the eye. Find out what diagnostic tests are used for different musculoskeletal injuries and conditions.

SHAPEUP

34 Neck and Back Relief in the Office

Relieve yourself of the aches and pains that result from sitting too long in front of the computer with these simple stretches.

36 Heel Pain Fixes

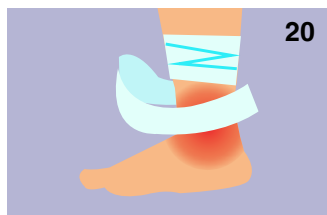
Feel a stabbing pain on your heel after a night's rest? Understand more about plantar fasciitis and let our expert guide you on some stretching and strengthening exercises to eliminate this condition over time.



10



28



20



16



34



14



24

Regulars

4 RMG Directory

5 Editor's Note

6 NewsBite

26 Upclose

38 Ask the Experts

39 Social Media

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Hello Readers!



Getting to the Bare Bones

Orthopaedic conditions that affect different age groups.

Page 10



Chiropractors

What you need to know about them.

Page 23



What's New in Orthopaedic Surgery

Innovations that allow faster recovery.

Page 30

Do you worry about getting older and suffering from diseases like osteoporosis or osteoarthritis; wonder about why a sports injury does not seem to be healing correctly? Are you confused about who to see first – a TCM physician, a chiropractor (page 23), an orthopaedic surgeon, a physiotherapist or a general practitioner (GP)? This issue of Raffles Health News will help answer some of these questions.

We are seeing more cases of musculoskeletal disorders (MSDs) in our clinics. Why? Two issues come to mind. Firstly, occupations: people are either in sedentary jobs (long hours sitting in front of a computer) or doing repetitive tasks (eg. lifting, fixing and washing). Another factor that contributes to increasing MSDs is our ageing population, and the fact that a lot of our older folks are still in the workforce. Read the cover story (pages 10 to 13) to learn about the common orthopaedic conditions that affect various age groups, and common myths (pages 16 to 17) that you might believe in.

For sprains and fractures, learn about the differences between the two (pages 20 to 21), and why you might be turned down by a TCM physician for some orthopaedic ailments (pages 18 to 19). Managing orthopaedic conditions in the clinic is not so straight forward as taking painkillers, muscle relaxants, and having a few days of medical leave. A good GP would try to ask you questions to get to the possible root cause of the issue. Sometimes, it involves collaborating with a physiotherapist to help manage your condition. In the Shape Up column, find out about some stretches and exercises that can bring relief to neck and back pain (pages 34 to 35), and plantar fasciitis (pages 36 to 37).

In more severe cases, you may be referred to an orthopaedic specialist for further investigations and undergo diagnostic tests such as X-ray and MRI (page 33). Sometimes, you may require a surgery to get better. Read page 30 to learn what's new in orthopaedic surgery and the available options.

When it comes to managing your own bone health, daily diet plays an important role. Learn what types of food will benefit you in the long run (pages 24 to 25), and get nutritional tips that aid your bone health (pages 28 to 29).

On a side note, I would like to introduce my colleague, Dr Hoo Kai Meng, Family Physician and Consultant of Raffles Medical, who will also join me as an editor for Raffles Health News.

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Dr Melvyn Wong
Deputy Medical Director
Raffles Medical



New Docs on the Block



Dr Low Teck Boon
Specialist in Respiratory Medicine
Consultant, Raffles Internal
Medicine Centre

Dr Low's clinical interests include chronic cough, asthma, chronic obstructive pulmonary disease, bronchiectasis, lung cancer and advanced diagnostic bronchoscopy.

After receiving his honours degree, Dr Low subsequently obtained his Doctorate of Medicine by research from the Royal College of Surgeons in Ireland.

Dr Low has been awarded the SingHealth Excels (RiSE) award and has published several peer-reviewed manuscripts. He also remains a key reviewer for many high impact peer-reviewed journals.



Dr Fong Sau Shung
Specialist in General Surgery
Consultant, Raffles Surgery Centre

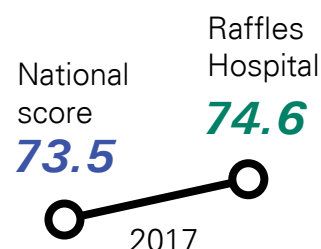
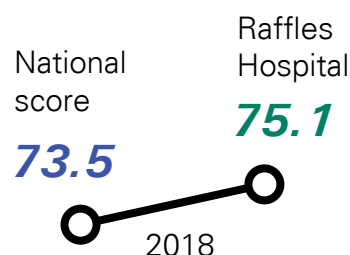
Dr Fong's area of specialty is in minimally invasive surgery, including robotic surgery and advanced transanal endoscopic techniques. He practises minimally invasive lateral pelvic lymph node dissection for involved internal iliac lymph nodes in rectal cancer.

After receiving his postgraduate Master of Medicine degree, Dr Fong completed a fellowship programme under the hospital manpower development programme, for the treatment of advanced and recurrent colorectal cancer in the United Kingdom.

Dr Fong is also a founding member of the Robotic Society of Singapore.

CSISG 2018 Results

Raffles Hospital exceeded the national score in the Customer Satisfaction Index of Singapore 2018, and ranked the top position under the private hospitals category.



Raffles Health Insurance @ Raffles Hospital



Need help understanding health insurance? Approach our friendly advisors from Raffles Health Insurance in their newly-opened enquiry office. We will be able to advise you on the recently launched Raffles Shield and the benefits of integrated shield plans.

Raffles Shield is a Medisave-approved Integrated Shield Plan (IP) that provides coverage for hospital and surgical expenses. It comprises MediShield Life, a national health insurance plan administered by the Central Provident Fund Board, and an additional private insurance coverage administered by Raffles Health Insurance that enhances the basic coverage provided by MediShield Life.

Visit the Raffles Health Insurance's office that is conveniently located at Raffles Hospital Level 1 (near the concierge counter). You may also contact our advisors at 6311 1564 or shield@raffleshealthinsurance.com.

Raffles Connect: Your Comprehensive Healthcare Platform

Raffles Connect offers a comprehensive suite of services to its patients by leveraging Raffles Medical Group's digital assets, such as the electronic medical record system.

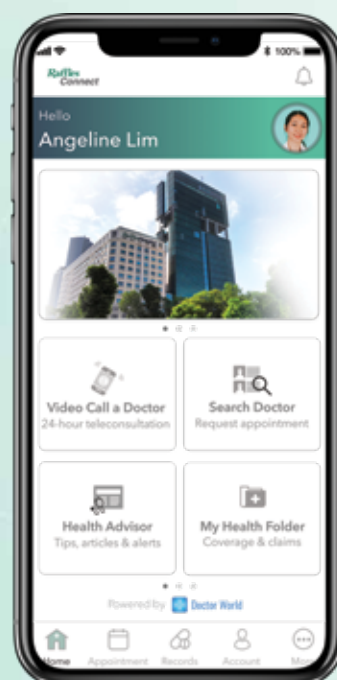
Raffles Connect allows you to book medical appointments with a Raffles doctor, access your personal health records, stay updated with your health progress, and retrieve information about your previous appointments. With the touch of a button, you can get connected to emergency services, purchase health supplements, and select Raffles health services conveniently. Through the personalised 'Health Advisor', get empowered with knowledge on healthy living and travel health.

Another important feature is the round-the-clock telemedicine service. You can video consult a Raffles doctor who has access to your medical records anytime, anywhere. What's more, your prescribed medication will be delivered directly to your doorstep via the one-stop paperless and cashless platform. Your medical certificates or referral letters will also be emailed to you for a seamless experience.

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Raffles Specialist Centre Official Opening



Standing at a height of 22 storeys and occupying 220,000 square feet, the adjoining Raffles Specialist Centre was officially opened by Deputy Prime Minister Tharmar Shanmugaratnam on 12 March 2019. Over 200 guests including corporate clients, business partners and friends from the media turned up for this event.

Dr Loo Choon Yong, Executive Chairman, added that Raffles Specialist Centre has increased its floor area by 70 per cent, enabling Raffles Medical Group to grow its practices and hospital facilities over the next 10 years. The new capacity of Raffles Hospital and Raffles Specialist Centre will allow the Group to better serve patients with integrated shield plans, under all the different shield insurers, including those under Raffles Shield.

Raffles Specialist Centre houses 26 multi-disciplinary specialist clinics, traditional Chinese medicine and clinical support units.



