

# Care for *Life*



HOSPITAL SERVICES | HEALTH INFORMATION

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VOL6 | ISSUE3



**BREATHE IN**  
Facts about  
bronchopulmonary  
dysplasia

**GASTROESOPHAGEAL  
REFLUX DISEASE**  
KPJ Specialists  
Discuss Prevention  
and Treatment



**Punctured Abdominals**  
Inguinal Hernia and  
its Causes

## **CARDIOMYOPATHY DECODED**

Understanding the causes and  
solutions to the heart muscle disease





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## Care for Life

Since 1981, KPJ has established itself as one of the region's leading private healthcare service providers.

KPJ's network has more than 30 specialist hospitals altogether, at home and abroad.

The KPJ Healthcare University College (KPJUC) provides an extensive range of healthcare-centred programmes.



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# MESSAGE FROM THE PRESIDENT & MANAGING DIRECTOR

Being the leading private healthcare provider in the country means that we have to be abreast of global trends and constantly update our services to meet the needs of patients. This also means introducing and innovating modern healthcare services where there are none and equipping them with skilled and leading medical professionals.

An example of this is the recently launched Pahang Specialist Hospital in Tanjung Lumpur—the largest private hospital in Kuantan and the only one in the East Coast that offers comprehensive heart screening services. In the Meru Valley, Perak, KPJ Ipoh Specialist Hospital collaborated with Meru Valley Resort to develop the residential rehabilitation and physiotherapy centre.

We also recently introduced a 282-bed KPJ Sabah Specialist Hospital that offers ground-breaking services such as gynae-oncology, vitreo-retinal surgery and non-invasive treatment for Gastroesophageal Reflux Disease. Meanwhile we're also looking into developing the KPJ Batu Pahat Specialist Hospital, proposed seven-storey 90-bed hospital in Johor.

Moving forward, KPJ plans to continue this trend of increasing the people's accessibility to modern

healthcare with the planned establishment of eight more hospitals around the country. This also includes introducing new technologies, treatment and services to cater to rapidly changing market needs.

Developing new infrastructure and upgrading our equipment with the latest diagnostic technology helps our consultants provide better services—treating diseases faster and more effectively. With this, our patients can remain assured that the treatment they receive at KPJ hospitals will remain world-class.

Ultimately, all our efforts to enhance our services and delivery is because of our commitment to care. That is the central theme of everything we do at KPJ—our desire to satisfy our customers, which galvanise us to enhance our processes, transforming and building our capacity to achieve progressive growth.

**Dato' Amiruddin Abdul Satar**  
*President & Managing Director,*  
*KPJ Healthcare Berhad*

“The systems we have put in place as well as our dedicated team of healthcare professionals go a long way to indicate KPJ's commitment to *Care for Life*.”



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## A WORLD RENOWNED PROVIDER

**By Tan Sri Siti Sadiyah Sheikh Bakir, Director of KPJ Healthcare Berhad (KPJ),  
and Chairman and Pro-Chancellor of KPJ Healthcare University College (KPJUC)**

It is always a pleasure for me to update about the accomplishments of KPJ Healthcare University College (KPJUC), which is KPJ Healthcare's education arm. As a higher education institution specially focussed on training and nurturing healthcare professionals, KPJUC – formerly known as Puteri Nursing College (PNC) – has been fundamental in creating more than 8,000 nurses and allied health professionals since its inception in 1991.

During their time at the varsity, KPJUC's students had the advantage of witnessing cutting-edge technology performed in the Group's 26 modern, state of the art hospitals located nationwide.

Upon completion of their programmes, graduates will receive degrees and awards at the most highly awaited event on our annual calendar, namely the KPJUC Convocation Ceremony.

This December 2016, KPJUC will hold its 20th Convocation Ceremony, at Dewan Merdeka, Putra World Trade Centre (PWTC), Kuala Lumpur. There will be more than 770 graduates this year, celebrating their success alongside their families and friends. As providers, KPJUC management and academic teams share the heartfelt joy, knowing that we too had shared in moulding and nurturing these healthcare professionals for the nation.

What is especially significant about this year's Convocation is the fact that, among the sea of excited graduates will be two brand new KPJUC-trained specialists. They are the first medical doctors to complete KPJUC's Master of Otorhinolaryngology (Head & Neck Surgery), in collaboration with Universiti Kebangsaan Malaysia (UKM).

The programme commenced in 2012, and was KPJUC's first Masters programme for doctors, following approval from the Ministry of Higher Education (MOHE) a year earlier for KPJUC to be Malaysia's 1st private education institution to offer Masters in Medicine programmes to train medical specialists. More KPJUC Masters programmes have been approved since then.

We are now actively exploring international presence, while creating more programmes for healthcare professionals in diverse medical disciplines. I have no doubt that KPJUC will become a global healthcare education provider soon.

In retrospect, KPJUC has truly come a long way, from its first days in the 1990s when we faced many challenges to pursue our vision for a KPJ-owned nursing college. Today, words are no longer needed to prove that KPJUC is able to stand tall as a proud provider of healthcare education & training.

Together, we can make KPJUC the world's preferred provider. ●



At KPJ, we customise treatment and services according to the culture and beliefs of patients to meet the needs of a wider range of people



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**BLOOD: THE ELIXIR OF LIFE**

Put your knowledge about blood to the test with our quiz.

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**FUNNY BONES**

Jokes, trivia and puzzles that will make your day brighter and lighter.

# IS VASECTOMY LINKED TO PROSTATE CANCER?

A new study has shown that, undergoing vasectomy is unlikely to increase risk of any type of prostate cancer.

Vasectomies are a long-term approach to birth control, which involves cutting and sealing the tubes that the sperm travels through when leaving the testicles, so that sperm cannot be released during intercourse. Men undergoing vasectomies have concerns on pain, their sex life when they age and also the fear of the big C - prostate cancer. It should come as a relief then, as a new study done by Dr. Eric Jacobs and his colleagues of Epidemiology Research Program from the American Cancer Society indicates that there is no association between having a vasectomy and developing prostate cancer.

The link between having the snip and developing prostate cancer has been long debated since around 1993. "Though a 2014 study found

a tiny increase of risk, other studies have concluded that there were no associations between vasectomy and prostate cancer," said Dr. Jacobs.

He also mentioned that men who are concerned about developing the fatal illness should focus more on maintaining a healthy weight and quit smoking. He further added that these two are well-known risk factors for developing more aggressive, fatal forms of prostate cancer. ●





Kidney stones happen when the waste products in the blood form crystals that collect inside the kidneys. In the long run, the crystals may build up forming a hard stone-like lump.

# A ROLLER COASTER RIDE TO TREAT KIDNEY STONES

Two researchers who took science to the amusement park say they have found that a thrilling roller coaster ride just might help people shake out those pesky kidney stones.

Dr. David Wartinger and his colleague, Dr. Marc Mitchell of Michigan State University said they heard patient after patient telling them about how they had passed kidney stones after riding one particular ride: the Big Thunder Mountain Railroad roller coaster at Walt Disney World in Orlando. They had also seen some media reports about people who passed kidney stones while bungee jumping and riding roller coasters.

Hence, they decided to put this to the test. To simulate the human body as best they could, both of the researchers, made an artificial human kidney model out of clear silicone gel and loaded it up with real human kidney stones. They rode the roller coaster holding their kidney contraption between them in a backpack positioned at kidney height. They then took 20 rides and noted what happened to each kidney stone.

They discovered that, riding in the back of the roller coaster train seemed to really knock the kidney stones out, they reported in the *Journal of the American Osteopathic Association*. The front seating on the roller coaster resulted in lesser passage rate of kidney stones compared to the rear seating on the roller coaster.

They are still unsure of what is going on. For instance, ear, nose and throat specialists know they can sometimes cure vertigo with

what's called the Epley manoeuvre (to reposition little pieces of calcium called otoliths that can break loose in the ear). The manoeuvre is a precise series of movements meant to guide the floating pieces of grit back to where they belong inside the ear. Unlike the precision with that technique, what happens on the roller coaster is far from precise, and what Wartinger describes as "jostling your cookies".

Dr. Dave Wartinger also said, "Small is the key. Any stone bigger than 4 mm or 5 mm could get stuck. That's when you feel like you are giving birth to a porcupine". He insisted that anyone who wants to try this needs to see a doctor first. To date, the pair have now run their test 200 more times and found that results were consistent. To increase the accuracy of the results, the doctors now want to try other amusement park rides. ●



The initial symptoms of *alopecia areata* are small bald patches. The underlying skin is usually unscarred and looks rather normal. These patches can take many shapes, but the most common ones are usually round or oval.

## HOPE FOR HAIR

While there is currently no definite treatment capable of restoring hair, the research by Columbia University Medical Centre (CUMC) has shed light on this area by discovering certain drugs which could potentially stimulate hair growth.

**A**lopecia Areata also known as spot baldness is the second most common form of hair loss that occurs at any age and affects both men and women equally. It is an autoimmune disease in which hair is lost from some or all areas of the body, usually the scalp due to the body's failure to recognize its own body cells and subsequent destruction of its own tissue. Patients who are suffering from this condition can now give a sigh of relief as studies from Columbia University Medical Center (CUMC) have identified a promising therapy for the disease that stimulates hair regrowth by 92 percent.

That being said, there is no treatment capable of completely restoring hair. Dr. Julian Mackay-Wiggan, Associate Professor of Dermatology and Director of the Clinical Research Unit

in the Department of Dermatology at CUMC, and a dermatologist at New York-Presbyterian/Columbia said, "Although our study was small, it provides crucial evidence that JAK inhibitors (which stimulates hair growth) may constitute the first effective treatment for people with *alopecia areata*".

The study used the same drugs that are used in treating bone marrow malignancies and arthritis (ruxolitinib and tofacitinib respectively). Results showed that nine of twelve patients achieved at least 50 percent of hair regrowth. By the end of the treatment period, 77 percent of participants who responded to ruxolitinib therapy achieved more than 95 percent hair regrowth. On the contrary, during the follow up period, one third of the people who had responded to the treatment proceeded to experience significant hair loss, although not to the degree of before treatment. ●

# BUSTING BLOOD CLOTS

Houston Methodist researchers, Paolo Decuzzi, Ph.D and colleagues now say that they can destroy blood clots much faster than a commonly used clot-busting technique, by loading magnetic nanoparticles with drugs and dressing them in biochemical camouflage.

These findings are based on experiments in human blood and animals (mouse) clotting models. If the drug delivery system performs similarly well in planned human clinical trials, this could mean a major leap forward in the prevention of strokes, heart attacks, pulmonary embolisms, and other dire circumstances where clots are quickly busted which can cause severe tissue damage and death.

Paolo Decuzzi, Ph.D, the studies co-principal investigator mentioned that they have designed the nano particles so that they trap themselves at the site of the clot, and this will quickly deliver a burst of commonly used clot-busting drug tPA where it is needed.

Alan Lumsden, M.D of the Houston Methodist BeBaKey Heart & Vascular Center, also said that treating clots is a serious problem for all hospitals, and although the tPA drug and other similar drugs can be effective in rescuing patients, it also has its down side as there would be an increased risk of haemorrhage, and this could be fatal. “Fortunately, the nanoparticles that is being developed by Decuzzi could solve the problem” he said.

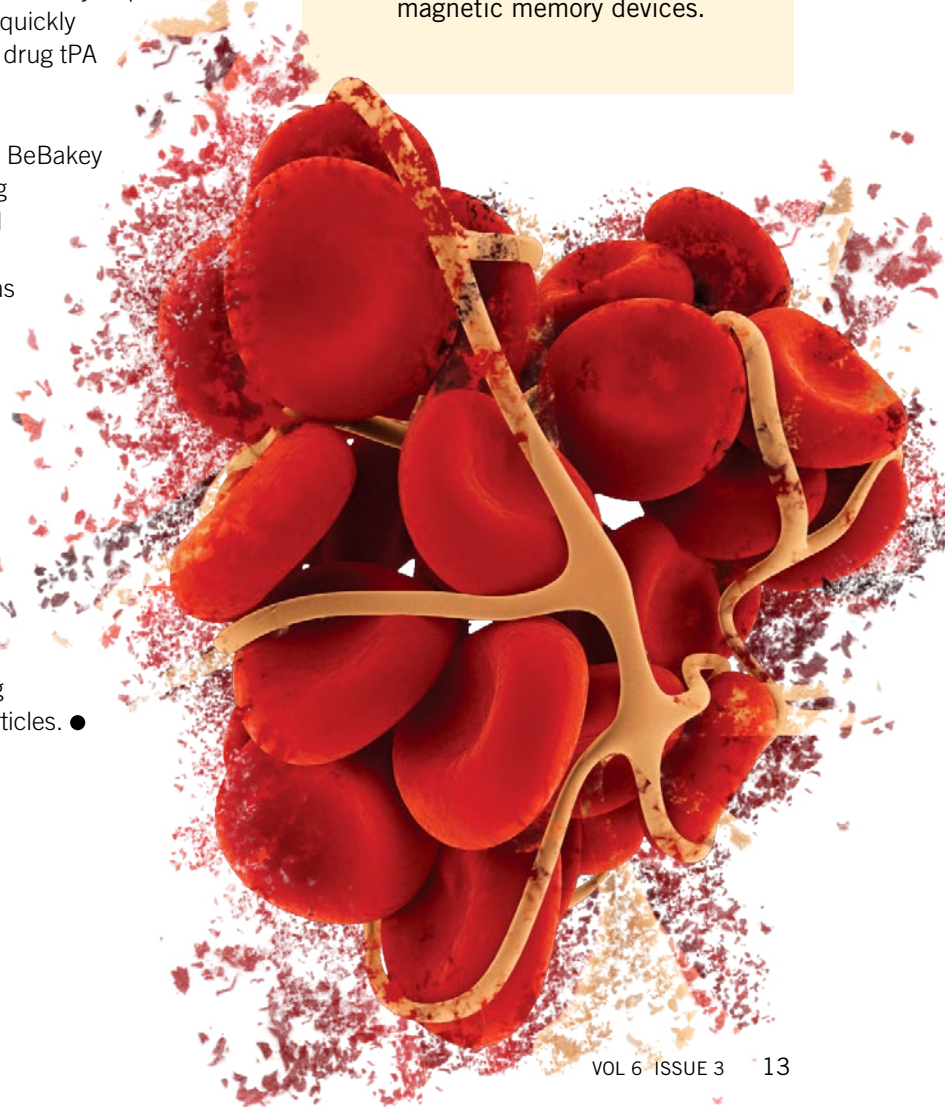
According to Decuzzi, the future steps would be testing the nanoparticles’ safety and effectiveness in other animal models, with the ultimate goal of human clinical trials. He further mentions that his group will continue to examine the feasibility of using magnetic fields to guide and heat the nanoparticles. ●

Blood clots are healthy and could save a life at times when they stop wounds from bleeding. But, they can also form when they are not needed, and cause serious medical problems like heart attack and stroke.



## NANO POWER

Studies have been done with magnetic nanoparticles for applications including biomedical imaging, medical diagnostics and magnetic memory devices.



# THE LAUNCH OF KPJ PAHANG SPECIALIST HOSPITAL

In tandem with its official opening, the hospital makes its first milestone as the first private care provider in the state with its own Catheterization laboratory.



Menteri Besar Pahang YAB Dato Sri DiRaja Haji Adnan Yaakob (left), Tengku Mahkota of Pahang Tengku Abdullah Sultan Ahmad Shah (centre), President and Chief Executive of the Johor Corporation YB Dato Kamaruzzaman Abu Kassim (right) and other fellow dignitaries at the launch of the 26th specialist hospital under the KPJ Healthcare Berhad (KPJ).

**K**PJ Pahang Specialist Hospital, the latest private specialist hospital in Kuantan was officially opened by Tengku Mahkota of Pahang Tengku Abdullah Sultan Ahmad Shah on the 6th of October 2016 in Tanjung Lumpur, Kuantan. Menteri Besar Pahang YAB Dato Sri DiRaja Haji Adnan Yaakob, KPJ Healthcare Chairman YB Dato Kamaruzzaman Abu Kassim, KPJ President & Managing Director YH Dato Amiruddin Abdul Satar and members of PASDEC were also present at the event.

Dato' Kamaruzzaman Abu Kassim said the investors embarked on a journey to come up with this project of building a 200-bedded hospital, and a share based on 70 to 30 shared equity between Kumpulan Perubatan (Johor) Sdn Bhd (a subsidiary of KPJ Healthcare Berhad (KPJ)), and PASDEC Corporation Sdn. Bhd (a subsidiary of PASDEC Holdings) in 2012, which invested more than RM110 million.

The hospital which opened this year is supported by 26 specialist medical consultants, more than 360 staff which will provide an array

of specialised services including orthopaedics, traumatology, general surgery, neurosurgery, ENT, radiology, ophthalmology, obstetrics and gynaecology, as well as paediatrics.

Apart from the services mentioned above, a key feature of this hospital is, it is the only private service provider in the state to have its own Catheterization laboratory (Cath Lab) which gives patients access to a wide range of techniques available to diagnose and treat cardiovascular diseases. The hospital is also well equipped with the state of the art medical facilities such as a 1.5-Tesla Magnetic Resonance Imaging (MRI) scanner as well as a 64-slice Computer Tomography (CT) scanner along with many other latest medical equipment.

Dato' Amiruddin pointed out that this hospital will be setting a new benchmark in terms of quality patient services. He also added that building a new hospital will give an added advantage of implementing enhanced systems centred on technology and innovation, to ensure outstanding patient experience. The existing hospital has a good quality framework in place, as when the operations were based in its former premises in Jalan Alor Akar, they have already achieved Accreditation status in the year 2015.

Being the 26th specialist hospital under the KPJ Healthcare Berhad (KPJ) that has a view of the sea on one side and of the town of Kuantan on the other, it could draw in both local and international patients making it the perfect place to implement health tourism in the years to come. ●



# Sabah's Pioneer of Private Healthcare: KPJ SABAH

Hospital marks another milestone as preferred provider of care in Kota Kinabalu

On the 23rd of August 2016, KPJ Sabah Specialist Hospital was officially launched, marking it as a pioneer in the private healthcare industry in Sabah. This event was officiated by Tuan Yang Terutama Yang Di-Pertua Negeri Sabah Tun Datuk Seri Panglima (Dr.) Haji Juhar bin Datuk Haji Mahiruddin. He was joined by Deputy Chief Minister and Minister of Agriculture and Food Industry, YB Datuk Seri Panglima Haji Yahya Hussin; KPJ President & Managing Director, YBhg Dato' Amiruddin Abdul Satar and Tuan Haji Aminudin Dawam, Senior Vice President of Johor Corporation (JCorp) and Executive Director of KPJ Healthcare Berhad. Other guests included Ministers and dignitaries of state.

The hospital is listed as the 22nd specialist hospital among the KPJ group of hospitals and consists of 282 beds and 450 car parking bays, and offers an impressive wide range of comprehensive outpatient and inpatient specialist healthcare services, from prevention treatments to aesthetics procedures. The newly launched hospital is also well equipped with state-of-the-art healthcare facilities, such as the 160 multi-sliced CT-Scanner, a 1.5 Tesla MRI Scanner, Hologic Selenia Digital Mammogram, DEXA Bone Densitometer, Cardiac Catheterization Laboratory, Cardio-Thoracic Operation Theatre and Linear Accelerator (LINAC) for Oncology Services.

Additionally, living up to its name of being the pioneer healthcare industry in Sabah, they now have ground breaking services such as vitreo-retinal surgery, gynae-oncology services, non-invasive treatment for Gastroesophageal Reflux Disease (GERD) to name a few, with its dedicated team of 59 medical consultants and more than 350 healthcare employees.

At the launch, Dato' Amiruddin mentioned that the hospital has come a long way and with KPJ supporting



**Above:** Tuan Yang Terutama Yang Di-Pertua Negeri Sabah Tun Datuk Seri Panglima (Dr.) Haji Juhar bin Datuk Haji Mahiruddin giving the opening speech with other esteemed guests present.

its growth, and they would further invest in technology and expertise because they see the potential of Sabah's healthcare industry, which is in line with the State Government to promote The Land Below the Wind as a hub for healthcare excellence. Also, the hospital has been making efforts to enter the health tourism industry by drawing patients from the neighbouring countries which is made up of Brunei, Indonesia, Malaysia and Philippines, which is also known as the East ASEAN Growth Area (BIMP-EAGA). "We will continue to capitalise on this growing opportunity – where there is strong demand from abroad", Dato' Amiruddin emphasized. ●



Picture above shows Puan Rafeah Ariffin (3rd from left), Senior General Manager of International Marketing and Strategic Communications, Dato' Amiruddin Abdul Satar (center), President & Managing Director, KPJ Healthcare Berhad and YB Dato' Seri Dr Hilmi Haji Yahaya (3rd from right), the Deputy Minister of Health Malaysia with fellow dignitaries of KPJ Healthcare Berhad at the event.

# KPJ TAWAKKAL HOSTS The Region's First Breastfeeding Conference

Breastfeeding should always be made a priority, as breast milk is undoubtedly the best for babies, because it benefits both the baby and the mother. Breastfeeding benefits babies by providing them almost all the essential nutrients that is crucial for their development, and as for mothers, breastfeeding lowers the risk of breast and ovarian cancer. Hence, the nation's leading healthcare service providers, like the KPJ Healthcare Group are on the move to make this a reality.

The First Regional Breastfeeding Conference was held in Kuala Lumpur on the 28th of July 2016, at KPJ Tawakkal Specialist Hospital (KPJ Tawakkal). This was in conjunction with the World Breastfeeding Week 2016 with the theme "Breastfeeding: A key to Sustainable Development". This 2-day conference which was held from the 28-29th of July aimed to train and upgrade the skills of health professionals working in the fields of breastfeeding and lactation support.

The conference was initiated by the Malaysian Breastfeeding Association BIB Malaysia and the BFHI Training and Resource Centre and was officiated by YB Dato' Seri Dr Hilmi Haji Yahaya, the Deputy Minister of Health Malaysia. Also present at the event was YBhg Dato' Amiruddin Abdul Satar, President and Managing Director of KPJ Healthcare Berhad (KPJ).

YB Dato' Seri Hilmi mentioned that, there are 127 (100%) government hospitals in the country that are baby-friendly, but the response towards the Baby Friendly Hospital Initiative (BFHI) advocacy of private hospitals still needs to be improved. "I must congratulate KPJ for taking a serious initiative in getting their chain of

hospitals throughout the country to be baby-friendly. Congratulations! I do sincerely hope many other private hospitals providing maternity services in the country, and currently not baby-friendly, will follow suit" said YB Dato' Seri Hilmi.

Puan Rafeah Ariffin, Senior General Manager of International Marketing and Strategic Communications, mentioned that, thus far, 12 KPJ Specialist hospitals have already been certified under the Baby-Friendly Hospitals Initiative (BFHI), including KPJ Tawakkal, and efforts are being made to achieve full BFHI status.

Besides this initiative, the breastfeeding hospital had previously sponsored a public-awareness reality TV show on prenatal and postnatal care, featuring two local personalities with an aim to reach out to more members of the public. ●



An attendee getting her vitals checked from one of the booths that offered free health screening at KPJ Tawakkal's Health Talk on Osteoporosis recently. The free screening included a blood pressure and glucose test.

## WOMEN AND OSTEOPOROSIS

On the 10th of August 2016, KPJ Tawakkal Specialist Hospital in Kuala Lumpur organised a talk on osteoporosis to educate and raise awareness about the prevalence of the condition among women over 45 years of age. The talk was given by Dr Abdul Muiz Ab Razak, KPJ Tawakkal's Consultant and Orthopaedic Surgeon, to a roomful of attendees from the Indonesian Muslim Ladies Community, an association of expatriate Indonesian women living in Malaysia.

The engaging discussion shed light and gave key insights about the medical condition that's more common among women, said Dr Abdul Muiz, who explained that the word 'osteoporosis' comes from the meaning of two words: 'osteo' which means bone, and 'porosis' which means brittle.

According to Dr Abdul Muiz, the life cycle of a woman's bones begins from birth and peaks when she reaches the age of 25, meaning her bone mass is at its optimum stage. Between the ages of



**>>>> “TO PREVENT OSTEOPOROSIS, women should reduce their alcohol intake, do more weight-bearing exercises, increase their calcium intake, stop smoking, take medication and check risk factors.”**

– Dr Abdul Muiz Ab Razak

25 and 45, bone mass plateaus in women, meaning it doesn't get any better nor any worse. From age 45 onwards, a woman begins to lose the mass in her bones. This can be observed by a loss in height and appearing noticeably shorter. From age 70 onwards, a woman's bone reserves get depleted, resulting in bones that are more prone to breaking.

### Risk Factors

Dr Abdul Muiz listed out several risk factors that may lead to osteoporosis. Some of the factors are non-modifiable, which means they cannot be changed or avoided, while some factors are modifiable, or can be adapted.

Among the non-modifiable factors include advancing age, gender (females are more prone to osteoporosis as a woman's bones stop growing at age 16), premature menopause (for those aged below 45), Asian or Caucasian (Asians are more at risk compared to Caucasians), thin and small body frame (slim people are more at risk of getting osteoporosis compared to those with bigger builds), family history and history of fractures in adults.

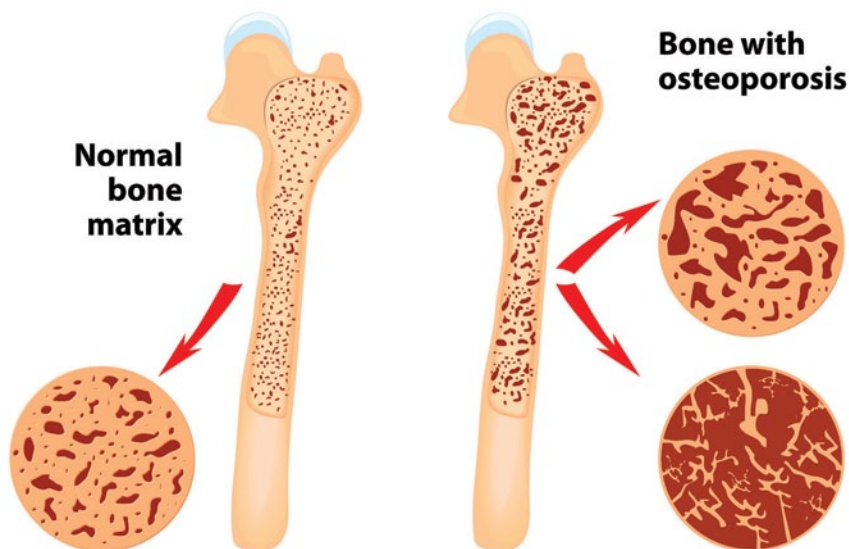
Modifiable factors include low calcium intake, lack of exercise, smoking, excessive alcohol and caffeine intake, and estrogen deficiency. Dr Abdul Muiz says the best and most easily obtainable source of calcium is the sun, citing that sunlight is needed to stimulate vitamin D production which helps the absorption of calcium by the intestines. He also corrected the misconception that drinking a lot of milk would prevent osteoporosis, saying that the human body only requires one gram of calcium daily. "So while a person may drink a full glass of milk, the body will only take 1gm of calcium from that, the rest is considered 'waste' by the body," said Dr Abdul Muiz.

### Detection

There are two ways to detect osteoporosis in the body, says Dr Abdul Muiz. One is by blood screening where a full blood count is taken to



Attendees in rapt attention listening to Dr Abdul Muiz's engaging lecture about osteoporosis.



On average, women after the age of 45 are more prone to enduring brittle bones due to the change in their bone matrix that occurs due to osteoporosis.

determine renal function, serum calcium, phosphate, albumin, alkaline phosphatase and related medical diseases. The other is by taking a bone density test, which measures the density and strength of bones.

Meanwhile, Dr Abdul Muiz reveals that there are two types of osteoporosis: primary and secondary. There are three causes that lead to primary osteoporosis and they are: post-menopause, advancing age and idiopathic or rare. For secondary osteoporosis, the cause may be attributed to diseases that interfere with the attainment of peak bone mass and may cause bone loss, medications like steroids, or poor nutrition or low calcium intake. For both primary and secondary osteoporosis, symptoms may include back pain and loss of height.

**Prevention**

In terms of prevention, women should reduce their alcohol intake, do more weight-bearing exercises like walking or jogging, increase their calcium intake, stop smoking, take medication and check risk factors.

Dr Abdul Muiz later opened the floor to questions from the audience. He answered queries on osteoporosis brought about by changing hormones in women and



KPJ Tawakkal's Physiotherapy team overseeing a fitness test. The exercises are done to test for grip strength and flexibility.

clarified that for treatment, women should take pills to regulate their hormones, not take calcium pills as it does not address the root cause of the problem, which is hormone imbalance. He also said that women over the age of 45 should get their bones checked yearly for signs of osteoporosis and that early detection is advisable so that preventable measures can be adopted.