Raffles Medical Group Gives Back

In celebration of this joyous occasion, the Group donated a total of S\$50,000 to four charities that have contributed to a better Singapore in their own ways. They were namely Ling Kwang Home for Senior Citizens, Moral Home for the Aged Sick, Sree Narayana Mission Home, and The Straits Times School Pocket Money Fund. The donations will be matched dollar for dollar through the Bicentennial Community Fund. This means the four charities will receive a total of \$100,000.



New Raffles Medical Clinic in Nanjing is Now Operational

Opened on 18 March 2019, our Raffles Medical clinic in Nanjing is now serving patients. The types of services provided include general medicine, vaccinations, health check services for visa application, emergency services and physiotherapy.

Raffles Medical - Nanjing

Ground floor of Crown Plaza Hotel,
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Fax: 025-84802696

Opening Hours

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Sat: 8.30am - 12.30pm



For appointments, search for “Raffles_Medical” in WeChat.

Moving into China - Annual Report 2018



The theme for Raffles Medical Group's Annual Report 2018 is 'Moving into China'. It celebrates the important milestone of the opening of Singapore's first international tertiary hospital in China – Raffles Hospital Chongqing.

This marks the Group's bold new venture into the Chinese healthcare market of 1.4 billion people; allowing the Group to expand its services, and bring the trusted Raffles brand of care to even more people in China.

*Download your copy
of the report.*



Raffles Medical Group Annual General Meeting

Raffles Medical Group's 30th Annual General Meeting was held at Suntec City Convention & Exhibition Centre on 26 April 2019 at 4pm. There were more than 340 people who turned up at the meeting. It was an interactive afternoon with many shareholders who came to show their support, and some who provided constructive feedback about RMG.



More than 340 people attended the meeting



Raffles Medical Group's board of directors

Getting to the **BARE BONES**

Common Orthopaedic Problems

Musculoskeletal health is crucial as our muscles and bones act as the structural framework of the entire body. I speak to the specialists from Raffles Orthopaedic Centre about the top orthopaedic conditions that affect various age groups and demographics.

By Magdalene Lee

CHILDREN AND TEENAGERS

BOWLEGS

An exaggerated bending inwards of the legs from the knees down (banana shaped), bowlegs or genu varum is usually inherited. It is normal in infants and corrects itself as your child grows up. Bowlegs beyond the age of six or bowleg only on one side could be a sign of a larger problem, such as rickets or Blounts disease that affects the growth plate. For such cases, consult an orthopaedic surgeon.

KNOCK-KNEES

Most kids show a moderate tendency towards knock-knees between ages three to six, as the body goes through a natural alignment shift. Treatment is seldom required because their legs usually straighten out on their own. Knock-knees that are severe or more obvious on one side may require treatment. In rare cases where children experience pain or difficulty running, surgery may be considered after the age of 10.

IN-TOEING

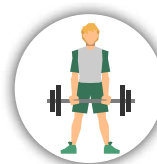
Children who in-toe and trip often may have the lower part of their leg rotated inwards, or have a greater-than-normal bend in the upper part of the leg causing the upper leg to rotate inwards. In some, in-toeing can be related to muscle imbalance conditions like cerebral palsy. In-toeing should not affect your child's walking or running, and usually resolves as your child grows up and develops better muscle control and coordination.



WEEKEND WARRIORS

Torn Ligaments, Fractures and Sprains

With a full-time job and family commitments, you may not have the opportunity to exercise during the week. Engaging in physically demanding sporting activities on weekends can lead to a higher risk of traumatic sports injuries, including torn ligaments, fractures and sprains. Warming up prior to exercise and not over-exerting your body can help protect it. Choose to go slow so you can exercise for a long time rather than to over-exert and be thrown out of action for life.



Dr Gowreeson Thevendran
Specialist in Orthopaedic Surgery

ELDERLY

OSTEOARTHRITIS

Osteoarthritis affects about one-third of the elderly population. A degenerative disease caused by deterioration of your cartilage, osteoarthritis typically affects weight bearing joints, knees, hips and lower back. The friction from the bones can make it painful to perform everyday activities. Unfortunately, there is no cure for osteoarthritis. If you experience pain, resting, exercising, and diet control may help. There are a range of medications to reduce pain and inflammation. For mild to moderate osteoarthritis, arthroscopy can be considered. However, for severe cases, joint replacement may be your best treatment option.

FRACTURES

As you age, your bone mineral density decreases and this leads to weaker and brittle bones. This is more common in post-menopausal women although elderly men are not spared. Combined with the tendency of unsteady balance and vision problems in the elderly, you may experience a fall and heightened risk of fractures. Consider strength training exercises to improve your bone strength that can decrease the likelihood of fracturing a bone.

OSTEOPOROSIS

Do you know that your bone mass peaks at about 30 years of age and will decrease thereafter? As such, many elderly experience increased risk of osteoporosis – a bone disease that includes decreased bone density and low overall bone mass. You can prevent osteoporosis with vitamin D and calcium supplementation, and regular weight-bearing exercise. Treatments are available to slow down the rate of bone loss and prevent injury.



Dr Ganesan Naidu
Specialist in Orthopaedic Surgery

MEN

ANKLE

The commonest soft tissue ankle injury is serious ankle sprains. While these are often treated non-operatively, surgical treatment may be necessary if the ankle remains chronically unstable. Rupture of the Achilles tendon is another catastrophic injury that can be treated surgically. This injury often occurs when playing tennis, badminton, basketball and beach volleyball.

ELBOW AND SHOULDER

Chronic biceps tendinitis sometimes occurs in the elbow. Biceps tendon rupture occurs proximally and is often due to lifting activities.

Rotator cuff tears are common soft tissue injuries in the shoulder and are encountered in a variety of sports. Sometimes, these injuries would require surgery.



Dr Sittampalam Krishnamoorthy
Specialist in Orthopaedic Surgery

CHRONIC BACK PAIN

Causes of back pain include strain, medical conditions, and poor posture. Chronic back pain is diagnosed when you experience pain for more than three months. Physiotherapy and exercise can help, as with better office ergonomics. You can also consider icing the affected area for not more than 20 minutes at a time or for tired, stiff and tight muscles; treat it with heat for 30 to 40 minutes.



Scan to read more about office ergonomics.



Dr David Wong
Specialist in Orthopaedic Surgery



WOMEN

SPRAINS

Sprains happen twice as often to women than men due to differences in the anatomy. To prevent sprains, avoid wearing flip-flops and non-supportive shoes, especially when walking on uneven surfaces. High heel injuries are also on the rise, so consider ditching the high heels especially when walking or standing for long hours. Should you get a sprain, you can apply the RICE (Rest, Ice, Compress and Elevate) principle to aid your recovery.

TORN LIGAMENTS

Women are three to eight times more likely to have Anterior Cruciate Ligament (ACL) tears than men. You can blame your hormones for that as it affects joint laxity. Other factors may include anatomical differences in the width of the pelvis, knee articulation and leg alignment. Avoidance of high-risk activities and good shoes can go a long way to protect your ligaments. In the unfortunate situation that you tear your ligament, surgery followed by physiotherapy can help.

OSTEOARTHRITIS

You can thank your hormones for protecting you from osteoarthritis, that is until menopause strikes. Bone density takes a dive after menopause as a result of estrogen loss. This condition makes your bones more susceptible to fractures. Vitamin D and calcium intake, as well as strength training, can help build bone density.

Read this article on exercises to rehabilitate your sprain ankle.



Dr Bernard Lin
Specialist in Orthopaedic Surgery



PREGNANCY

PELVIC GIRDLE PAIN (PGP)

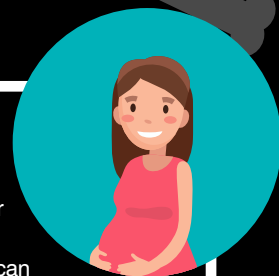
Affecting one in five pregnant women, PGP occurs due to misalignment or stiffness of your pelvic joints at either the back or front of your pelvis. PGP is not harmful to your baby, but it can cause severe pain around your pelvic area and make it difficult for you to get around. Physiotherapy and acupuncture can help manage the condition. Physiotherapy aims to relieve or ease pain, improve muscle function and both the position and stability of your pelvic joint.

LOW BACK PAIN

More than half of pregnant mummies will experience low back pain due to the weight of the baby and the awkward distribution of weight leading to muscle fatigue and development of muscle spasms. Treating low back pain is difficult during pregnancy, so having a strong back before pregnancy can help prepare you for the physiological changes ahead. Consider back-strengthening exercises during the first and second trimesters of your pregnancy. Thankfully, low back pain seldom persists post-delivery.