KPJ Healthcare conducts blood and bone density tests to check for osteoporosis, both of which are available at KPJ hospitals nationwide. In the Klang Valley and Kuala Lumpur area, the bone density test can be found at KPJ Ampang Puteri Specialist Hospital and KPJ Damansara Specialist Hospital. ●

# BREAST CARE

On the 3rd of October 2016, the endocrine department of KPJ Damansara Specialist Hospital held an event themed “A Majestic Pink Afternoon Tea Affair with Pride” in conjunction with the Breast Cancer Month to educate and spread awareness on one of the most fatal diseases that affect women – breast cancer.



Dr Naqiyah Ibrahim raised awareness about breast cancer among the crowd by using her speech to discuss the issues that surrounded it: the tissues that tumours were likely to grow in, the more dangerous forms of tumours, the risk factors altering the likelihood of getting breast cancer as well as the multitudes of prevention methods any woman could employ.

Consultant General Breast and Endocrine Surgeon Dr. Naqiyah Ibrahim gave a health talk on the various types of breast cancer that can affect women of all ages, the risk factors that could stimulate these ailments, the simple techniques on breast self-examination, and finally the management of breast cancer such as the surgeries and alternative treatments for breast cancer.

Dr. Naqiyah Ibrahim started off by briefly explaining the anatomy of the mammary

gland and that the breast has two main types of tissues which are the glandular tissue and the supporting stromal tissue. Right after that she defined the tumour as any uncontrolled growth of new tissues that occur anywhere in the body often leading to the formation of a lump.

She elaborated further on the types of benign and malignant breast conditions. The former is very common among women and is usually not life threatening but will cause bothersome symptoms such as having lumps, pain and nipple discharge (other than milk) and though some benign breast conditions do not show any symptoms, it can be detected during a mammogram screening. Some of the benign conditions that Dr. Naqiyah pointed out are *fibroadenoma*



“1 in 9 women develop this disease in their lifetime and in Malaysia 1 in every 4 women are at risk of breast cancer; 80% of breast lumps are not cancerous.”

– **Dr. Naqiyah Ibrahim,**  
Consultant General Breast  
and Endocrine Surgeon

which affects women in their twenties, *epithelial hyperplasia* which affects women of ages from twenty to forty, fat necrosis could affect any woman of any age and ductal papilloma which affects women from ages forty to sixty. Although the benign breast conditions are sometimes painful, Dr. Naqiyah mentioned that 70% of all malignant cases are painless but with obvious symptoms such as skin dimpling of the breast, change in skin colour and texture, changes in how the nipple looks and clear or bloody fluid leaking out of the nipple.

She also shared the risk factors that cannot be changed and risk factors that can be changed for example, lifestyle and diet. Biological factors like gender, age, genetics, race, personal and family history are some of the risks that cannot be altered. She further continued that some lifestyles women undergo that could further increase their chances of developing breast cancer, some of which are having their first child after the age of thirty, taking oral contraceptive pills, consuming alcohol and obesity.

For ways of prevention, Dr. Naqiyah spoke about one of the most vital ways that all women can do without having to pay a single cent-breast self-examination (BSE). She emphasized that BSE is an important way to detect any symptoms and signs of

breast cancer. BSE should be made a habit for every woman. They should do this every month several days after their period, because if they do this, they will learn more about their own breasts and it will make detection even easier. Dr. Naqiyah then discussed the techniques on how to do the BSE and touched slightly on how mammograms play a central role in early detection of breast cancer.

Before talking about the management of breast cancer, she introduced some figures to the audience by pointing out that 1 in 9 women develop this disease in their lifetime and in Malaysia 1 in every 4 women are at risk of breast cancer depending on their race, and 80% of breast lumps are not cancerous.

In the case when someone has been diagnosed with breast cancer, Dr. Naqiyah said the medical team will take into account the best treatment for the patient including the type of breast cancer, the stage and grade of the breast cancer, whether the cancer cells are sensitive to hormones, the patient's overall health and the age of the patient. Some of the treatments that the cancer patients may undergo are, breast conserving surgery: the removal of the affected part of the breast, mastectomy which is removing the whole breast and nipple, and axilla surgery: the removal of the affected the lymph nodes. Other procedures she stated was chemotherapy, targeted drug therapy, hormonal therapy and radiotherapy.

Before ending her talk, Dr. Naqiyah advised everyone to do breast self-examination routinely, to make an effort to do a mammogram once a year if their risk of getting breast cancer is high, and urged to seek professional help promptly once a lump around the breast has been discovered, as most women with proper treatment and early detection can lead a long healthy life. ●



According to Dr Che Atikah, all women should be able to lactate and highly encourages mothers to breastfeed their children up until the age of two.

# Dr Che Atikah Bt Che Hanafi on **Breastfeeding**

Women of today are not keen on breastfeeding their infants, with several even lacking the knowledge and skill of doing so. *Care For Life* discusses Breastfeeding and its Benefits with **Dr Che Atikah Bt Che Hanafi, Consultant Obstetrician & Gynaecologist at the Kedah Medical Centre.**

## **Finding Life's Calling**

Recalling that biology was her favourite learning subject in school, Dr Che Atikah embraces every moment of her career. The idea of saving lives and healing those who suffer was exactly what attracted her to being a doctor.

After going through all the postings in her housemanship, Dr Che Atikah was drawn to the field of Obstetrics and

Gynaecology, as witnessing childbirth felt very rewarding. Empathizing with her patients, she feels their joy and excitement with every new addition to their family.

With KPJ's reputation as a certified and well-credited healthcare service provider, Dr Che Atikah was not hesitant to join their team. Meeting the standards of safe practice, KPJ provides all the necessary facilities she needs as an Obstetrician and Gynaecology surgeon.

## **Fundamentals of Breastfeeding**

Beneficial to both mother and child, Dr Che Atikah highlights that a mother's breast milk contains adequate and balanced nutrients and constantly tailors itself to suit the needs of the



infant. Breast milk also protects the infant against infections and allergies. Additionally, the hormones released from lactation speed up the uterine contraction, reducing the post-delivery blood loss. As a bonus, breastfeeding also helps the mother lose the extra weight gained during her pregnancy. In the long term, lactation also reduces the risk of breast and ovarian cancer.

Like most medical expert bodies including the World Health Organization (WHO) and UNICEF, Dr Che Atikah recommends mothers to exclusively breastfeed their babies for a minimum of six months. “Even after introducing supplementary foods to the infant, they should continue breastfeeding until the child reaches the age of two,” she elaborates, adding that breastfeeding after the age of two is encouraged as breastmilk continues to offer valuable source of nutrition and disease protection for as long as breastfeeding continues.

As for the weaning process, Dr Che Atikah explains that it happens naturally most of the time. Once the baby has started on supplementary food, the infant’s taste and preference will start to change and will breastfeed less, indicating that it is time for the baby to start weaning. “Most women choose to decide when to wean breastfeeding but for those who choose to do it naturally, it may mean they would have to breastfeed for 4 years even,” she adds.

### Encouraging the Effort

“All women should be able to lactate,” Dr Che Atikah points out, adding that genuine pathology that hinder lactation such as under-developed breasts are extremely rare. “It all depends on the motivation, knowledge and skill of the mother herself which determines her success in breastfeeding,” she says.

Dr Che Atikah explains that expecting mothers should be taught how to breastfeed their babies so that they are ready to use that knowledge by the time the baby

arrives. Such classes are also available in KPJ hospitals and are taught during the antenatal classes attended by these expecting mothers.

The mother is not the sole factor in successful breastfeeding but the knowledge, attitudes, and the help of people around her including her spouse, family, healthcare providers, co-workers as well as employers pose a huge impact. Hence, Dr Che Atikah addresses the importance of educating the community on necessary knowledge on breastfeeding.

She also emphasizes that the implementation of Baby Friendly Hospital Initiatives in all centres providing care for pregnant and laboring mothers would enhance breastfeeding success. Baby Friendly Hospital Initiatives is a multicomponent, worldwide program launched by the World Health Organization and UNICEF that aims to transform health services so mothers and babies are provided with optimal breastfeeding support.

According to Dr Che Atikah, working mothers may find continuing to breastfeed not easy and become less motivated the moment they return to work. Support from the employer may help making breastfeeding and working possible. An onsite nursery, a private place to express breastmilk and a refrigerator to store expressed breastmilk are among facilities needed by nursing mothers at the workplace.

Breastfeeding is not always easy and requires effort. It is a personal decision but the encouragement, information and education, helping hands and social attitudes are major factors that influence the success of breastfeeding.

As a result of our healthcare team’s passion for baby safety, 12 of KPJ hospitals have been awarded Baby-Friendly Hospital Status. ●



### FAST FACTS

**Having been in the field of Obstetrics and Gynaecology for over 15 years, Dr Che Atikah is committed to help women succeed with their pregnancy and childbirth.**

**The following are a selection of her credentials:**

- 2013 – Present – Consultant Obstetrician and Gynaecologist, KPJ Kedah Medical Centre
- 2012 & 2004 – Excellence Service Award, Ministry of Health
- 2005 – Master’s in Obstetrics & Gynaecology, National University of Malaysia (UKM)
- 1997 – Graduates with an MD, National University of Malaysia (UKM)

# MEDICAL TOURISM


The KPJ Healthcare Group's Continuous  
Contribution to Nation Building



Health Care  
Doctor  
Hospital  
Pharmacist  
Nurse  
Dentist  
First Aid  
Surgeon  
Emergency

Health Care  
Doctor  
Hospital  
Pharmacist  
Nurse  
Dentist  
Emergency

**HEALTHCARE**



**T**he mushrooming of health tourism in Malaysia places us amongst the best in the world where most private hospitals in the country have internationally recognized standards of quality care. With one of the largest team of medical consultants that possess a diverse range of disciplines, the KPJ Healthcare Group is consistently contributing its skills, strengths, and resources to national aspirations, taking the leadership role in the development, regionalisation and business of medicine in South East Asia. The group provides medical treatment to more than 2.6 million international patients per year and the numbers are increasing each year which is a solid testimony of the growing popularity of Malaysia as a global medical facility. *Care For Life* goes behind the scenes with the marketing department of the KPJ Healthcare Group to find out more.

#### **Phenomenal Market Growth**

Just over a decade ago, when foreigners were asked about Malaysia's healthcare system, their response would most likely be "Where is Malaysia?" Well, that is not the case now as Malaysia is recently known around the world for both its travel attractions and quality healthcare. Lately, Malaysia was rated THE go-to destination to retire in, grabbing the number one spot in the healthcare category of the International Living's Annual Global Retirement Index 2015.

According to the International Medical Travel Journal 2016, Malaysia has won the Health & Medical Tourism award for being the Destination of the Year for the second consecutive year in a row. This is further substantiated by The 2015 Global Muslim Travel Index (GMTI) which found that Malaysia is one of the top destinations in the world within the Muslim tourism market.

To top that, the Malaysian Industrial Development Finance (MIDF) says that with the Malaysian currency at its current level, Malaysia is faring better compared to our neighbouring countries in attracting medical tourism travellers seeking medical treatments for their respective conditions.

### Bangladesh

- 1 Hospital
- Low-cost entry
- Presence in Indian sub-continent

### Thailand

- 1 Hospital
- Medical tourism agenda going forward
- Focusing upper-mid tier market segment

### Indonesia

- 2 Hospitals
- Promising demographics (growing – middle class)

### Malaysia

- 1st Hospital opened in 1981
- 1st private Healthcare Group Listed on the Bursa Malaysia
- Market cap > RM 4.5 billion
- 26 hospitals & 3 Aged Care Centres
- Target – 2 new hospitals per annum
- Accreditation: MSQH – 17 hospitals & JCI – 4 hospitals

## KPJ'S PRESENCE – MALAYSIA AND ABROAD

### Australia

- 1 Aged Care Centre in Brisbane
- Transfer of aged care know-how for Malaysian operations

### Aiming High

The management of KPJ anticipates huge possibilities for growth in medical tourism and with the current occupancy of around 64%, the group's hospitals in Malaysia would have the capacity in meeting the growing demands of patients from overseas. KPJ Healthcare Group's latest cutting-edge and innovative medical technology compounded with their supreme medical care has cemented this astounding healthcare group as Malaysia's growing medical tourism industry.

KPJ Healthcare Group is the country's largest private medical entity with a network of more than 20 hospitals nationwide. KPJ has big plans in store to create significant contributions to the medical tourism sector and will continue to bring their latest innovations to the table and at the same time, expand their services to meet patients' needs.

The ambitious healthcare group will spend close to RM1.3billion to build eight new hospitals in Malaysia over the next three to five years. This includes the KPJ Damansara Specialist Hospital 2 to be

developed at a cost of RM376million and expected to open its doors in the fourth quarter of 2019. Other hospitals will be in the states of Johor, Kuching, Miri, Klang, Malacca and Port Dickson among others. To add to this expansion, KPJ Healthcare Group has an aged care facility in Australia, a retirement and aged-care resort at Jeta Gardens, Queensland, as well as the Senior Living Care facility at KPJ Tawakkal Health Centre and the Sibü Geriatric Health and Nursing Centre in Sibü, Sarawak.

**In The Spotlight**

Many of the health tourism patients who visit KPJ Healthcare Group are from Indonesia, Libya and Somalia seeking expertise in oncology, orthopaedics, neurology and heart treatment. As for international patient resources within Malaysia, they have foreign agents in several key markets overseas that help patients select a KPJ hospital that best suits their treatment needs.

Predominantly a Muslim country, KPJ also takes into consideration the needs and services required by the Muslim international patients such as to provide both halal food and medication, giving leeway for Azan (call to prayer), assigning doctors & nurses of the same gender with the patients, providing prayer rooms for families and visitors or the “Kiblat” direction in patient rooms and assisting with Muslim funeral arrangements.


**International Experiences**

KPJ Healthcare Group offers a wide range of health packages to international patients including general executive screening, general executive screening plus, premier well man package, premier well woman package and other packages that include cosmetic surgery, eye surgery, physio & rehabilitation, cardiology, gastrointestinal surgery and orthopaedic.



**Malaysia won the “Health & Medical Tourism: Destination of the Year” for the 2nd consecutive year.**

– International Medical Travel Journal 2016




## Muslim Friendly Policies in KPJ Hospitals


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**Comprehensive Services**

International Patient Centres (IPC), translators, facilitators, etc., on hand to assist patients from arrival to discharge; doa before surgery



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**Informed Choice**

Our doctors and nurses have a duty to advice patients on the contents of medication or drugs i.e. porcine based products

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**Food**

Served & prepared at our hospitals are Halal Certified by Department of Islamic Development Malaysia (JAKIM)



When they arrive here, international patients can choose accommodations ranging from private suites to rooms. The facilities that KPJ Healthcare Group has can range from comfortable to luxurious. In addition to that, meals and extra rooms for the patient’s travel companion are also included.

A country comprised of different ethnicities living harmoniously, with good climate all year around, and the friendly citizens that Malaysia is renowned for has made this developing Southeast Asian nation a popular destination for medical tourism. This ties in with one of the objectives of pooling international patients to KPJ. For example, the newly launched KPJ Pahang Specialist Hospital, the 26th specialist hospital under KPJ Healthcare Berhad is aiming make up a component of its patients in years to come through health tourism, as the hospital’s scenic view of the Kuantan’s sea on one side and the town on the other make it very attractive for the international patients.

As Malaysia approaches its vision of becoming a developed country by 2020, medical tourism is considered a major driver towards this goal. Medical tourists are observed to increase steadily in Malaysia due to the governments’ promotion of Malaysia as an international healthcare destination resulting in increased revenues for the country. KPJ Healthcare Group’s inimitable efforts venturing into the world of medical tourism has established them as a force to be reckoned with, for now and years to come. ●

• **Special Feature**

# Love Your Liver

Prioritising the care for the largest organ of the body

**M**any might not know this, but the liver is the largest gland in the human body and can weigh up to 1.5-1.6 kg for a human adult. Like the heart, the liver carries numerous functions and it is impossible to replicate these functions with artificial organs. Hence, it is imperative for all individuals to be cognizant about their liver's health and to take care of its largest internal organ.



The liver is a large meaty wedge-shaped organ that sits on the right side, specifically the right upper quadrant of the abdominal cavity and partly protected by the rib cage. It is normally reddish-brown in colour and feels rubbery to the touch. The liver is separated into two large sections called the right and left lobes. Under the liver sits the gallbladder along with the parts of the pancreas and intestines.

### Crucial Functions of the Liver

Being the largest gland in the human body, the liver has multiple functions. It undergoes most of the chemical functions that is required by the body to function properly. It serves as a detoxifying agent, as a storage unit, and in the breaking down of fats.

Similar to the kidneys that filter the blood, all the blood leaving the stomach and the intestines passes through the liver. When this happens, the liver processes the blood and breaks down, balances and creates nutrients for the body to use.

Another important duty that the liver undergoes is detoxifying the body by converting ammonia into a by-product of metabolism in the body, into urea that is excreted by the kidneys in the form of urine. Apart from that, the liver also helps in breaking down substances such as medications, alcohol, hormones and insulin.

In the case of the liver acting as a storage unit, the liver has a plethora of vitamins and chemicals that the body requires as building blocks. Some of them are vitamin B12, folic acid, vitamins A, D and K and iron.

### Labelling the Disease

The majority of the liver diseases strike the liver directly or can arise as a consequence of an illness that begins in another organ. The four main types of disease that the liver can acquire are fatty liver, cirrhosis, hepatitis and infections.



## IS IT HEREDITARY?

Liver disease can be inherited. However, most cases are caused by a variety of factors such as alcohol abuse, viruses and obesity.



Having the understanding that liver disease can be hereditary may help an entire family create a healthy lifestyle.

The fatty liver condition usually happens as a result of the accumulation of cholesterol and triglycerides within the liver that is not related to alcohol abuse. Fatty liver disease is also known as non-alcoholic fatty liver disease (NAFLD) and non-alcoholic steatohepatitis (NASH).

Cirrhosis of the liver is often described as a condition of scarring in the liver that is not reversible and may lead to liver failure. Unlike the fatty liver disease, cirrhosis can happen by drinking excessive alcohol.

The inflammation of the liver caused by viruses is called hepatitis. The five main types of hepatitis are hepatitis A, B, C, D and E. Types B and C lead to most chronic diseases in hundreds of millions of people and is the most common cause of liver cirrhosis and cancer. Hepatitis A virus (HAV) is often spread by poor sanitary habits, for example, poor handwashing and contaminated food or water.

Hepatitis B virus (HBV) can be transmitted through exposure of infected blood, semen and other body fluids. Mothers of infected B virus can also transmit to their infants at the time of birth or from a family member to an infant in early childhood. Apart from that, transmission through blood transfusions, contaminated injections during medical procedures and through drug use are all ways that someone can pick up this virus. Hepatitis C virus (HCV) is almost similar to the B virus, but sexual transmission is less common.

Hepatitis D virus (HDV) infections only occur if the person is already infected with HBV. This dual infection of HDV and HBV can result in more serious diseases and even worse consequences. However, to prevent this from happening, hepatitis B vaccines can help in chances of being infected.

Hepatitis E virus (HEV) is akin to HAV but it is mostly transmitted through consumption of contaminated water or food. This virus is most commonly found in developing parts of the world and is increasingly recognised as an important cause of disease in developed countries.

### **Investigating the Problem**

Diagnosing liver disease can be a tricky task because the symptoms can be vaguely confused with other health problems. Sometimes, there are cases where an individual's liver has been significantly damaged but the person may not be experiencing any of the aforementioned conditions.

If a doctor suspects that an individual is suffering from liver disease, he or she will want to discuss any of the possible factors they may have been exposed to. To reiterate, some of these risk factors are blood transfusions, exposure to blood products and sexual activities among others. The physician may look for the symptoms via physical examination by checking for jaundice and to see if there is any swelling in the abdomen area or tenderness in the liver area.



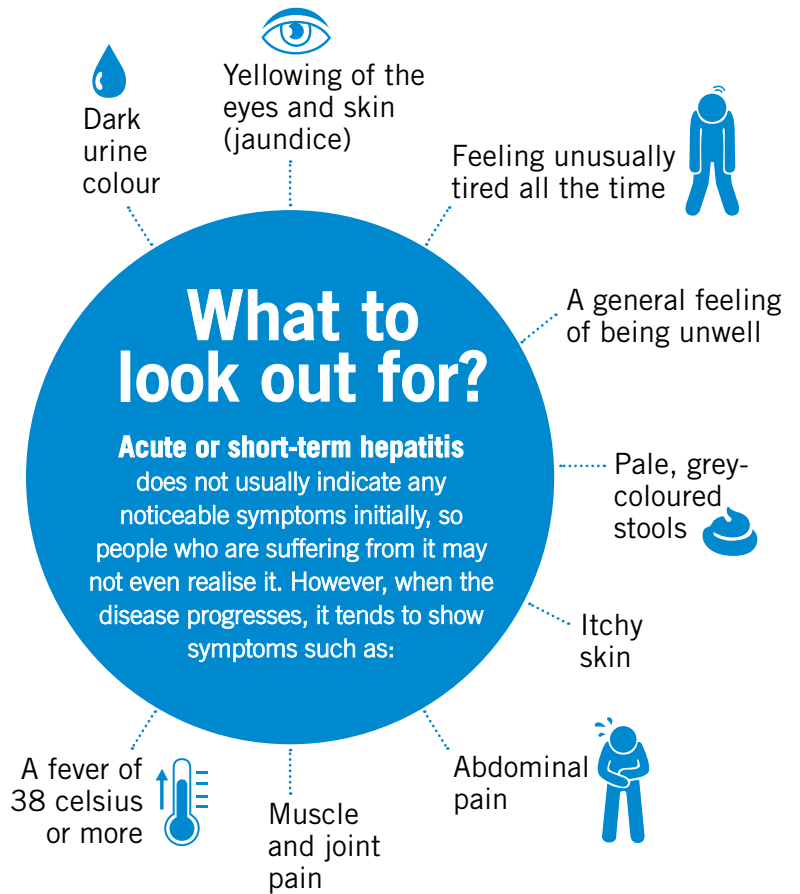
The Hepatitis C virus is most likely to infect someone through blood transfusion.

Besides patients undergoing a physical examination, blood tests can also be done to find any presence of liver inflammation and to screen for antibodies or virus particles that might indicate a specific form of liver disease. Sometimes patients may have to undergo a liver biopsy, in which the doctor will insert a thin needle into the liver to remove a small piece of tissue to examine under a microscope. An imaging test can be called for to detect specific forms of liver and to analyse the extent of scarring of the liver. These tests include an ultrasound, computerized tomography (CT), magnetic resonance imaging (MRI), endoscopic retrograde cholangiopancreatography (ERCP) and magnetic resonance cholangiopancreatography (MRCP).

### **What is Happening in Malaysia?**

In Malaysia, some 60% of the population are at risk of dying due to fatty liver. According to Malaysian Liver Foundation (MLF) president Tan Sri Ismail Merican this is a worrying number that could affect the overweight or the obese. He even mentioned that many Malaysians may not even realise they are suffering from fatty liver and that





It's best to practice good hygiene when preparing your meals as the hepatitis A and E virus is mostly transmitted through contaminated food or water.

most fatty liver diseases arise from the sedentary lifestyle of the citizens which cause cardiovascular complications and indirectly cause this disease. Furthermore, the Minister of Health, Datuk Seri Dr. S Subramaniam in the year 2014 reminded Malaysians to be aware of this disease that can lead to chronic liver disease and ultimately liver cancer.

The records show Malaysia and other countries in Southeast Asia have the highest number of hepatitis cases spread vertically, as it was passed from the mothers during childbirth. In Malaysia, there are far more cases of Hepatitis B as compared to Hepatitis C, and it is known that around 1.1 million Malaysians are suspected to suffer from Hepatitis B.

## The Love Your Liver Health Screen Package

KPJ Healthcare recognises the life-threatening conditions of this disease and provides a solution by giving the citizens of Malaysia a comprehensive health screening package for the liver at an affordable price. This liver package includes a physical examination by a Medical Officer (MO), a blood test which includes: full blood count, renal profile, fasting blood sugar, fasting serum lipid, liver function test, hepatitis B antibody and antigen, Hepatitis C and alpha fetoprotein and finally an ultrasound of the abdomen.

The price for the medical examination, consultation by the doctor, laboratory and imaging services can be done by purchasing a voucher worth RM 300 (not inclusive of GST) and is not exchangeable for cash. The voucher is valid from 15th September to 31st December 2016 and individuals are entitled to one redemption per voucher and the original voucher must be presented to any KPJ Hospital upon redemption. Individuals can book for an appointment at their preferred KPJ Hospitals.

## Preventive Measures

One of the best ways to prevent liver disease is to decrease the risk of developing cirrhosis or hepatitis. Some of the preventive measures that you can apply are:

- *Getting a hepatitis vaccine or an immunoglobulin shot to prevent hepatitis A and B.*
- *Having a balanced diet which includes all of the food groups.*
- *Drink alcohol in moderation, and avoid alcohol when you are under the prescription of acetaminophen.*
- *Always have a habit of practicing proper hygiene. The most common way germs are spread is through contact, so make sure to wash your hands thoroughly after you use the bathroom and before you touch any food.*
- *Handle any blood products with extreme caution.*
- *Do not share any of your personal toiletries, including toothbrush and razors.*
- *If you are planning to get a tattoo or body piercing, be certain of the sanitary conditions of all equipment and that they are sterile.*
- *Practice safe sex by using contraceptives to prevent the spread of sexually-transmitted diseases (STDs).*

## Treatment of Liver Failure

Any damage to the liver, if detected early enough, can be treated. Acute liver failure which is caused by the drug acetaminophen can be treated when detection is made at an early stage and the effects can be reversed. This also applies to liver diseases which are caused by viruses. Supportive care can be given at a hospital to treat the symptoms until the virus has been fully eradicated. In some cases the liver sometimes can recover on its own.

For the cases when the liver has gone through severe scarring and long-term deterioration, the primary treatment goal would be to save the healthy parts of the liver that is still functioning. If this method is not possible then a liver transplant is warranted and fortunately liver transplants are a common procedure and are often successful. ●

**RM 300**

**LOVE YOUR LIVER**

\*T&C APPLY | Valid from 15th September 2016 - 31st December 2016

### Terms & Conditions

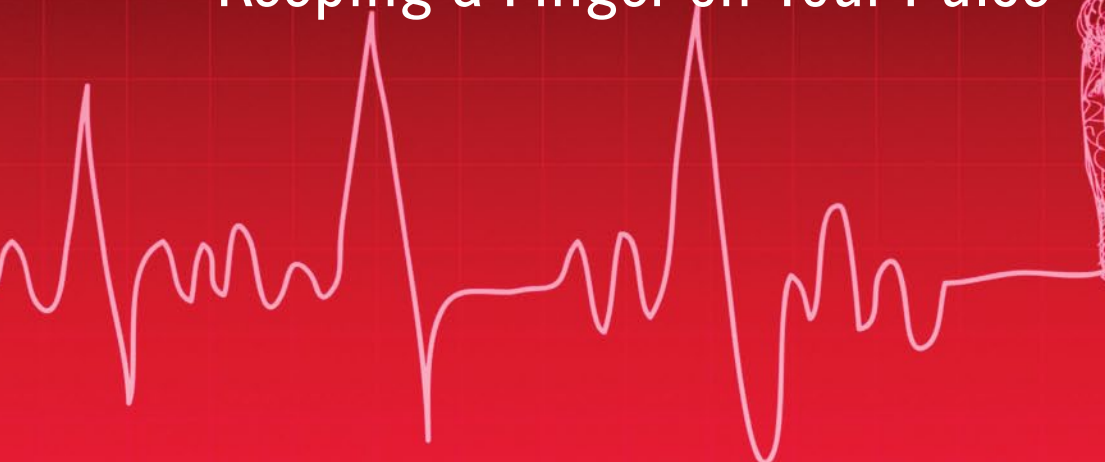
Valid from 15th September 2016 - 31st December 2016  
 This voucher is **NOT** exchangeable for cash  
 This price **does not include 6% GST**  
 Limited to **one (1)** redemption per voucher  
 Original voucher must be presented to **KPJ Hospital** upon redemption  
 For appointment, please call your preferred **KPJ Hospital**