Dr David Wong
Specialist in Orthopaedic Surgery



CARPAL TUNNEL SYNDROME & HAND / WRIST PAIN

Hormone fluctuation (oestrogen) during pregnancy may cause water retention around the tendons at the wrist. Puffy tendons can compress the median nerve at the wrist (carpal tunnel syndrome), causing numbness of the fingers. Swollen tendons of the thumb and fingers may cause tightness and pain during movement, also known as trigger finger and De Quervain's tenosynovitis.

During pregnancy, mothers are advised to use a wrist brace to prevent excessive wrist flexion, so as to avoid nerve compression. Injections, although effective, are generally avoided during pregnancy and breastfeeding as the medicine may affect the baby through the mother's blood stream or breast milk. Wrist pain due to De Quervain's may persist due to hormone (prolactin), during breast-feeding because of the wrist position while nursing and caring for the baby. These conditions usually improve after birth and should resolve after cessation of breastfeeding.



Dr Anthony Foo
Specialist in Hand Surgery



ATHLETES

PATELLOFEMORAL SYNDROME / KNEE INJURIES

The patellofemoral joint takes from five to seven times the body weight of a person when you jump and land on your knee or run. With your knee bending over one million times a year, the patellofemoral joint can often be overused.

Patellofemoral pain syndrome can be treated with muscle strengthening, quadriceps re-training or selective tapping of the knee. However, if you have a malalignment in the knee then you should cut down on running and jumping activities. When the pain eventually disappears, you can then try to moderate the exercise and increase the intensity at a gradual pace.



SHOULDER INJURIES

The shoulder joint is the most mobile joint in the body and this mobility comes with a cost. The shoulder joint is the most frequently dislocated joint in the body. The cause of dislocation is often a result of the position of the arm and the severity of the force. Often your arm is in a "ball throwing" position when the dislocation occurs. If you have ligamentous laxity, you may be more prone to getting dislocations.

Rotator cuff tendinitis is another common problem in overhead athletes. Sports like baseball, softball, badminton, swimming, tennis, basketball, volleyball, rock climbing and weight lifting can result in rotator cuff tendinitis. Inadequate stretching prior to the game, repetitive actions or over extension of the shoulder during the game can lead to rotator cuff tendinitis.

Inflammation medication for rotator cuff tendinitis can help. However, if the pain persists, a cortisone injection can be given. Arthroscopic repair and surgery can also help relieve the pain and provide a functional range of motion.

TENNIS ELBOW

Tennis elbow is an inflammation of the tendons that join the forearm muscles on the outside of the elbow. Causes include overuse resulting in pain and tenderness on the outside of the elbow. If pain persists despite after some rest, you may be experiencing nerve damage. If left untreated, tennis elbow may become chronic and last from months to years. Treatment thus needs to focus not only on pain relief, but also muscle weakness and wrong form correction.

9 TIPS TO PREVENT SPORTS INJURY

1. Don't be a "weekend warrior". Try to maintain a moderate level of activity throughout the week.
2. Learn to do your sports right. Proper form can reduce your risk of "overuse" injuries.
3. Accept your body's limits. You may not be able to perform at the same level you did in the past. Modify activities as necessary.
4. Increase your exercise level gradually.
5. When jumping, land with your knees bent.
6. Warm up not just before vigorous activities like running, but also before less vigorous ones such as golf.
7. Stretch before an activity. Stretch the Achilles tendon, hamstring, and quadriceps areas and hold the positions.
8. Cool down after vigorous sports. For example, after a race, walk for five minutes for your pulse to reduce gradually.
9. Wear properly fitting shoes that provide shock absorption and stability. Change your shoes regularly if you run often, approximately 500km for one pair of shoes.



Dr Lim Yeow Wai
Specialist in Orthopaedic Surgery

CORTICOSTEROID INJECTIONS

By Dr Hoo Kai Meng

Have you ever complained about pain in your elbows, heels or wrists that lasted for weeks, and received an injection to relieve the pain from your family physician? This injection would most likely be a corticosteroid injection. Learn all about it here.





What are Corticosteroids?

Corticosteroids are medicines usually given with a local anaesthetic as an injection into the joints or surrounding tendons to decrease inflammation.

Conditions Suitable for Corticosteroid Injections

Tendinitis – inflammation or irritation of a tendon. It includes:

- Elbow tendonitis (tennis elbow)
- De Quervain's tendonitis (painful wrist)

Plantar fasciitis (painful heel) – one of the most common causes of heel pain that involves an inflammation of a thick band of tissue that runs across the bottom of your foot and connects your heel bone to your toes.

Bursitis – a painful condition that affects the small, fluid-filled sacs, common locations are in the shoulder, elbow and hip.

Arthritis – inflammation in one or more joints caused by conditions such as gout, psoriatic arthritis, reactive arthritis and rheumatoid arthritis.

What are the Risks Involved?

Cortisone injections are generally safe but there are a few potential risks.

- 1 Increase in pain in the first 24 to 48 hours. Known as cortisone flare reaction, it usually subsides, and can be relieved by applying an ice pack and painkillers (NSAID's).
- 2 Infection. The doctor will take all steps to prevent infection at the injection site but it sometimes occurs.
- 3 Skin pigment changes. The skin colour about the injection site may lighten.
- 4 Fat tissue loss. There may be a loss of fatty tissue surrounding the injection site.
- 5 Tendon rupture. This is not common but the possibility of this happening is one reason that the number of times a person can receive the injection is limited.
- 6 Elevated blood sugar. Diabetic patients should inform their doctors prior to the injection as their blood sugar may rise. This is rare as the injection is localised.
- 7 Facial flushing. This may occur in 15 per cent of patients who receive a cortisone injection. It may be distressing but will resolve spontaneously after several days.

Frequency of Injection

In general, you should not get corticosteroid injections more than twice a year, as there is concern that repeated injections might cause complications such as the cartilage damage or tendon rupture.



Know Bones About It

How well do you know your bones? We debunk 12 common myths with the help of an expert panel. **By Magdalene Lee**

Expert Panel



Dr Anthony Foo
Specialist in Hand Surgery & Consultant, Raffles Orthopaedic Centre



Dr David Wong
Specialist in Orthopaedic Surgery & Consultant, Raffles Orthopaedic Centre



Dr Ganesan Naidu
Specialist in Orthopaedic Surgery & Consultant, Raffles Orthopaedic Centre



Dr Chong Yong Yeow
Specialist in Rheumatology & Consultant, Raffles Internal Medicine Centre



I am too young to have bone problems.

Dr Foo: Bone health issues affect all ages. Although bone disorders are rare in the young, nutritional deficiency, hormone, and antibody dysfunction can compromise bone metabolism, growth, and normal development of the body. Risk factors and disease processes should be identified and treated early so that children, teenagers, and young adults can enjoy normal physical and social development.

Cracking your knuckles will cause arthritis.

Dr Foo: Although there have been several studies to elucidate the cause of the popping noise and sensation from cracking knuckles, no conclusive findings satisfactorily explain this phenomenon. Degenerative arthritis is linked to cartilage degradation, injury, and repetitive loading of joints.



Physiotherapy does not work.

Dr Foo: Physiotherapy is not merely a massage service or a physical training session. Physical and occupational therapists are professionals who understand the mechanics of the body in health and disease states, and are trained to aid the recovery process following injury and disease states. Good therapists establish good rapport with patients to understand their functional needs and goals, while supporting them physically and mentally to achieve these. Rehabilitation is the most important and longest part of the journey to recovery. The key to successful physiotherapy is being consistent with the sessions and listening to your therapist.

It is not broken if you can move or walk on it.

Dr Foo: Bones, joints, ligaments, and tendons are the key structures of movement and support of the body. Our bodies are designed with multiple fail-safe mechanisms and are equipped with the ability to adapt to injury and deformities; hence humans are still able to move despite fractures or ligament tears. Injury of a non-critical bone or ligament may manifest with mild pain or swelling during movement. Some injuries may be innocuous at first, but over time, the deformity worsens along with the function of the part. Pain and swelling are more accurate indicators of injury rather than the ability to move or walk.



Sit straight to avoid back problems.

Dr Wong: While hunching is bad for your back, sitting up straight for too long without a break can also cause back strain. Make sure your chair in the office is at a height where your knees are at a 90-degree angle, your feet can rest flat on the floor, and you have proper lower back support. Take a quick walk several times a day and ensure to stand up and stretch to avoid stiffness or injuries.



Sitting is as dangerous as smoking.

Dr Wong: A desk-bound job may lead to long hours of sitting, but as long as you stay active outside of work, you should be fine. So, balance that sedentary lifestyle with exercise, and don't forget to get up and stretch after every half an hour or so of sitting.

Surgery is invasive and will lead to a lengthy and expensive hospital stay.

Dr Wong: With medical advancements nowadays, you can expect your surgery to be less invasive, often with only two small holes. With minimally invasive techniques, you can also expect your stay at the hospital to be reduced. Early treatment would allow for options that include non-surgical ones, so don't put off your doctor's visit.



Running is bad for your knees.

Dr Ganesan: Research shows that recreational runners do not have increased risk of having knee arthritis symptoms or other orthopaedic problems. On the contrary, running may strengthen the muscles that stabilise the knee, and this may help prevent injuries and arthritis.

High heels wreck your feet.

Dr Ganesan: Wearing high heels all the time can shorten your Achilles tendon, causing pain and injury. Similarly, flat shoes can also irritate your feet. Shoes do not prevent or cause bunions, as they are mainly hereditary. Instead, vary your heel heights and shoe type throughout the week. And if they hurt, stop wearing them.



Arthritis is just a part of ageing and I have to live with the pain.

Dr Chong: Arthritis is not just a disease of the elderly. Many types of arthritis occur in younger individuals, including teenagers and adolescents. For degenerative types of arthritis eg. osteoarthritis, you can prevent or lessen arthritis before it worsens, so never accept it as an inevitable part of ageing. A joint replacement can help so that you do not have to live with the pain or be confined to a bed or a wheelchair.



Misconceptions of TCM treatments for Orthopaedic Ailments

By Shermaine Lee



Tay Jia Yin
TCM Physician
Raffles Chinese Medicine



Tan Weii Zhu
TCM Physician
Raffles Chinese Medicine

When you sprain your ankle or wrist, do you immediately think of visiting your TCM physician for *Tuina* or acupuncture treatment to help alleviate the pain and swelling? Well, before administering any forms of treatment, the TCM physician will first need to assess the condition of your injury and joint function. We speak to TCM Physicians Tan Weii Zhu and Tay Jia Yin from Raffles Chinese Medicine to find out some misconceptions about TCM treatments.

According to Physician Tan Weii Zhu, TCM views any external trauma or injury to the body as disruptive to the body's *Qi* (energy) and blood circulation. It is this resulting stagnation of *Qi* and blood flow at the affected areas that causes pain, swelling and restriction of movement. It should also be noted that if the stagnated *Qi* and blood persist at the affected areas, it results in slower healing, prolonged pain and swelling. This is because the *Qi* and blood cannot flow through and nourish the local area, and this is also known as "stagnation resulting in pain".

TUINA

Tuina is a form of massage technique that encompasses pressing, rubbing, kneading and rolling on different meridian points along the person's body to unblock and stimulate the flow of *Qi* and blood. This technique requires the use of knuckles, palms and fingertips to massage the body to promote healing and wellness.

However, it is important to understand that *Tuina* is not a one-stop solution to all soft-tissue and bone-related ailments. The TCM physician will need to first assess the severity of your injury, and determine the root cause of the problem, before recommending if it is suitable to proceed with *Tuina*.

GUA SHA

Also known as scrapping, this massaging technique bears similarities to *Tuina*, and is used to relieve joint and muscle pain by breaking down scar and connective tissues. The only difference is that *Gua Sha* encompasses a tool to scrap the skin in long strokes to create pressure on the skin. This repetitive motion causes microtrauma, which are minor bruising that appears as red or purple spots, when the body responds to the treatment.

It is usually recommended for treatment to be administered at least 24 to 72 hours after injury. However, it must be noted that certain conditions such as bone fractures, dislocations, and ligament tears are not suitable for *Tuina* and *Gua Sha* treatments.

Factors a TCM practitioner will consider before administering *Tuina* / *Gua Sha*:

- Cause of injury
- Affected area
- Conditions of limb and joint function
- Swelling

ACUPUNCTURE

As acupuncture treatment involves the use of needles, people who have never experienced acupuncture will probably have one overriding question: "Does it hurt?"

In fact, fine needles about the width of a strand of human hair are used for acupuncture treatments. When these needles are inserted into the skin, the pain is very minimal and patients may feel a slight sensation on places where the needles are administered. Typical sensations during acupuncture range from no feeling at all, to tingling, to electrical "buzzing", to a dull ache, explained Physician Tay Jia Yin.

Acupuncture works by directing *Qi* and blood flow to a particular meridian pathway that is affected by the trauma or injury. It is effective in reducing pain and swelling at the affected areas. Acupuncture can also be complemented with herbal medication and *Tuina* for better recovery.

The treatment aims to:

- 1) Promote blood circulation and remove blood stasis, thereby reducing pain and swelling.
- 2) Help the muscles and joints to relax, thereby restoring mobility and function.

In some cases, acupuncture will not be suitable or should be applied with extra caution. These may include: open wounds, recent fractures, blood disorders, abdomen area for pregnant women and certain points on the legs.

It is also important to exclude fractures, dislocations and ligament tears.

Is it a Strain, Sprain or Fracture?

Know the differences with Dr Goh Ee Shaun, Specialist in Emergency Medicine & Consultant, Raffles 24 Hour Emergency.

By Queenie Ho

Fracture



DIFFERENCE

A break or a crack in a bone. Occurs usually in a fall or accident.

COMMON LOCATION OF INJURY

Wrist, ankle and hip.

SYMPTOMS

Depending on the location and severity of injury.

- Pain
- Swelling
- Bruising
- Deformity
- Inability to use the limb

Dislocation



DIFFERENCE

Occurs when two bones are out of place at the joint that connects them. Dislocation may cause injury to nerves and blood vessels.

COMMON LOCATION OF INJURY

Shoulders and fingers. Other sites include elbows, knees and hips.

SYMPTOMS

- Visibly deformed or out of place
- Swollen or discolored
- Intensely painful
- Immovable

CAN IT BE TREATED AT HOME?

Requires immediate medical attention. Seek prompt medical attention for elbow, knee, and hip dislocations because nerve damage may occur. If there is a suspected fracture or dislocation, try to immobilise the affected limb.

PREVENTION

- Do what you can to prevent falls as it is the main cause of fractures.
- Many fractures are a result of osteoporosis – a loss of calcium in bones. Get enough calcium and vitamin D.
- Do weight-bearing exercises such as walking to keep bones strong and healthy.

PREVENTION

- Take care to avoid falls.
- Wear protective gear when you play contact sports.
- Exercise regularly to maintain strength and flexibility in your joints and muscles.

Strain



DIFFERENCE

An injury to a muscle or the band of tissue that attaches a muscle to a bone.

COMMON LOCATION OF INJURY

Lower back and in the hamstrings (muscles at the back of the thigh).

SYMPTOMS

- Pain or tenderness
- Redness or bruising
- Limited motion
- Muscle spasms
- Swelling
- Muscle weakness

CAN IT BE TREATED AT HOME?

Mild strains can be treated at home. See a doctor if your symptoms worsen despite treatment, especially if your pain becomes intolerable, or you experience numbness or tingling.

Sprain



DIFFERENCE

Stretching or tearing of ligaments (the tough bands of fibrous tissue that connect two bones together in your joints).

COMMON LOCATION OF INJURY

Ankle.

SYMPTOMS

- Pain
- Swelling
- Bruising
- Limited ability to move the affected joint
- Hearing or feeling a "pop" in your joint at the time of injury

CAN IT BE TREATED AT HOME?

Mild sprains can be treated at home but see a doctor if you:

- Cannot bear weight on the affected joint.
- Have pain directly over the bones of an injured joint.
- Have numbness in any part of the injured area.

FIRST AID

RICE Treatment



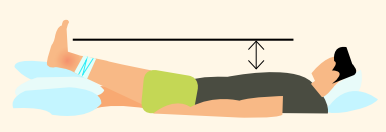
Rest the affected area, if you are midway through a workout, stop putting pressure on the affected area.



Ice the affected area as soon as possible to limit the swelling. Wrap the ice in a towel before applying to your skin.



Compress the affected area to prevent swelling.



Elevate the area above your heart. Gravity will help reduce swelling.

Learn how you can treat sprains from the First Aid series on the Raffles Hospital YouTube Channel.

PREVENTION



Strengthening muscles around joints

Regular conditioning and stability exercises can build a strong skeletal framework and help prevent injuries.



Warm up properly before exercise

Warming up the muscles increases their range of motion and helps to avoid trauma and tears to connective tissue.



Wear appropriate footwear

Shoes with proper support can help to protect the ankle and knee joints.