CENTRAL REGION	SOUTHERN REGION	EAST COAST REGION	SABAH & SARAWAK
KPJ AMPANG PUTERI SPECIALIST HOSPITAL TEL: 603-4210 2500	KPJ JOHOR SPECIALIST HOSPITAL TEL: 607-225 3500	KPJ PERDANA SPECIALIST HOSPITAL TEL: 609-785 8500	KPJ SABAH SPECIALIST HOSPITAL TEL: 6086-211 8333
KPJ DAMANSARA SPECIALIST HOSPITAL TEL: 603-7718 1000	KPJ PUTERI SPECIALIST HOSPITAL TEL: 607-225 3222	KPJ PAHANG SPECIALIST HOSPITAL TEL: 609-5112 892	KPJ DAMAI SPECIALIST HOSPITAL TEL: 6088-222 922
KPJ SELANGOR SPECIALIST HOSPITAL TEL: 603-5583 1111	KPJ SEREMBAN SPECIALIST HOSPITAL TEL: 606-747 8900	KPJ IPOH SPECIALIST HOSPITAL TEL: 605-240 8777	KPJ KUCHING SPECIALIST HOSPITAL TEL: 6052-365 777
KPJ KAJANG SPECIALIST HOSPITAL TEL: 603-8768 2099	KPJ KLANG UTAMA SPECIALIST HOSPITAL TEL: 601-77 8999	KPJ PENANG SPECIALIST HOSPITAL TEL: 604-348 6688	SIBU SPECIALIST MEDICAL CENTRE TEL: 6084-329 900
KPJ SERIOKAR EL SPECIALIST HOSPITAL TEL: 603-6243 7166	KPJ PASIR GUDANG SPECIALIST HOSPITAL TEL: 607-257 3999	EDDAH MEDICAL CENTRE TEL: 404-730 8878	
KPJ KLANG SPECIALIST HOSPITAL TEL: 603-8377 7888	KPJ BANDAR MAHARANI SPECIALIST HOSPITAL TEL: 608-126 4300	TAIPING MEDICAL CENTRE TEL: 926-857 1149	
KPJ RAWANG SPECIALIST HOSPITAL TEL: 603-6099 8999		SRI MANJUNG SPECIALIST CENTRE TEL: 602-691 8158	

Special Feature

# A HEARTY ISSUE

## Keeping a Finger on Your Pulse



**T**he heart first starts beating less than a month after conception, when the human foetus is just a tiny mass in its mother's womb. It will continue to beat – on average – about 70 times a minute, 100,000 times a day and 35 million times a year for the rest of the person's life. During an average lifetime, this organ will rack up an incredible 2.5 billion beats, enough to pump roughly 316 million litres of blood! While it is a tireless worker, the heart is not immune to certain diseases and conditions which may hinder it from carrying out its duties effectively. *Care for Life* helps you widen your understanding of this indispensable organ.



## RISKY MALADIES

Heart diseases are worryingly common in Malaysia. In fact, coronary heart disease has been attributed as the top cause of death in the country, holding this unpleasant title for the past several years. Also in the top ten list are stroke and hypertension.



The earlier you consult a specialist about a heart condition, the better. Therefore, if you experience abnormalities with your heart or cardiovascular system, it is best to set up an appointment with a doctor immediately.

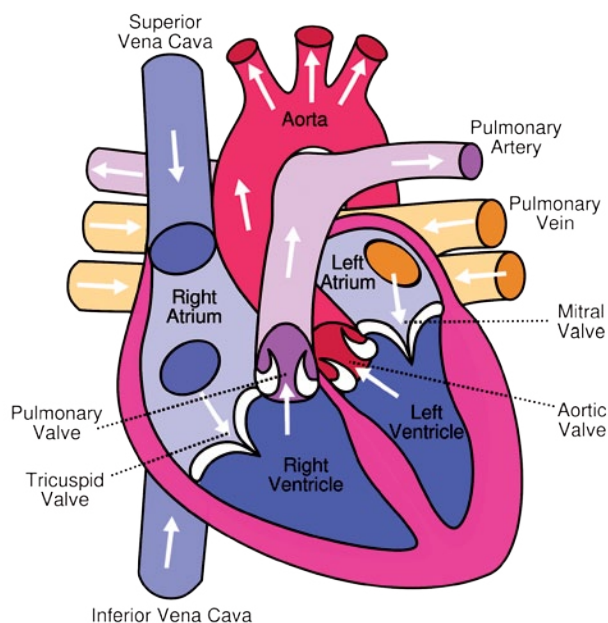
### Power in Numbers

At the heart of the circulatory system is, well, the heart. This muscular organ is the one responsible for ensuring that blood – which serves many functions of its own such as supplying the cells with oxygen and nutrients, removing metabolic wastes and combating diseases – is pumped to the furthest reaches of the body.

Make a fist with your hand, and you will have an idea of how big your heart likely is. Within this 250–350 gram mass, which measures about 12 centimetres long, 8 centimetres wide and 6 centimetres thick, are four chambers: two atria on the upper part of heart and two ventricles on the lower.

The left atrium and right atrium are called the receiving chambers, and the left and right ventricles are known as the discharging

## HEART ANATOMY



chambers. Separating the two ventricles is the interventricular septum. Atrioventricular valves control the flow of blood between the atria and ventricles.

The mitral valve (bicuspid valve) and the tricuspid valve are between the atria and the ventricles, while the two semilunar valves, the aortic valve and the pulmonary valve, are in the arteries leaving the heart.

### Down a Well Beaten Path

Deoxygenated blood from the body enters the right heart via two large veins – the superior and inferior venae cavae – and collects in the right atrium. The right atrium then contracts, pumping the blood into the right ventricle through the tricuspid valve.

Subsequently, the right ventricle contracts, closing the tricuspid valve and forcing the blood through the pulmonary valve and into



## FAST FACTS



### Facts to Learn by Heart

- ♥ Blood takes about 20 seconds to circulate throughout the entire vascular system.
- ♥ A typical athlete's heart churns out up to 30 litres of blood per minute.
- ♥ Your system of blood vessels - arteries, veins and capillaries - is about 100,000 kilometres long. That's long enough to go around the world more than twice!
- ♥ Put your hand on your heart. Did you place your hand on the left side of your chest? Many people do, but the heart is actually located almost in the centre of the chest, between the lungs. It's tipped slightly so that a part of it sticks out and taps against the left side of the chest, which is what makes it seem as though it is located there.
- ♥ Give a tennis ball a good, hard squeeze. You're using about the same amount of force your heart uses to pump blood out to the body. Even at rest, the muscles of the heart work hard – twice as hard as the leg muscles of a person sprinting.
- ♥ Feel your pulse by placing two fingers at pulse points on your neck or wrists. The pulse you feel is blood stopping and starting as it moves through your arteries. As a child, your resting pulse might range from 90 to 120 beats per minute. As an adult, your pulse rate slows to an average of 72 beats per minute.
- ♥ The aorta, the largest artery in the body, is almost the diameter of a garden hose. Capillaries, on the other hand, are so small that it takes ten of them to equal the thickness of a human hair.
- ♥ The structure of the heart was first described in 1706, by Raymond de Viessens, a French anatomy professor.
- ♥ The electrocardiograph (ECG) was invented in 1902 by Dutch physiologist Willem Einthoven. This test is still used to evaluate the heart's rate and rhythm.

Source: Arkansas Heart Hospital

## Identifying Heart Diseases

There are several tests that are employed to determine and diagnose heart diseases. These tests are chosen and performed depending on your symptoms, risk factors, and history of heart problems. Among these tests are:



**Chest X-ray**



**Computed tomography (CT) scan**



**Echocardiogram**



**Electrocardiogram (ECG or EKG)**



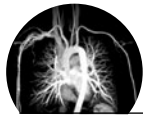
**Stress test**



**Event monitor or Holter monitor**



**Magnetic resonance imaging (MRI)**



**Magnetic resonance angiography (MRA)**



**Multigated graft acquisition (MUGA) scan**



**Positron emission tomography (PET) scan**



**Radioisotope stress test**

the pulmonary trunk, which eventually leads to the capillaries in the lungs. Here is where the blood's carbon dioxide is exchanged for oxygen.

Oxygenated blood is returned to the organ via the left heart. It makes an entry at the left atrium by way of the pulmonary veins. The blood is then pumped through the mitral valve and into the left ventricle, before finding its way to the aorta through the aortic valve.

The aorta is essentially a large artery that connects to the body's circulatory system, from smaller arteries to capillaries. Therefore, blood can reach the cells in the body and deliver its payload of that has oxygen and nutrients for metabolism.

### The Lub Dub Hub

A complete heartbeat is also referred to as the cardiac cycle, and includes the systole and diastole and the pause in between. The systole is when the atria or ventricles contract and diastole refers to the relaxation of these chambers.

This cycle starts when the atria contract and concluded with the relaxation of the ventricles. These two chambers operate in coordinated alternation. For instance, when in ventricular systole the ventricles contract while the atria relax. In ventricular diastole, the ventricles relax and collect blood pumped by the contracting atria.

Atrial systole pumps blood into the ventricles, increasing the pressure in the ventricles. As the ventricles approach systole, blood will be pumped into the pulmonary artery in case of the right ventricle or aorta in the left ventricle.

When the atrioventricular valves are open, allowing blood to flow into the ventricles,

## Diseases of the Heart

The heart can be the victim of many diseases and conditions; in fact the list can be almost as significant as the importance of the organ itself. A few of these may not affect the heart directly, but afflict the cardiovascular system.

The following is a collection featuring some of these culprits.

Rheumatic heart disease	Hypertensive heart disease	Ischemic heart disease	Cerebrovascular disease	Inflammatory heart disease
<p>Rheumatic heart disease is caused by one or more attacks of rheumatic fever, which then do damage to the heart, particularly the heart valves. Rheumatic fever usually occurs in childhood, and may follow a streptococcal infection. In some cases, the infection affects the heart and may result in scarring the valves, weakening the heart muscle, or damaging the sac enclosing the heart. The valves are sometimes scarred so they do not open and close normally.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>▶ Valvular heart disease</li> <li>▶ Rheumatic heart disease</li> </ul>	<p>High blood pressure of unknown origin (primary hypertension) or caused by (secondary hypertension) certain specific diseases or infections, such as a tumour in the adrenal glands, damage to or disease of the kidneys or their blood vessels. High blood pressure may overburden the heart and blood vessels and cause disease.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>▶ Aneurysm</li> <li>▶ Atherosclerosis</li> <li>▶ Peripheral arterial disease</li> </ul>	<p>Heart ailments caused by narrowing of the coronary arteries and therefore a decreased blood supply to the heart.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>▶ Angina</li> <li>▶ Coronary heart disease</li> <li>▶ Heart attack</li> </ul>	<p>Disease pertaining to the blood vessels in the brain. A cerebrovascular accident or stroke is the result of an impeded blood supply to some part of the brain.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>▶ Cerebral vascular disease</li> <li>▶ Stroke</li> </ul>	<p>Inflammation of the heart muscle (myocarditis), the membrane sac (pericarditis) which surrounds the heart, the inner lining of the heart (endocarditis) or the myocardium (heart muscle). Inflammation may be caused by known toxic or infectious agents or by an unknown origin.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>▶ Cardiomyopathy</li> <li>▶ Pericardial disease</li> </ul> <p>Others</p> <ul style="list-style-type: none"> <li>▶ Congenital heart disease</li> <li>▶ Heart failure</li> </ul>

Source: World Heart Federation

the aortic and pulmonary valves are shut to stop backflow into the ventricles. As the ventricular pressure rises and surpasses the atrial pressure, the atrioventricular valves will close. The ventricles then contract, and the pressure build-up opens the aortic and pulmonary valves.

The shutting of these valves are the sounds heard during heartbeat – ‘lub dub’. The closing of the atrioventricular valves during ventricular systole creates the ‘lub’, while the

‘dub’ is produced by the aortic and pulmonary valves during the ventricular diastole.

If you suspect you may have an issue with your heart, or have a family history of heart-related conditions, you should consult a heart specialist as soon as possible to establish if you are affected by, or at risk of contracting any. KPJ has numerous such specialists stationed at its network of hospitals, whose vast expanse of experience in cardiology means that you are guaranteed a quick and accurate diagnosis. You would then be furnished with superior quality medical advice and care that have defined our healthcare brand. ●

# Not All Heroes Wear Capes

## The Men and Women of the Renal Dialysis Center, KPJ Klang Specialist Hospital

**T**he kidneys are powerful chemical factories that perform one of the crucial functions for the body, namely to remove waste products from the body. If these functions are compromised, alternative methods of filtering the blood can be used. Undergoing haemodialysis is akin to what our kidneys do to our body. It cleanses the blood and toxins, extra salts and fluids by filtering our blood through a dialysis machine which acts like an “artificial kidney.” At KPJ Klang Specialist Hospital, patients who suffer from renal failure receive excellent service via this treatment. *Care for Life* sat down with Mohamad Hafiz, Senior Staff Nurse, for a more in-depth look at how things roll in the dialysis centre.







The nurses are keen to win and secure the loyalty of patients who pass through KPJ Klang Specialist's Hospital front doors by ensuring that the hospital's high standards never falter.

### A Tedious Process

Mohamad Hafiz was working in KPJ Selangor for one and a half years before joining KPJ Klang, where he has been working for almost four years now. He did his Diploma in Nursing and took post basic courses on haemodialysis services and reverse osmosis (RO) to name a few. His day starts as early as 6.30am for the first shift and begins with prepping all the equipment for the patients. He starts by turning on the RO machine for all 19 machines that are available. KPJ Klang uses dialysis machines specifically from Gambro and B-Braun.

He then continues to prime the machine ever so carefully by putting up the saline solution, placing the venous blood line tubes, the arterial blood line tubes and the dialyser. The nurses then prepare for cannulation, a technique in which a cannula is placed inside a vein to provide venous access. The needles they use range from small to large, the smallest being 17g.

The next process is to calculate the patient's Ultrafiltration

**Previous page:** KPJ Klang Specialist Hospital's dedicated team of nurses comprised of many of their senior staff including Dr Lim Choo Gee (front row center), the Renal Dialysis Center's Nephrologist, Sister Neelavani (back row center), Unit Manager of the Renal Dialysis Center and Mohamad Hafiz (extreme right), the resident Senior Staff Nurse.

Rate (UFR). This step is vital as patients receiving haemodialysis have high cardiovascular morbidity and mortality rates that might be related to the effects of rapid ultrafiltration. Ultrafiltration rate is needed to be calculated through a patient's weight gain with their dry weight. It is called intradialytic weight gain. For dialysis patients, an increasing amount of fluid extracted will potentially give rise to cardiac complications.

Other complications Mohamad Hafiz mentioned was patients experiencing low blood pressure, nausea, vomiting and headache. Because patients go through dialysis three times a week and thirteen times a month, complications may arise and it is important to manage it, especially the patient's blood pressure (BP). The nurses always check their BP level, and if during the duration of their treatment the pressure drops, nurses will infuse a normal saline solution to raise and stabilise the patient's BP. As for hypertensive patients, their BP will be quite high prior to treatment. After the effects of dialysis, their BP will return back to normal.

### Working Together

The youngest patient ever to undergo dialysis treatment in the hospital was a 15-year-old who eventually underwent a successful kidney transplant. Elderly patients make up most of the dialysis population. "Some patients are transferred from the government hospitals because



Mohamad Hafiz describes the quality of care that KPJ provides for residents of the Center as the water in the tanks are constantly monitored and replaced with clean water on every shift, that offers patients peace of mind, knowing they will go through the process of ultrafiltration effortlessly and absent of any threat of health hazards.

their centres are full,” said Mohamad Hafiz. He continued, “Some of the international patients we have are from Indonesia and Kuwait, but they have to book their spot 2 weeks in advance.”

Mohamad Hafiz also spoke about the importance of emotional and moral support to the patients apart from their usual medical care. This has a great positive impact on their long-term well-being.

The nephrologist’s role includes frequent visits to the dialysis centre to monitor the progress of the patients, following up on their medication and reviewing their blood test results. Besides specialist doctors, Mohamad Hafiz says patients and nurses are all “*Satu Keluarga*” (One Family) in which everyone is treated like family. “We have patients coming from different countries, who

## >>> BECAUSE PATIENTS GO THROUGH DIALYSIS THREE TIMES A WEEK

and thirteen times a month, complications may arise and it is important to manage it, especially the patient’s blood pressure.

would stay here for a month or so, and we talk like we’ve known each other for ages!”

When asked about the aim of the dialysis centre in patient care, Mohamad Hafiz says that it is “to always be welcoming and to maintain proper emotional intelligence because if we become too emotional, it will complicate the process even more.” Other facets for patient care is to ensure all schedules are up-to-date and to make sure of patients’ compliance in terms of medications they receive.

### Quality Control and the Challenges

After the dialysis procedure, the machines have to be cleansed and sterilised. The circuit loop is then cleaned with saline or sterilised water through the system to flush away all impurities. In KPJ Klang’s dialysis

centre, the machines are closely monitored for their filters, dialysers, blood pumping machinery, and most importantly, Plan Preventive Maintenance (PPM) machines.

Whenever the staff handles the dialysis machine, it is mandatory for them to practice universal precautions. It is imperative to prevent cross-infection to the patients, as well as for hospital personnel's protection. Another aspect that the staff needs to be aware of are needle-prick injuries, as they are one of the most common hazards to staff in the dialysis centre.

Mohamad Hafiz conveyed some of the challenges he faced as a dialysis nurse. He says the water shortage in the state of Selangor can



**Above:** The KPJ Klang Specialist Hospital gives their patients nothing short of excellence as the haemodialyzer, where filtering of the blood takes place is regularly replaced with new, clean equipment that act to prevent any infections or unsafe treatments from being contracted.

**Left:** The dangers of renal failure is that our body can no longer process and remove bodily wastes and excessive fluid through excretion. Thus, sufferers of this condition have come on haemodialysis treatment, where blood is removed from the body and filtered in the haemodialyzer machine, whereupon the newly cleaned blood and fluids flow back into the body.

compromise the process of dialysis and it can also mess up the patient's schedule.

Educating patients on dialysis and convincing them that going through dialysis is really not that bad, and helping them see the bigger picture on treating their kidney conditions are just some of the responsibilities of Mohamad Hafiz. Tracking their diet and medications and ensuring that they are following the doctor's orders are also his main priorities in helping the patients go through this ordeal. ●





# DEEP BREATHS

## Bronchopulmonary Dysplasia

Infants—especially when born prematurely—who have breathing problems after birth, such as respiratory distress syndrome (RDS) and need assistance to breathe for an extended period are at risk of bronchopulmonary dysplasia (BPD - also called chronic lung disease). While children are not born with BPD and most infants fully recover with few long-term health problems, the disorder can be fatal and requires intensive medical care.

While BPD occurs predominantly in premature babies, it also occasionally affects full-term infants who are born with lung disorders such as pneumonia. BPD is a result of damage to the lung tissues of infants after they have been placed under assisted breathing or ventilators for an extended period of time.

The air sacs in the delicate lung tissues become over-stretched or injured when exposed to the high oxygen levels of the ventilator. As a result, affected babies may not develop the normal number of air sacs, while their lungs could get inflamed and collect additional fluid.

### Causes and Risk Factors

Babies born more than 10 weeks before their due dates, weigh less than 2,000 grams and have breathing problems at birth are also more likely to develop BPD. RDS which occurs shortly before or after birth means that the infants require the assistance of mechanical ventilators to support their infected or immature lungs.

In many situations, the pressure of the supplied oxygen (delivered to the lungs through a tube connected to the baby's windpipe) must be higher than that in normal air for the babies to survive. RDS is considered BPD if infants still require the assistance of a ventilator to breathe after their original due dates or 36 weeks of post-conceptual age. This is because over time, the high pressure and concentration of oxygen from the ventilator could significantly injure the delicate lung tissue of newborns.



One of the ways medical professionals diagnose and confirm the presence of chronic lung disease and respiratory distress syndrome is with chest X-rays.

## >>> NOT UNCOMMON

Along with asthma and cystic fibrosis, BPD is one of the most common chronic lung diseases in children.

The more premature an infant is and the lower the weight, the more likely they are to have BPD. In some situations, newborns who have mild or no RDS also develop BPD from other conditions such as patent *ductus arteriosus* (a heart problem) and *sepsis* (a bacterial infection in the bloodstream). In addition, maternal smoking or use of illicit drugs, malnutrition and infections during the pregnancy may affect the normal growth of the foetus, and results in premature labour, development of respiratory distress syndrome and eventually to BPD.

### Signs and Symptoms

One of the first symptoms of BPD is premature infants—those born more than 10 weeks before their due date—requiring oxygen therapy by the time they reach their original due dates. Other common symptoms of BPD include rapid, shallow breathing, sharp pulling in of the lower chest below and between the ribs with each breath, wheezing and grunting sounds, bluish discoloration of the skin around the lips and nails due to low oxygen in the blood, repeated lung infections and poor growth.

Infants with severe BPD may also develop pulmonary hypertension owing to increased pressure in the pulmonary arteries, which in turn can lead to *cor pulmonale*—failure of the right side of the heart. Babies with BPD may have trouble feeding, which can lead to delayed growth.

### Diagnosis and Treatment

BPD can be mild, moderate, or severe depending on the amount of oxygen that an infant requires by the due date. Some of the most important factors in diagnosing BPD are

mechanical ventilator dependence, respiratory infections and oxygen exposure—which is measured by the amount of oxygen in the blood as well as chest X-rays.

In babies with RDS, chest X-rays may show what resembles ground glass in the lungs, while in infants with BPD, the lungs appear spongy. An echocardiography sound wave test may also be used to create a moving picture of the heart to more accurately determine that the cause of an infant's breathing problems are not heart defects or pulmonary hypertension.

While severe BPD can be fatal even after extended periods of care, most infants survive with treatment as the effect of the injuries to the lungs declines and new healthy tissues grow. A number of methods can be used to treat the disorder.



These include the use of medications such as cardiac drugs, viral immunisation, diuretics, corticosteroids and bronchodilators. To different degrees, these medicines help relax the muscles of the lungs and the surrounding blood vessels, allowing an easier passage of blood to reduce strain on the heart. Corticosteroids also help in reducing and preventing swelling and inflammation in the lungs, while diuretics minimise the amount of fluid in the alveoli.

Infants with BPD should be shielded from getting colds and other respiratory infections, which can cause severe lung infections. Later on in life, such children are at an increased risk of developing disorders such as asthma. They may also require oxygen therapy for an extended number of weeks or months after they leave the hospital.



If properly treated, children with BPD can grow up to have normal healthy lungs and lives.

Parents of infants with BPD should also note that the babies have a different and increased energy nutritional requirement. This includes maximising the intake of carbohydrates, trace metals, vitamins, fat and proteins, with vitamin A and E and antioxidant enzymes supplements. Amount of water administered should also be restricted to avoid fluid overload.

### Prevention

For pregnant mothers, preventing the occurrence of BPD means visiting a doctor for prenatal checks regularly to ensure that the chances of a premature birth are minimised. Pregnant mothers should also follow a healthy diet and lifestyle—avoiding smoking, tobacco, alcohol and illegal drugs.

Any ongoing medical conditions should also be put under control during prenatal care to prevent complications and infections. As a precautionary measure, doctors may give a corticosteroid medicine injection if they suspect a pregnant mother will have a premature child delivery. Corticosteroids help faster development of an infant's lungs, brain, and kidneys in the lungs, and builds surfactant—liquid coating in the infant's lungs that facilitates breathing—in babies and reduce the occurrence of RDS.

With the regenerative growth of lung tissues after birth and throughout childhood, infants with BPD generally tend to get better as they get older. While babies with BPD may not fall ill more often than other children, it is advised that they receive regular evaluations from a lung specialist during the first few years of life to ensure that they do not have any complications as they get older. ●



Pregnant mothers can help minimise the risk of BPD occurrence in their infants by practicing healthy lifestyles.

# Dr Syah Irwan Shamsul Bahari on Bunions

Bunions have become widely known in the entertainment industry as fashion-dedicated media point out the unsightly bunions that blemish the red carpet look of Tinseltown. However, bunions are more than a mere cosmetic issue, as they could inject pain in every stride. Care For Life steps into the office of **Dr Syah Irwan Shamsul Bahari, Consultant Orthopaedic, Foot and Ankle Surgeon at KPJ Seremban Specialist Hospital** and has a chat with him about this problem.

## A Challenge Seeker

“Medicine appealed to me when I was younger because studying it was a formidable prospect, and I was – and still am – a sucker for challenges,” Dr Syah reveals. “Plus, I found the idea of learning about the functions of the human body to be a highly interesting one. That is how I ended up becoming the first doctor in the family.”

During his medical training, he learnt that surgery is a more hands-on approach. “I am able to treat the problem with my skills rather than just prescribing medication and hoping for the best. Therefore early on I knew that I would be at home in the operation theatre,” he tells us. “I found that orthopaedics spoke to me as I can see the results of my work pretty quickly – someone comes in with a broken bone, I mend it and they are up and about in no time.”

Later, Dr Syah decided to specialise in foot and ankle surgery, as it appealed to his challenge-loving side. “It was a budding, untested member of the orthopaedic family and there are not many doctors in this subspecialty. In fact, there are only about 10 of us in Malaysia!” Prior to coming back to Malaysia, Dr Syah was accumulating his foot and ankle surgical experience practising in Ireland.



Dr Syah advises patients to adopt the simplest solution to their problem, which is to choose footwear that accommodates their bunions, and only explore other remedial avenues such as surgery if absolutely needed.

He would still be there today, if not for a visit by TalentCorp Malaysia which was scouring the United Kingdom for Malaysian diaspora a few years ago. They brought with them several companies, including KPJ. “KPJ offered me a place in an innovative specialist training programme they were exploring in Malaysia. I accepted and commenced sessional work in the KPJ University College, in between performing visiting consultations at several KPJ hospitals to build up foot and ankle surgery expertise within the group. In 2013, I became a resident consultant at KPJ Seremban Specialist Hospital.”

## A Bumpy Problem

“A bunion is a big toe deformity caused by genetics, footwear or medical factors. The alignment of the big toe is compromised, causing a bump to form on the instep.” Dr Syah explains. “Due to genetics you may have a flatter foot, making you more predisposed to have this condition. A normal foot is built slightly arched and rigid, to act as a lever to push you forward as you walk. A flat foot meanwhile will result in an abnormal stride because you twist your foot slightly inwards with



each step.” This, he says, would gradually cause the big toe to be bent towards the other toes.

“Constricting footwear and high heels may also cause and propagate the problem, and in cases like this it is more apparent in the female population because their shoes have a smaller toe box than male shoes,” Dr Syah says. Bunions could also be the result of the onset of other medical issues. “Diseases such as rheumatoid arthritis, which is inflammatory in nature, will adversely affect the joints and ligaments of the foot. This may cause bunions and a change in the shape of the foot.”

Bunions are usually asymptomatic, but they may become sore and painful because they are pressed against the inside of a shoe. “Prolonged wear on the joint could also result in arthritis, which heralds its own variety of pain,” Dr Syah adds. However, bunions could engender further foot complications if severe enough, as the other toes may experience deformity.

Dr Syah explains, “The foot forms a tripod with points (heel, aft of the big toe and aft of the little toe) when weight is placed on it. If the big toe is deformed by a bunion and loses the ability to become a point of the tripod, the weight gets transferred to the two smaller toes next to it. As they are not designed to take the weight, their ligaments will wear and may snap in the long run and cause the toes to point upwards.”

### Taking the Right Steps

“If the bunion is asymptomatic, the simplest remedy is to leave it alone and not wear constricting

shoes that will heave pressure on the affected area,” Dr Syah says. “It is easier to wear sandals and slippers instead; although footwear that is completely flat is not advisable as it puts pressure on the calf. Therefore I would recommend that they have a bit of heel, about an inch will do.”

Whatever shoes you choose, Dr Syah asserts that it has to be reasonably supportive to take most of the work of walking away from the foot. This is especially helpful in the case of a flexible foot, which has an increased tendency to twist and flex undesirably when stepping or running. “If the shoe yields easily when you hold its heel and toe portions and bend it, it provides little support. Think of it like a comparison between a cap and a helmet – they both cover your head, but one is practically useless in protecting it.”

If there are symptoms such as pain, anti-inflammatory medication can be prescribed. There are other methods to deal with the issue if it is a pressing inconvenience. “We can recommend orthotics that realign the shape of toes, or even corrective surgery for a more permanent fix. This can be done via an open surgery, or for patients who elect to have this procedure done for cosmetic purposes, a minimally invasive one. The surgery is more effective after the ages of 35 to 40, as the risk of a recurrence falls due to declining flexibility of the soft tissue.”