Be aware of your environment

Watch out for slippery or uneven surfaces, or obstacles that may cause an accident.



Take breaks

Sitting or standing in a single position for too long, or performing repetitive actions can put undue strain on the muscles. Take regular breaks and stretch to release the tension.

Feeling Pain?



Headaches

Tension headache, migraine, menstrual headache



Ankle pain

Ankle sprain



Elbow pain

Tennis elbow



Wrist & Hand pain

Trigger finger, carpal tunnel syndrome



Foot pain

Plantar fasciitis



Lower back pain

Herniated disc, sciatica, muscle strain



Neck & Shoulder pain

Cervical spondylosis, frozen shoulder, neck and shoulder stiffness, rotator cuff injury



Knee pain

Osteoarthritis, meniscus injury



Hip pain

Degenerative and post-surgery pain

TCM helps manage your pain by improving *Qi* and blood flow



Acupuncture



Herbal Medicine



Acupressure



Cupping



Let us help you smile again!



Scan code to find out more about each type of treatment and the conditions they are suitable for.

Talk to us at (65) 6311 2388 or email to chinesemedicine@rafflesmedical.com.



Chiropractors

What you need to know about them.

By Dr Melvyn Wong



Who are they?

Chiropractors are practitioners of an alternative form of healthcare that specialises in treating musculoskeletal disorders. They are more well-known for treating neck and back pain with forms of spinal manipulation that they call corrections to fix 'subluxation' in joints. However, there is no strong evidence that chiropractic treatment is helpful in the long run.



How Does It Compare to Physiotherapy?

Sessions for adjustments or corrections may take place as often as needed. Each chiropractic treatment usually lasts no more than five minutes. A typical physiotherapy session can last up to 45 minutes or more, as the session can be a combination of massage, heat therapy, stretching exercises and education.



Is It Safe?

Be cautious especially if you have been diagnosed with inflammatory joint disease, arthritic disease. It is not recommended too if you are on blood thinning medications, or have a history of cardiovascular / cerebrovascular disease.



Are They Medical Doctors?

They are not medical doctors. They receive the training in chiropractic schools and receive a title of 'Doctor of Chiropractic'. Their practices are currently not regulated in Singapore.



Is It Expensive?

For the recommended length of chiropractic treatment, which tends to be longer, it could be expensive in comparison with more main stream alternatives like physiotherapy. This may vary from clinic to clinic, but a typical consultation initially may cost around \$75. Each adjustment session may cost \$75 to \$100.



Does Insurance Cover It?

In most cases, insurance does not cover for complementary or alternative medicine. In policies that do cover such treatments, you are still required to consult a primary care physician to obtain a referral letter. It is unlikely that a medical doctor would recommend, let alone write you a referral, to see a chiropractor. The lack of evidence of its utility, safety concerns, and the treatment being perceived as not mainstream would prevent most doctors from referring you to one.

Keeping Our BONES Healthy

Our bones can become brittle as we age. Weak bones break more easily and osteoporosis is a condition when the density and quality of our bones are reduced. Osteoporosis is known as a silent disease because it can develop without any symptoms, until a fracture occurs. Find out how you can prevent and manage osteoporosis by eating the right food.

By Queenie Ho

Calcium

Calcium is essential for bone health and helps prevent bone loss and osteoporotic fractures in the elderly. The calcium requirement of an adult aged 18 to 50 is 800mg per day while those aged 51 and above require 1,000mg to 1,200mg of calcium daily.

Age Group	Amount of Calcium Required
Adolescents (10 to 18 years)	1,000mg
Adults (19 to 50 years)	800mg
Adults (51 to 70 years)	
Males	1,000mg
Females	2,000mg
Adults (71 and above)	
Males	1,200mg
Females	1,200mg
Breastfeeding / Pregnant	1,000mg



Calcium can be found in milk, calcium fortified soy milk, tofu, sardines (with bones), green leafy vegetables, fruits and almonds and almond paste. "If you are not getting enough calcium in your diet, consider a calcium supplement. However, calcium should not be taken alone. Vitamin D is essential for proper calcium absorption. If you do not have vitamin D deficiency, 600IU to 1000 IU of vitamin D will be sufficient," said Ms Vanessa Png, Pharmacist, Raffles Health.



Fruits, Vegetables and Whole Grains

Fruits and vegetables are generally lower in calories and fat, and are high in fibre, essential vitamins and minerals. They also contain phytochemicals – substances that can help protect against a variety of diseases including osteoporosis.

Aim to eat four or more servings of vegetables and three servings of fruit each day. Fruits and vegetables are excellent sources of magnesium, potassium, and vitamins C, K and A, which are crucial in maintaining bone health.

Choose whole grains whenever possible as they contain more nutrients, especially magnesium and fibre, than refined grains.



Limit Salt, Additives, Alcohol and Caffeine

Too much salt in your diet causes high blood pressure and also increases the amount of calcium you excrete from your body from urination. Aim for a daily limit of 2,300 mg of salt, which is roughly the amount of one teaspoon.

Phosphorus is used as an additive in many processed foods. Too much phosphorus in your diet can interfere with how much calcium is absorbed through your small intestine. Check the labels on the processed foods the next time you are at the supermarket and choose fresh foods whenever possible.

If you consume alcohol, do so in moderation. For healthy adults, that means up to one drink a day for women of all ages and men older than 65 years old, and up to two drinks a day for men who are 65 years and younger. Consuming more than the recommended amount hastens bone loss and pairing alcohol with meals slows calcium absorption as well.

Did you know that caffeine contributes slightly to calcium loss during urination too? Substitute caffeinated beverages for milk and other healthy drinks. Moderate caffeine consumption, which is about two to three cups of coffee a day, will not be harmful as long as your diet contains adequate calcium.

Do I Have Osteoporosis?

Osteoporosis can happen to anyone. You are at higher risk if you:

- Are a female
- Had a previous non-violent fracture
- Had early menopause before the age of 45
- Are underweight
- Smoke
- Consume more than two alcoholic drinks a day
- Live a sedentary lifestyle
- Have a low calcium and vitamin D intake

A bone density mineral (BMD) test will determine if you have osteoporosis. It makes use of X-rays to measure how many grams of calcium and other bone minerals are packed into a segment of bone. The bones that are most commonly tested are of the spine, hip and sometimes the forearm.

Osteoporosis is diagnosed if your BMD measurement falls below a critical threshold of 2.5 SD (standard deviation) from the average BMD of young healthy people.



An Angel Among Us

Working as a nurse for eight years, and being able to do her best for every patient is what keeps Ms Nur Anira Bte Redzuan, Senior Staff Nurse at Raffles Orthopaedic Centre, motivated every day. I spoke to her to find out why this 28-year-old, who appreciates flowers, enjoys a good cup of tea, and loves playing with cats, is passionate about nursing.

By Joanna Lee





Helping a patient with wound dressing



A family photo after a convocation ceremony



Selfie time with her pet cat

I decided to become a nurse because...

Unlike some, I did not have a tradition or history of family members working as nurses. To be the first in my family, I felt very honoured. I wanted to do something that was challenging, interesting, and would be able to make a difference in people's lives. I am very passionate about the healthcare profession, and see it as a way of contributing positively to the society.

When you see your loved ones fall ill, being equipped with the know-how to provide care to them, this contributes a feeling of satisfaction. I decided to further my training in nursing and went on to obtain a Bachelor of Nursing in 2018, as I wanted to pursue it as my lifelong career.

As a nurse at the orthopaedic centre, I...

Provide care to patients who have conditions affecting the bones, ligaments and muscles. I help them to remove their cast, change wound dressing, and administer medications as prescribed by the doctors. In addition, I educate patients on the use of orthopaedic equipment that is ordered to assist them in their condition. Apart from these, I also assist in scheduling surgeries for patients.

One little known fact about working as a nurse in the orthopaedic centre is...

On average, we see 80 to 90 patients a

day. Despite working in a busy and fast-paced environment, I am thankful for having supportive colleagues with good teamwork. We constantly keep a look out for one another and proactively offer help when needed.

The most challenging part is...

Dealing with the sense of helplessness. While it is my job to provide as much care and comfort as possible, there are times when I have reached my limit and could not do more. Seeing my patients in pain or feeling miserable, and knowing there's nothing I could do to help is the most challenging thing I sometimes have to deal with.

The most rewarding thing is...

In nursing, every day is a learning process, and there are many things I find rewarding as a nurse. One of them is being a part of my patients' recovery journey, especially seeing them get back on their feet after a surgery. It is both encouraging and rewarding to see their condition improve. To be able to create that personal connection with each of them is both humbling and inspiring.

The most memorable case that I've encountered happened when...

I was working at Singapore General Hospital in the rehabilitation ward prior to joining Raffles Hospital. There was a patient who had a limb amputated due to diabetes. He was given a prosthetic leg, and every day he had to undergo physiotherapy to improve his gait and balance. Although he started

having difficulties in the beginning, he managed to pull through till the day he was discharged. From his determination and sheer will power, I've learnt to never give up, and never stop believing.

Important advice that I usually give my patients are...

- If there is swelling in the limb, always keep it elevated.
- Take pain medication as instructed to reduce pain and swelling.
- To keep cast and dressing dry, always cover with plastic or water guard.

My personal philosophy is...

Be your own kind of beautiful. Live well. Love much. Laugh often.

"Be your own kind of beautiful. Live well. Love much. Laugh often."

We ask:

What food supplements can help with bone and joint issues?

By Shermaine Lee

Your body may at times be susceptible to the various side effects that come with standard western drugs to help treat your condition. If you are seeking a complementary and holistic approach to managing your health, let Ms Bibi Chia, Principal Dietitian, Raffles Diabetes and Endocrine Centre, share with you several nutritional tips that can help you manage some of the common orthopaedic problems in the comfort of your own home.



What we ask

Bone Health

We heard that calcium can be “extracted” from bones that are used as soup bases. Can we actually gain calcium from drinking the soup?

Maintaining bone health is essential, especially for women past the age of 35. Older women who are postmenopausal are at the highest risk of osteoporosis. Refer to page 24 for the breakdown of calcium intake for different age groups.

It is true that by boiling bones for a long time, calcium will leach into the broth. However, this is only when the pH level of the soup is acidic and not neutral.

To help with the extraction of calcium, try adding some vinegar to the soup before boiling. I have tried adding 2 tablespoons per litre of water, and it does not alter the taste of the soup too much, but rather, enhances the flavour.



**Note: Bone broths and sardines are not suitable for gout patients as they are high in purine.*



What the dietitian says



Joint Tissues

What are some foods we can eat to reduce pain in our joints?

What we ask

Look out for foods that contain omega 3 and glucosamine.

OMEGA 3

Omega 3 is an essential fatty acid that cannot be produced by the body. Therefore, we need to consume omega 3 from foods. Studies suggest that omega 3 might help reduce pain, improve morning stiffness and relieve joint tenderness in people with rheumatoid arthritis. While relief is often modest, it might be enough to reduce the need for anti-inflammatory medications.

Recommended daily intake for adults range from 1.1 to 1.6g of omega 3.

Foods that contain omega 3: Fish, nuts, seeds and oils.



ADEQUATE INTAKES (AIS) OF OMEGA-3S

Age	Male	Female	Pregnancy	Lactation
Birth to 6 months*	0.5 g	0.5 g		
7-12 months*	0.5 g	0.5 g		
1-3 years**	0.7 g	0.7 g		
4-8 years**	0.9 g	0.9 g		
9-13 years**	1.2 g	1.0 g		
14-18 years**	1.6 g	1.1 g	1.4 g	1.3 g
19-50 years**	1.6 g	1.1 g	1.4 g	1.3 g
51+ years**	1.6 g	1.1 g		



What the dietitian says

GLUCOSAMINE

Glucosamine is a natural compound found in cartilage – the tough tissue that cushions joints.

Oral use of glucosamine sulphate (supplements) might provide some pain relief for people with osteoarthritis of the knee, hip or spine.

Early research suggests that oral use of glucosamine hydrochloride might reduce pain related to rheumatoid arthritis.

Dosage: 1,500 mg once daily or in three divided doses to prevent stomach upset. Often combined with chondroitin. May take up to one month to notice its effect.



What the dietitian says



What's New in

Orthopaedic

Surgery

By Magdalene Lee

The impression of orthopaedic surgery being associated with plaster casts, and cumbersome metal implants is fast changing with advances in material technology, imaging resolution, and customised rehabilitation programmes.

Advances in high resolution MRI and CT scans with 3D reconstruction enable surgeons to plan surgery with great clarity, and accuracy while minimising surgical exposure and anaesthesia duration. With 3D printing, patient-specific implants can now be fabricated to treat complex bone deformities and tumour resection.

Previously limited to joints, minimally invasive surgery (MIS) is now extended to wider range of conditions from spine surgery to nerve decompression. MIS provides surgical approach with soft tissue dissection, reducing pain and swelling associated with conventional open surgery. As a result, patients have a better recovery experience, and are able to start going about their regular activities and therapy as early as the first post-surgery day.

These innovations enable surgeons to better plan treatment, empowering patients to return to their lifestyle and sports earlier following bone and joint injuries. The future looks promising and dynamic for orthopaedic conditions!

WHAT'S NEW?

	Minimally Invasive Surgery	Material and Implant Technology	High Resolution Imaging
WHAT EXACTLY	<ul style="list-style-type: none"> • Small incisions • Less pain and swelling • Faster recovery • Targeted treatment 	<ul style="list-style-type: none"> • Implants are stable even in osteoporotic bones • Strong mechanical properties allow early rehabilitation • Absorbable polymers to avoid the need for removal 	<ul style="list-style-type: none"> • 3D MRI and CT scans • Intra-operative imaging for high accuracy • 3D guided operative planning
EXAMPLES	<ul style="list-style-type: none"> • Joint arthroscopy • Spine decompression • Spine discectomy 	<ul style="list-style-type: none"> • Variable angle implants • Patient customised implants • Absorbable screws and wires 	<ul style="list-style-type: none"> • 3D imaging for implants • Smart operating theatre • 3D printed surgical guides

Advances in Orthopaedic Procedures

Our specialists from Raffles Orthopaedic Centre share about advances in orthopaedic procedures under their sub-specialisation.

SHOULDER

The Triple Endobutton Technique is a relatively simple, yet highly effective concept developed as a response to the high failure rates associated with conventional methods of mending Acromioclavicular Joint (ACJ) dislocations.



Dr Lim Yeow Wai,
Specialist in
Orthopaedic Surgery

The technique is non-rigid and allows for normal movement of the joint. It needs only three tiny buttons and two strands of Fibrewire suture. The buttons are made of titanium and are only about 1cm across. During the operation, the suture is looped through the button holes and over the shoulder bone, resulting in a 'snow shoe' hold that allows for fluid movements while stabilising the joint. This method gives even greater strength compared to the natural ligaments.

HAND

Better understanding of small joint biology and healing following injury has enabled patients to return to their activities earlier than before. Gone are the lengthy periods of casting or splinting, replaced by focused and customised protocol to maximise function.



Dr Anthony Foo,
Specialist in
Hand Surgery

Miniaturisation of implant, particularly plates and screws, enable fixation of fractures in locations that are close to delicate tendons and ligaments with minimal risk of irritation and scarring. As a result, therapy can now be started as early as the first post-surgical day compared to the past where fractures need to heal before commencing on therapy.

Small joint arthroscopy with 1.9mm camera provide high resolution examination of wrist and finger joints while similarly miniaturised instruments enable surgeons to plan highly focused and targeted treatment of internal joint injuries such as ligament tears.

SPINE

Lumbar disc protrusion or slipped disc has been one of the most common causes for low back pain and sciatica. The surgical management of lumbar disc prolapse has evolved from exploratory laminectomy to percutaneous endoscopic discectomy.



Dr David Wong,
Specialist in
Orthopaedic Surgery

Microdiscectomy involves the use of microscopes for posterior discectomy with smaller skin incision that leads to less muscle and epidural scarring. Patients will have lesser postoperative pain, early rehabilitation, and early return to work. Due to these advantages, microdiscectomy became the gold standard in disc surgery.

Percutaneous endoscopic discectomy is now the latest minimally invasive technique which involves the use of a rigid working channel endoscope for percutaneous endoscopic lumbar discectomy (PELD) through a 1cm incision. There is less damage to muscular and ligamentous structures allowing for faster rehabilitation, shorter hospital stay, and earlier return to function compared to microdiscectomy and lower incidence of recurrence.

FOOT & ANKLE

Foot and ankle is the newest sub speciality within orthopaedic surgery and has therefore witnessed huge transformations in the standard of care in the last two decades.

Of these, the advent of minimally invasive 'key-hole' techniques is most noteworthy. Common and debilitating conditions such as bunion deformities, big toe spurs, ankle cartilage defects and ankle tendon tears are now being treated through the lens of a 2.7mm camera-scope. The Achilles tendon has also been a huge benefactor of this technique with tendinosis and even Achilles ruptures healing rapidly due to smaller incisions and an accelerated functional rehabilitation program.