However, if the bunion is the result of other medical conditions such as arthritis and gout, Dr Syah mentions that it is better to realign the joint and fuse it in place so that it does not bend anymore. This is because the contributing disease has likely already jeopardised the joint, or would damage it again post-surgery. ●



### FAST FACTS

**Dr Syah has taken the learning curve of the orthopaedic field, particularly foot and ankle department, in stride and can now take pride in being one of the few persons in the country qualified to treat lower limb medical problems. His extensive orthopaedic experience chalked up primarily in the United Kingdom has allowed him to make light work of anything from broken ankles to bunions. He also contributed to several medical publications and has received numerous awards for his work.**

- 2013 - Present – Consultant Orthopaedic, Foot and Ankle Surgeon at KPJ Seremban Specialist Hospital
- 2013 – Present – Became an Associate Professor of KPJ Healthcare University College
- 2012 – Became a Fellow of the Chelsea Westminster Hospital, London
- 2012 – Became a Fellow of the Sports Surgery Clinic, Dublin
- 2011 – Obtained Orthopaedic German Fellowship (Funded by SICOT)
- 2010 – Obtained Fellowship of the Royal College of Surgeons in Orthopaedic and Trauma (FRCS Tr&Orth)
- 2005 – Obtained Membership of Royal College of Surgeons (MRCS) postgraduate qualification from the UK
- 2001 – Graduated with a medical degree from Royal College of Surgeons, Ireland

# Understanding Inguinal Hernias



**T**hat protruding bulge in the abdomen that appears when lifting heavy loads and disappears when lying down? It may just be an inguinal (pronounced “ingwinal”) hernia, the most common type of hernia, which occur when an internal organ pushes through an opening in the muscles or tissues that hold them in place. Inguinal hernia occurs when fatty or intestinal tissues push through the inguinal canal that is located at the base of the abdomen.

While abdominal muscles are usually strong enough to keep internal organs in place, there is a strong probability of a hernia occurring if there are weak spots. They occur more frequently in men and can occur at any age, although more likely as the stomach muscles weaken owing to age.

Inguinal hernias predominantly appear after putting excessive pressure on the stomach muscles such as when carrying or pushing heavy loads, during persistent, heavy coughs, and when constipated. While they are not necessarily dangerous on their own, they do not improve without treatment—usually surgery.

### Causes and Risk Factors

The ailment can be a result of a number of factors such as weak spots in the abdominal and groin muscles. Other contributing factors include increased pressure in the abdomen, straining during bowel movement or urination, strenuous activity, pregnancy and chronic coughing or sneezing. In some people, the weakening of the abdominal walls is a result of the abdominal lining (peritoneum) not closing properly at birth.

There are also a number of risk factors that increase the occurrence of inguinal hernias. These include lifestyle factors such as being

overweight or obese, standing for long periods of time, weight lifting and chronic coughing from smoking.

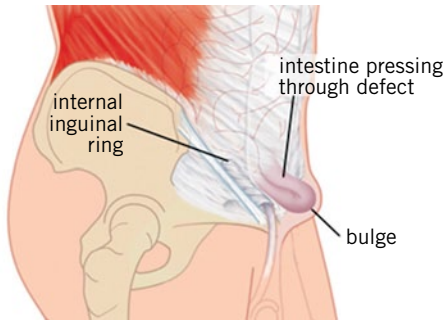
Others include genetics, personal history of hernias, premature birth, pregnancy, abdominal fluid (ascites), cystic fibrosis and frequent constipation. Weaknesses can also occur in the abdominal wall later in life, especially after an injury or abdominal surgery.



The occurrence of inguinal hernias are higher in older people owing to the weakening of abdominal muscles.

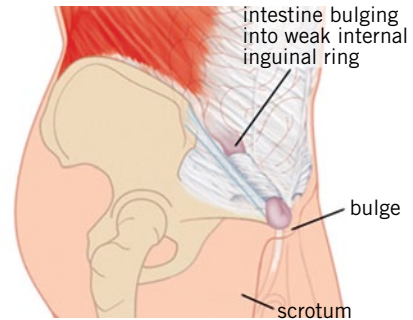
### Direct Inguinal Hernia

Direct inguinal hernias occur when the intestine protrudes through a weakness in the abdominal muscles along the wall of the inguinal canal, while indirect inguinal hernias occur as a result of an internal opening of the inguinal canal (which usually closes at birth), is often diagnosed within the first year of life and affects up to 5% of newborns.



Source: Drugs.com

### Indirect Inguinal Hernia



### Symptoms and Diagnosis

While this type of hernia is recognisable from the bulge or lump in the affected area—usually the lower abdomen, on either side of your pubic bone where your groin and thigh meet—in some cases, they do not have any symptoms. Those suffering from the condition may not know they have it unless it appears during a physical check-up or medical exam.

In cases where there are tell-tale signs, symptoms can include burning sensations, pain or discomfort in the affected area, especially when bending over, lifting heavy loads or exercising, and coughing, in addition to the swelling. In men, this can also include a painful swelling of the scrotum. In babies, parents may only be able to feel the bulge when the infants are crying or coughing.

Diagnosing inguinal hernias usually only require a physical exam to check for a bulge in the groin area. Patients may be asked to stand and cough to make the hernia more prominent and discoverable. If a hernia is still suspected but it does not show, an imaging test—such as an abdominal ultrasound, CT scan or MRI—may be required.

### Treatment and Prevention

In many cases, the hernias can be gently pushed back in although they will continue to reoccur. A surgery is highly recommended in cases where inguinal hernias are incarcerated or strangulated—a life-threatening situation

## >>> AILMENT DURATION

An inguinal hernia will not heal on its own, and grows bigger until it is repaired to prevent bowel obstruction or strangulation, which occurs when the protruding part of the intestine dies off because its blood supply is disconnected.



An abdominal ultrasound is one of the means of checking for inguinal hernias in cases when they cannot be physically detected.



While hereditary hernias cannot be prevented, a healthy lifestyle and avoiding lifting objects that are too heavy can help minimise the occurrence of acquired inguinal hernia.

when internal tissues are trapped in the groin and cannot go back, restricting blood to the small intestine. Patients should seek medical attention immediately if symptoms manifest such as nausea and vomiting, fever, and the hernia bulge turns red, purple, dark and refuses to go back in.

The two main types of surgeries to treat hernias are open surgery and keyhole (laparoscopic) surgery. In the former, a single cut is made to allow the medical professional push the bulge back into the abdomen, while keyhole surgery is less invasive and allows the surgeon to make smaller cuts and use special instruments to repair the hernia. Most patients are allowed

to go home on the same day after the surgery and are fully recovered after a few weeks.

Lifestyle changes are also often recommended to treat and help prevent the occurrence of inguinal hernias, especially those that reduce the amount of pressure placed on the lower part of the body. Recommendations include maintaining a healthy body weight, not smoking, lifting objects with weight on knees rather than the back, avoiding lifting objects that are too heavy, and visiting a doctor when one has a persistent cough to avoid further complications.

While it is difficult to prevent the occurrence of hereditary hernias, practicing a healthy lifestyle can help minimise its occurrence and mitigate life-threatening complications such as incarcerated or strangulated hernia. In addition, recognising the early signs of inguinal hernias is important to its treatment, as it would not go away if left untreated. ●

# Dr Ahmad Sudirman Mohd Salleh on **Inguinal Hernia**



Inguinal hernias are one of the most common types of hernia. It occurs when there is a protrusion of an internal organ – such as the intestine – through a weak spot in the abdominal muscles. Dr Ahmad Sudirman Mohd Salleh, Consultant General and Upper GI (Gastrointestinal) Surgeon at KPJ Kajang Specialist Hospital discusses the management of inguinal hernias.

## **Career**

From an early age, Dr Ahmad Sudirman had always wanted to become a surgeon. His interest in practicing general surgery grew during his housemanship, when he had to undertake a number of disciplines that included general surgery.

“My supervisor at the time noticed my interest and capability in surgery, and promoted me to Medical Officer at the end of my housemanship,” he noted.

One of the most challenging surgical procedures for general surgeons is operating on the oesophagus and stomach. The operation becomes particularly complicated when it involves cancer. A normal oesophagus and stomach procedure can take six to eight hours. Wanting to contribute to society, he took on practicing and studying (in Singapore and Hong Kong) to become a Surgeon.

## **Early Treatment**

While there are different types of hernia, inguinal hernia is the most common. Dr Ahmad Sudirman explained that the ailment is more common in males with an 85% occurrence, and affects 27% of men and 3% of women in their lifetime. Inguinal hernias also occur in

1% to 4% of children, 45% of them within the first year. The physical examination is used in diagnosis of the ailment, as well as ultrasound and CT scans to look for the hernia.

“In cases where it is difficult to physically determine whether the patient has inguinal hernias—owing to the ailment being in its early stages or due to obesity—the medical history of the patient can be used to ascertain whether there is a likelihood of occurrence,” he said. His recommendation for inguinal hernia patients is to undergo surgery at an early stage. “We don’t want them to wait until it gets to the advanced stage, when there may be complications.”

### Patient Options

There are two surgical processes to treat inguinal hernias. “One is the open technique, where medical professionals create a small incision in the groin area, about 3cm or 4cm and be done under general, spinal or even local anaesthesia for the early occurrence. Using this technique, the contents of the bowel are retracted into the abdominal cavity and close the hole. For children in congenital situations, this treatment is usually enough.

For acquired inguinal hernias where the cause is a weakened abdominal wall, repairs are made to the wall to prevent a reoccurrence. A special mesh (made from polypropylene) which the body identifies as a foreign body is inserted to cover the weakened part of the groin and sutured or glued in place. The human body’s natural reaction to the foreign body is the build-up of tissue and collagen fibre layers above the mesh, creating a stronger wall and reducing the chances of

reoccurrence. In the past, medical professionals used tension repair which caused excessive pain after the surgery and had a higher likelihood to recur.

The second technique is called laparoscopic (a minimally invasive technique also known as key hole surgery) where surgeons create two or three keyhole incisions—usually under the belly button. One is to allow the insertion of a camera and the others for the medical professional to operate. Similar to the open surgery, the technique moves the contents of the protrusion back into the abdominal cavity, disconnects the sack linked to the scrotum, and repairs the weakened wall using a mesh. The mesh used in this technique is slightly different and is 3D-printed to make up for the anatomical curves.

Dr Ahmad Sudirman explained that the open technique is cheaper because it requires less use of equipment, and the procedure can be done by many surgeons. Laparoscopic surgery is less painful, requires less use of post-operation pain-killers, and allows faster recovery. However, it is more expensive (up to double the cost of open surgery) as it requires more equipment, and the learning curve is steep for medical professionals.

The recurrence rate after both laparoscopic and open mesh repair are similar and low. Laparoscopic surgeries are more effective in repairing the reoccurrence of inguinal hernias particularly if the initial surgery was done using the open technique. This is because open technique assesses the weakened wall directly, while laparoscopic approaches the abdominal wall from a different



### FAST FACTS

**After gaining his postgraduate degree in General Surgery in 2001, Dr Ahmad Surdiman spent time strengthening his skills, joining the GI subspecialty programme and undergoing upper GI training in Singapore and Hong Kong.**

- 2010-2014 – Vice President, Malaysian Upper GI Surgical Society
- 2007 – Clinical Attachment, Pamela Yonde Nethersole Eastern Hospital, Hong Kong
- 2006 – Clinical Fellow, National University Hospital, Singapore
- 2001-2008 – General Surgeon, Hospital Tuanku, Seremban
- June 2008-Present – Consultant General and Upper GI Surgeon at KPJ Kajang Specialist Hospital
- 2001 – Graduated with a Master of Medicine (General Surgery), National University of Malaysia
- 1994 – Graduated with a Medical Degree, National University of Malaysia

angle. The laparoscopic procedure has advantages for bilateral inguinal hernia as the repair can be performed through the same incision for both sides.

Patients need to avoid physically strenuous activities—such as sports—for 2-3 months after surgery to allow the wall heal and enable the mesh integrate better in reinforcing the abdominal wall. Patients can return to work 2-3 weeks after the surgery. ●

# UNDERSTAN CARDIOMYO





# DILATED CARDIOMYOPATHY

**C**ardiomyopathy refers to the anatomic and pathologic diagnosis associated with muscle or electrical dysfunction of the heart. Cardiomyopathy represents a heterogeneous group of diseases that often lead to progressive heart failure with significant morbidity and mortality. This disease may be primary - genetic, mixed or acquired, or secondary - infiltrative, toxic, inflammatory. Although cardiomyopathy does not show any symptoms at an early stage, the symptoms are usually similar to those seen in any type of heart failure including shortness of breath, fatigue, cough and oedema, among the few.

The most common form of cardiomyopathy, the dilated cardiomyopathy affects 5 in 100,000 adults and 0.57 in 100,000 children, and it is the third leading cause of heart failure in the United States after Coronary Artery Disease (CAD) and Hypertension. Although it is not the leading cause of heart failure, it is still crucial to know what underlies this condition. In this section *Care for Life* will explore some of the causes, the symptoms of this condition and most importantly, the treatments and preventions.



## SOME PATIENTS WHO HAVE CARDIOMYOPATHY

never have any signs or symptoms, hence it is important to identify people who may be at high risk for the disease. Thus, treating that condition at an early stage may help prevent further complications in the future.

### What Causes Cardiomyopathy?

As mentioned above, cardiomyopathy can be acquired or inherited. The term acquired means that, you are not born with the disease, but you develop it due to another disease, condition or factor. Inherited on the other hand, is when your parents passed the genes of the disease on to you. Researchers still continue to look for the genetic links to cardiomyopathy and to explore how these links cause or contribute to the various types of diseases. Often times, the cause of cardiomyopathy is not known. This normally happens in cases with children.

There are a few types of cardiomyopathy, which are hypertrophic cardiomyopathy, dilated cardiomyopathy, and restrictive cardiomyopathy. The causes may differ

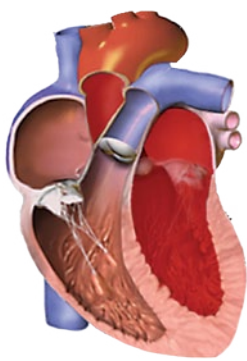
based on the types of cardiomyopathy. The causes of each type are mentioned below:

Hypertrophic cardiomyopathy is usually inherited, and it is caused by a mutation or change in some of the genes in the heart muscles of the proteins. This type of cardiomyopathy can also develop over time because of high blood pressure, aging, or other diseases, such as diabetes or thyroid disease. Sometimes the cause of the disease isn't known.

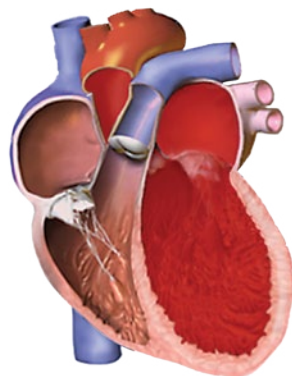
The causes of dilated cardiomyopathy on the other hand is often unknown but about one-third of the people who have dilated cardiomyopathy inherit it from their parents. However, certain disease, conditions and substances also can cause the disease such as alcohol, illegal drugs such as cocaine and amphetamines and some infections especially viral infections that inflame the heart muscles.