The use of orthobiologics has also become instrumental in foot ankle surgery. Strong research outcomes supporting the use of bone marrow aspirate concentrate (stem cells), platelet rich plasma (peripheral blood differentiated stem cells) and synthetic scaffolds that help cartilage and bone defects around the ankle regenerate has enabled earlier return to activity with better functional improvement.



Dr Gowreeson
Thevendran,
Specialist in
Orthopaedic Surgery

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The A-Z of Orthopaedic Diagnostic Tests

Orthopaedic surgeons use a variety of diagnostic tests to help identify the specific nature of a musculoskeletal injury or condition which may affect bones, joints, spine, muscles, cartilage and ligaments.

Dr Pravin Mundada, Specialist in Diagnostic Radiology & Consultant, Raffles Radiology, shares some of the most frequently used diagnostic tests for musculoskeletal injuries and conditions.

By Queenie Ho



Arthrography

Arthrography is used to evaluate the joint by injecting a contrast medium (dye) in the joint followed by imaging. Various imaging modalities are used for arthrography including fluoroscopy, CT and MRI. Arthrography allows detailed evaluation of the interior of the joint.



Electromyography (EMG)

An EMG records and analyses the electrical activity in your muscles. It is used to learn more about the functioning of nerves in the arms and legs.

Radiographs (X-rays)

X-rays (radiographs) are the most common and widely available diagnostic imaging technique. They are considered as one of the first line imaging techniques whenever patient has pain/injury in joints, limbs and spine.

X-rays may also be recommended if your doctor is concerned about several other conditions affecting bones and joints including various forms of arthritis, age related osteoarthritis, infection, metabolic and hematopoietic diseases, and bony lumps and bumps. It should be borne in mind that radiographs deliver ionising radiation to the patient's body and may be contraindicated in certain situations like pregnancy.

Bone Scan

A bone scan is a nuclear medicine test. This procedure involves injecting a very small amount of a radioactive substance, called a tracer, into a vein. It shows possible fracture, infection, metastasis or bone tumour in areas where too much or too little tracer has been absorbed by the body.



Computed Tomography (CT Scan)

A computerised tomography (CT) scan involves computer processing of a series of X-ray images taken from different angles around the joints, bones and spine. It provides more detailed information than plain X-rays do. It also enables reconstruction of images in various planes and forming 3D images of the body that improves diagnostic accuracy and facilitates surgical planning. CT scan is often recommended for the evaluation of road traffic accidents related to musculoskeletal / spine injuries because it provides rapid and detailed information of potentially complex multiple injuries. CT is often employed to perform various types of image guided therapeutic and diagnostic procedures on joints, tendons and muscles. CT scanning delivers ionising radiation to the patient's body, and your doctor may defer its use in certain situations like pregnancy.

Magnetic Resonance Imaging (MRI)

Magnetic resonance imaging (MRI) of the musculoskeletal system involves use of a powerful magnetic field, radio waves and a computer. MRI provides detailed images of the joints, muscles, tendons, cartilage and bones. It is usually the most favored imaging technique for the musculoskeletal system especially for the spine. MRI does not use ionising radiation (X-rays). MRI images allow your doctor to evaluate various parts of the body and determine the presence of certain diseases.

Ultrasound Sonography

Ultrasound sonography (USG) is also a widely available diagnostic imaging technique. Ultrasound sonography does not involve ionising radiation and is considered as a safe imaging modality. It is deemed to be the first line imaging technique for the evaluation of muscles, tendons and ligaments, especially in sports injuries and joint pains. USG allows real-time dynamic evaluation of the integrity and the quality of muscles, tendons and ligaments. With the advent of sophisticated dedicated ultrasound machines and probes, USG can be employed to evaluate small joints of the hands and feet. USG is also considered as the first line imaging technique for the evaluation of soft tissue lumps and bumps. USG is often employed to perform various types of image guided therapeutic and diagnostic procedures on joints, tendons and muscles.



Dual-Energy X-ray Absorptiometry

Dual-energy X-ray absorptiometry (DEXA) is the most widely used test for measuring bone density. It can accurately and precisely monitor changes in bone density in patients with osteoporosis who are undergoing treatments.



NECK AND BACK RELIEF IN THE OFFICE

An average person spends at least eight hours in the office working in front of the computer. But do you know that aches and pains can result from sitting too long in the same position, and often through improper ergonomics too? We share with you some simple stretches that you can do at your office desk to help alleviate the pain.

By Queenie Ho

CAUTION: PLEASE CONSULT A DOCTOR BEFORE YOU DO THESE STRETCHES.



Torso Stretch

1. Keep your feet firmly on the ground, facing forward.
1. Twist your upper body in the direction of the arm that's resting on the back of your chair.
2. Hold pose for 10 to 30 seconds.
3. Repeat on other side.

Tip: Exhale as you lean into the stretch for a greater range of motion.



1

Overhead Reach

1. Extend your arm overhead.
2. Reach to the opposite side.
3. Hold for 10 to 30 seconds.
4. Repeat on the other side.



2

Upper Body and Arm Stretch

1. Clasp hands together above the head, with your palms facing upward.
2. Push your arms up, stretching upward.
3. Hold the pose for 10 to 30 seconds.



4

Shoulder Stretch

1. Clasp hands behind your back.
2. Push your chest outward, and lift your chin.
3. Hold the pose for 10 to 30 seconds.



5

Upper Trap Stretch

1. Gently pull your head towards each shoulder until a light stretch is felt.
2. Hold the pose for 10 to 15 seconds.
3. Repeat on the other side.



7

Tricep Stretches

1. Raise your arm and bend it so that your palm faces the back of your neck.
1. Use your other hand and pull the elbow toward your head.
2. Hold for 10 to 30 seconds.
3. Repeat on the other side.



8

Shoulders Shrug

1. Gently lift your shoulders.
2. Drop them slowly.
3. Repeat 10 times.



6

Hamstring Stretch

1. Remaining seated, extend one leg outward.
2. Reach towards your toes.
3. Hold for 10 to 30 seconds.
4. Repeat on the other side.

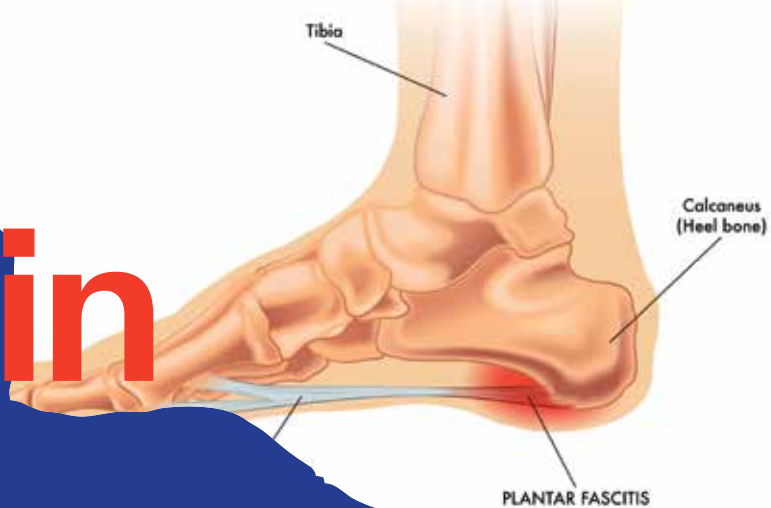
Note: Do this one leg at a time, as doing this exercise with both legs out can cause back issues.



The goal is to move around throughout the day to avoid pains and aches. It is also important to be comfortable at your desk. Here are some handy reminders from Ms Nur Faradyna, Senior Physiotherapist, Raffles Rehabilitation Centre.

- Keep your chair close to your desk.
- Adjust the height and make sure your feet are fully on the floor.
- The top of your computer screen should level with your eyes, and about an arms-length away from you.
- Every half hour or so, stand up, stretch and move for 20 to 30 seconds.
- Keep neck and shoulders in a relaxed and neutral position.
- Use a headset instead of squeezing a phone handset between your neck and shoulder, especially if you have to be on the phone for long periods at a time.
- Avoid eye strain by blinking regularly, or taking eye breaks by looking away from the screen for a while; every half an hour or so.

Heel Pain Fixes



People suffering from plantar fasciitis commonly complain of a stabbing pain on the heel, which is usually more intense, when they make their first few steps after a night's rest, and from prolonged sitting or standing. It is not something that happens overnight, but rather it is an accumulative effect of an imbalance stride that constantly puts pressure on the plantar fascia during walking, running and jumping. This stubborn injury can last from several months to even longer. Mr Lim Hun Teck, Chief Physiotherapist at Raffles Rehabilitation Centre, shares ways to relieve this dreadful pain to eliminate this condition over time.

By Joanna Lee

The plantar fascia is a thick band of tissue that runs across the bottom of your foot and connects your heel bone to your toes.

Possible causes include

Weak foot muscles

Overweight

Standing for long periods of time

Wearing inadequate or worn out shoes

Gait and balance problem

Flat-footed or high arch

Engaging in activities (eg. long-distance running, ballistic jumping activities, ballet dancing, aerobic dance)

Foot anatomical problems

Strengthening and stretching exercises that target the fascia and tissue indirectly linked to the plantar fascia such as calf muscles, can aid the recovery of this condition. Before engaging in any rehabilitation programme, it is advisable to consult a doctor or podiatrist to assess your condition.

Calf Stretch (Knee Straight)

Muscle tightness in the calves can worsen the pain caused by plantar fasciitis. Loosening the tightness felt on the calves can relieve the pain.

- Lean your hands against a wall
- Place the affected leg behind and straighten the knee, while placing the other leg in front with knees bent
- Keep both feet flat on the ground
- You should feel the stretch in the calf and heel
- Hold for 30 seconds
- Repeat three times



Calf Stretch (Knee Bent)

- In a staggered stance, stand about two to three feet in front of a wall
- Ensure the toes of your back foot are even with the heel of your front foot
- Place your hands on the wall
- Bend the knee of your back leg to the point of feeling a slight stretch above the ankle of your back leg. Hold, relax, and return to starting position to repeat with your other leg



Seated Toes Stretch

- Sit on a chair and cross the injured heel over the other leg
- Pull the toes towards the shin with your hands to create tension in the arch of the foot and feel for tension in the plantar fascia
- Alternatively, use a towel to grasp and stretch the foot if it is difficult to hold
- Hold for 30 seconds
- Repeat three times

Note: Pull the heel inwards.



Standing Toes Stretch

- Keep about an arm's length distance between your body and a wall
- Rest the toes of your affected foot against the wall
- As you lean forward, slowly glide your foot downwards until you feel a stretch on the base of your foot
- Hold for 30 seconds
- Repeat three times

Wall Sit Calf Raises

This exercise aims to strengthen your calf muscles to bring more muscular strength and stability to your ankles and feet.

- Lean your back against the wall
- Bend your knees and drop down until your legs form a 90-degree angle
- Hold this position and lift up your heels then lower your heels back down
- Repeat this for 20 times
- Do three sets



In any exercise programme, the key to seeing results is consistency and persistence. One should try for at least one month to notice any significant result before switching to other forms of treatment.



Mr Lim Hun Teck
Chief Physiotherapist
Raffles Rehabilitation Centre

Ask the Experts

Q: Is picking a mattress just a matter of preference or should the mattress conform to the buyer's body profile and sleeping posture?

A: Sleep comfort is sacrificed if a mattress does not match one's individual preferences. A mattress that provides both comfort and back support helps to reduce low back pain, and allows the structures in the spine to really rest and rejuvenate during the night. What position one usually sleeps in makes a difference in the type of support one needs from the bed.



Dr David Wong

Specialist in Orthopaedic Surgery
Consultant, Raffles Orthopaedic Centre

Q: What are some common accidents and falls that can be treated at home without a visit to the doctor?

A: Joint strains and sprains can be managed by first stopping any strenuous activity, icing the affected joint, compressing with bandaging, and keeping the joint elevated. Where possible, avoid strenuous use of the affected joint to prevent further injury. Over-the-counter analgesia can be used to relieve symptoms. If there is a suspicion of a dislocated joint such as the shoulder, it should be immobilised using an arm sling, and proceed to the nearest emergency department.



Dr Goh E Shaun

Specialist in Emergency Medicine
Consultant, Raffles 24 Hour Emergency

Q: What are the benefits of weight-bearing exercise and is it suitable for everyone?

A: Weight-bearing exercise is important to increase bone density and joint strength. It can also help minimise your risk of fractures and developing osteoporosis. However, it is not suitable for everyone as some patients need to refrain from putting excessive pressure on their injured tissues to allow for time to heal.



Mr Lim Hun Teck

Chief Physiotherapist
Raffles Rehabilitation Centre

Q: How often should anti-inflammatory medications be taken to help manage joint pain and inflammation?

A: Anti-inflammatory medications should be taken only for the shortest possible duration, as prolonged use can lead to stomach ulcers and bleeding, kidney failure, heart attack and stroke. Acute episodes of joint pain and inflammation can be treated with rest and cold compress. Other non-invasive conservative management for joint pain include physiotherapy and acupuncture.



Dr Ho Kok Yuen

Specialist in Anaesthesiology
Consultant, Raffles Pain Management Centre

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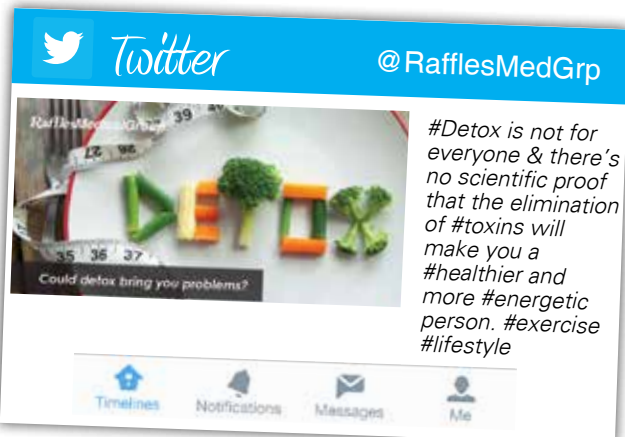
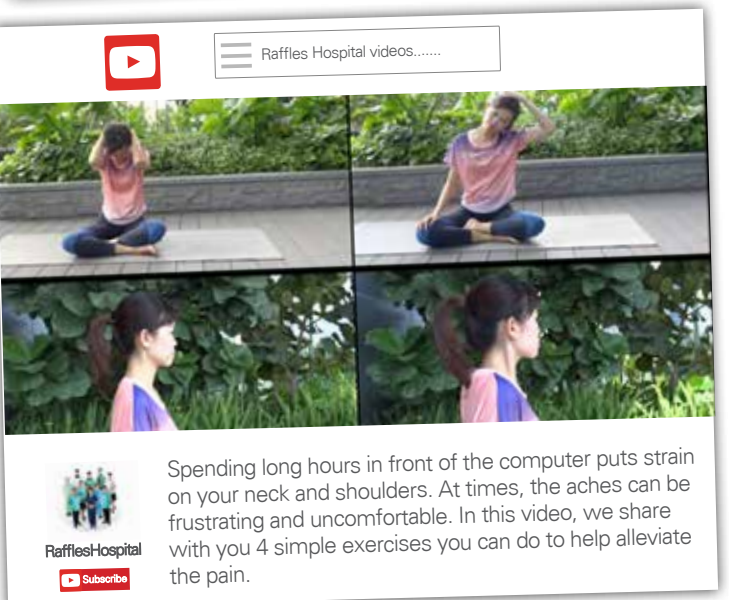


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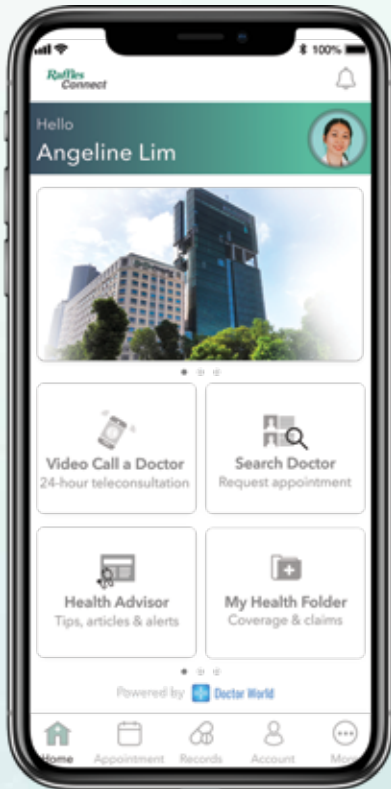
We are pleased to have Singapore's Deputy Prime Minister Tharmar Shanmugaratnam officiate the grand opening of Raffles Specialist Centre this morning!

At the opening, Dr Loo Choon Yong, our Group's executive chairman mentioned that the opening has added a 70 per cent increase in our floor area and would enable us to grow our practice and facilities over the next 10 years.



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