Restrictive cardiomyopathy is caused by certain diseases such as amyloidosis (a disease in which abnormal proteins build up in the body's organ, including the heart), connective tissue disorders, some cancer treatments, such as radiation and chemotherapy.

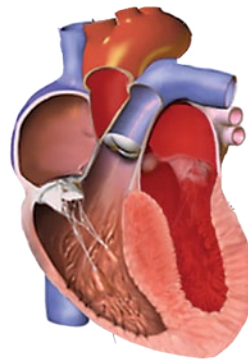
### Structural Categories of Cardiomyopathy



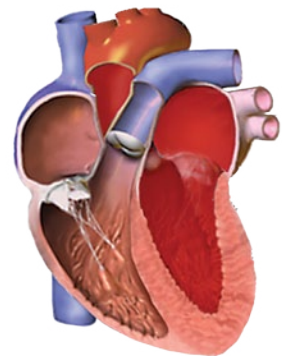
**Normal**



**Dilated**



**Hypertrophic**



**Restrictive**

*Source: wikivand*



People with cardiomyopathy may experience fatigue or tiredness following exercise. As everyone is different, it is best to speak with your doctor about what types of exercise will be best suited for you.

### Risk Factors

All ages and races can have cardiomyopathy, but certain types of the disease are more common in certain groups. For example, the dilated cardiomyopathy is more common in African-Americans than in whites. It is also more commonly seen in men than in women. However, the major risk factors are, family histories of cardiomyopathy heart failure or sudden cardiac arrest (SCA), a disease or condition that can lead to cardiomyopathy such as coronary heart diseases, heart attack or viral infections that inflame the heart, diabetes, long term alcoholism and high blood pressure. Some patients who have cardiomyopathy never have any signs or symptoms, hence it is important to identify people who may be at a higher risk for the disease.

### Signs and Symptoms

Most people do not have or never show any signs or symptoms, but as the condition worsens, the signs and symptoms usually occur, which are, shortness of breath or trouble breathing, especially with physical exertion, fatigue (tiredness), swelling in the ankles, feet, legs, abdomen, and veins in the neck. Among other signs and symptoms may include dizziness; light-headedness; fainting during physical activity; arrhythmias (irregular heartbeats); chest pain, especially after physical exertion or heavy meals; and

heart murmurs (heart murmurs are extra or unusual sounds heard during a heartbeat.)

### Treatment and Prevention

Those who have cardiomyopathy with no signs and symptoms may not need any treatment. Sometimes, the dilated cardiomyopathy that comes on suddenly may even go away on its own. For others, treatment is most likely needed, and it is based on the type of cardiomyopathy, severity of the symptoms and complications, and the overall health.

Treatments may include lifestyle changes such as quitting smoking, losing excess weight, avoiding alcohol, getting enough sleep and rest, reducing stress and treating underlying condition such as diabetes and high blood pressure. Medicine, surgery, implanted devices to correct arrhythmias (irregular heartbeats), and/or nonsurgical procedures are also some of the ways to overcome this.

Though there are existing treatments for this condition, one cannot prevent inherited types of cardiomyopathy, but patients can take precautionary steps to lower the risk for diseases or conditions that may lead or complicate cardiomyopathy.

Cardiomyopathy may arise due to underlying disease or conditions. Thus, treating that condition at an early stage may help prevent further complications. It is advisable to get regular checkups with your doctor, to follow your doctor's advice about lifestyle changes, and to take all of your medicines as your doctor prescribes. KPJ Healthcare encourages early detection if anyone is experiencing any symptoms mentioned above, and should cardiomyopathy be suspected, the medical specialist are ready to counsel patients in helping them take all the necessary steps needed to tackle the disease. ●

# Dr Choo Wai Sun on **Cardiomyopathy**

Heart muscles that have grown in size, thickness or rigidity, or otherwise strayed outside the realms of normalcy, are classic signs of cardiomyopathy. It is a disease that can sometimes strike without warning, with severe consequences. Care For Life takes a seat across **Dr Choo Wai Sun, Consultant Physician and Cardiologist Surgeon at KPJ Seremban Specialist Hospital**, and talks to him to discover more about this disease and what steps can be taken to deal with it.

## Of Pointers and Providence

When the question of career choice surfaced in the life of a young Choo Wai Sun all those years ago, he had a good idea of what field he wanted to explore. “It is not what you might have expected, as



it has nothing to do with medicine,” he says. “I was really interested in becoming an engineer.” It was a path he was sure to continue on, if not for his family members.

“My parents and brother gave me some career advice, and encouraged me to become a doctor,” he reveals. “They sparked my interest in the medical field, and I reconsidered my potential career route after sitting for my A-levels examinations.” Looking back, he believes that a measure of providence was also involved. “I think I was meant to become a doctor, as I have a penchant for helping those in need.”

Today, this cardiology expert is right where he wants to be. “I chose to specialise in cardiology because it is not only challenging, but fulfilling as well. I am on call 24 hours a day, so I have to be ready at a moment’s notice to rush to the hospital and treat emergency cardiac cases. However, I consider it a privilege to help save a person from the clutches of a heart attack,” he discloses.

After a short stint in another private medical institution, he joined KPJ Seremban Specialist Hospital in 2012 and has been there ever since. “I was impressed by the level of equipment dedicated to cardiology that the hospital has,” Dr Choo says, explaining the reason why he decided to be with KPJ. “With these, I am able to carry out my practice unhindered.”

## Debilitating Muscular Anomalies

“‘Cardio’ refers to the heart, ‘myo’ stands for muscle, and ‘pathy’ means disease,” Dr Choo explains. “Therefore, cardiomyopathy effectively means disease of the heart muscle.” Elaborating, he says that the muscles become thickened and rigid and are replaced by scarring. “Over time, this scarring can lead to the dilation of the heart, where its chambers become larger than usual, weakening the organ.” The disease can also affect the electrical conduction that triggers the heartbeat.

Dr Choo advises patients with cardiomyopathy, even if their condition is asymptomatic, to attend regular follow ups with their doctors to prevent complications in the future.

Dr Choo tells us that of the several types of cardiomyopathy, the most prevalent is dilated cardiomyopathy (enlarged heart chambers). This is followed by hypertrophy cardiomyopathy (thickened muscles). Other types include Arrhythmogenic Right Ventricular Dysplasia (ARVD), which specifically affects the right ventricle and a stress-induced variety such as Takotsubo cardiomyopathy.

“We can classify these into two main groups – primary and secondary cardiomyopathy. The former refers to cardiomyopathy that manifests without being triggered by other conditions or systemic problems, and are usually inherited. The latter involves cardiomyopathy that is usually brought upon by the onset of other health issues, such as diabetes and hypertension.”

### Mending the Heart

“During the early onset of the condition, most patients would not experience symptoms. In this period, cardiomyopathy can usually only be detected during an incidental screening,” Dr Choo says. “It will take some time for the appearance of symptoms, including shortness of breath, syncope attacks or fainting episodes and palpitation caused by arrhythmia. Unfortunately, in severe cases the patient experiences certain cardiac death – such as in the case where a young athlete collapses during a game because of a hypertrophy cardiomyopathy that went under the radar.”

Once diagnosed, there are several measures to take into consideration. “An acquired cardiomyopathy patient needs to get the risk factors of their contributing illnesses under control, so that they can have a handle on the condition.”

“If the cardiomyopathy is determined to be of the inherited type, it is highly important that the patient’s family members, especially their younger kin, undergo a screening test to ascertain whether they have a risk of developing the condition themselves,” Dr Choo advises. “The screening test is done using an echocardiogram or an electrocardiogram (ECG).”

Treatments are similar for both groups of cardiomyopathy. “Typical medications prescribed to patients include beta blockers and calcium channel blockers to help regulate the heartbeat and reduce the dilation of the heart chambers,” says Dr Choo.

To reduce the thickness of the affected heart muscles, there are two approaches; invasive and minimally invasive treatments. “Myomectomy is an open heart surgery that involves the surgeon manually shaving off the excess muscle fibres. The other, more subtle method of slimming the muscles is called percutaneous alcohol septal ablation, where alcohol is introduced to specific areas of the muscle to kill the extraneous cells. ●



### FAST FACTS

**In his over two decades in the medical field Dr Choo has accumulated a wealth of experience particularly when it comes to diseases and conditions of the heart, which has granted him expertise in topics such as percutaneous coronary intervention, transthoracic ECHO and Cardiac magnetic resonance imaging. His knowledge of the organ is so vast that he even has a substantial list of cardiac-related publications and presentations bearing his name, and awards under his belt.**

- 2012 - Present – Consultant Physician and Cardiologist Surgeon at KPJ Seremban Specialist Hospital
- 2010 – Fellowship in Cardiac Imaging in National Heart Centre, Singapore and University Birmingham, UK
- 2008 – Fellowship training in cardiology department Hospital Pulau Pinang
- 2006 – Obtained Membership of the Royal Colleges of Physicians (MRCP) postgraduate qualification from the UK
- 2002 – Graduated with a Medical Degree from International Medical University (IMU) with Distinction and John Bosco Gold Medal Award



# PROSTATE CANCER

The most common cancer among men



**P**rostate cancer is the only type of cancer that affects men, which begins to grow in the prostate, a gland in the male reproductive system. After skin cancer, prostate cancer is the most common cancer among men and around 209,292 men are diagnosed with prostate cancer every year in the United States. Although prostate cancer has no early symptoms, it is crucial that men should get regular check-ups to be on the safe side. In this section, *Care for Life* delves into this disease.

### A Snapshot on Prostate Cancer

Prostate cancer starts in the gland cells, and when this happens, it is called adenocarcinoma. Experts say that the cancer begins with tiny alterations in the shape and size of the prostate gland which is known as Prostatic Intraepithelial Neoplasia (PIN). Almost 50% of all 50-year-old men have PIN. The cells are still in place, and do not seem to have moved elsewhere, but the changes can be made visible under a microscope. The cancer cells would have moved into other parts of the prostate. The prostate gland is described as low-grade or high-grade changes where high-grade changes are considered abnormal. Patients who have this high-grade PIN after a biopsy have a much greater risk of having cancer cells in his prostate.

### Types of Prostate Cancer

The medical professionals will find the type of prostate cancer by taking a sample of the cells from the prostate gland during a biopsy. Followed by an examination of the cell by pathologists to determine how the cells look like and this will determine the type of cancer it is.

The most common type of prostate cancer which occurs is called *acinar adenocarcinoma* and this type of cancer occurs almost 90% of the time. There are other types of *adenocarcinoma*, which include atrophic, foamy, colloid and signet ring carcinoma, and all of them are treated in the same way as *acinar adenocarcinoma*.

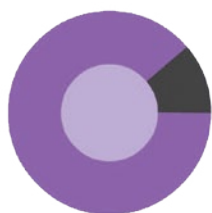
Among the rare types of prostate cancer includes, *ductal adenocarcinoma*, transitional cell cancer, squamous cell cancer, *carcinoid* tumors, small cell cancer and sarcomas and *sarcomatoid* cancers. Let's have a quick glimpse on each of these rare types of prostate cancers:

- *Ductal adenocarcinoma* cancer starts in the cells that line the ducts (tubes) of the prostate gland. It tends to grow and spread more quickly than *acinar adenocarcinoma*.
- Transitional cell of prostate cancer starts in the cells that line the tube carrying urine – the urethra. The urethra passes through the prostate to carry urine from the bladder to the outside of the body. More commonly, this type of cancer may start in the bladder and spread into the prostate.
- Squamous cell prostate cancer starts from the flat cells covering the prostate gland. These are called squamous cells. Squamous cell prostate cancer tends to grow and spread more quickly than *adenocarcinoma* of the prostate.
- *Carcinoid* tumours start from cells of the neuroendocrine system, which is made up of specialised nerve and gland cells. These tumours are very rare and seem to be slowly growing, and may not cause any symptoms for many years and your doctor may recommend monitoring the cancer.
- The cancer cells is a type of neuroendocrine tumour and is made up of small round cells. If you have this type of prostate cancer, you may not have a raised prostate specific antigen (PSA) test. So it is more difficult to pick up early and many men are diagnosed when it is already in the advanced stages.
- *Sarcoma* and *sarcomatoid* cancers start from the muscle cells. They often grow quite quickly. The most common type of prostate sarcoma in adults is *leiomyosarcoma*. It tends to occur in men between the ages of 35 and 60.

### The Risk factors and Causes

Different cancers have different risk factors, and some risk factors like your diet and smoking habits can be changed, while, a person's age, or family history cannot be changed. Having said that, not everyone who has these risk

## What Men Need to Know



About **233,000** new cases of prostate cancer will be diagnosed.

About **29,480** men will die of prostate cancer.



**1** man out of **7** will be diagnosed with prostate cancer during his lifetime.



### Risk Factors

**AGE** - The older a man is, the greater his risk for getting prostate cancer.

**FAMILY** - Certain genes that you inherited may affect your prostate cancer risk. A man with a father, brother or son who has had prostate cancer is two to three times more likely to develop the disease himself.

**RACE** - Prostate cancer occurs more often in African-American than in white men.

## Signs & Symptoms

Different people have different symptoms for prostate cancer. Some men do not have symptoms at all. Some symptoms of prostate cancer are:

- Difficult starting urination
- Weak or interrupted flow of urine
- Frequent urination, especially at night
- Difficult emptying the bladder completely
- Pain or burning during urination
- Blood in the urine or semen
- Pain in the back, hips or pelvis that doesn't go away



Source: [harrishealth.org](http://harrishealth.org)

factors will get the disease, while in some cases, some who do get the cancer may have had few or no known risk factors. There are several factors that might affect a man's risk of getting prostate cancer which are, the age, race/ethnicity, geographical location, family history and gene changes.

Prostate cancer is uncommon among men younger than the ages of 40, but chances of having prostate cancer rises rapidly after the age of 50. This type of cancer is also observed more in the African-American race of the Caribbean, and lesser in the Asian-American and Hispanic/Latino population. Also, having blood relatives with a history of prostate cancer increases the chances of getting it and as a matter of fact, this factor actually doubles a man's risk of developing the disease. Though what was mentioned above were clear risks on prostate cancer, some factors with less

than clear effects on this cancer would include issues of diet, the weight of men, smoking, chemical exposures, inflammation of the prostate, sexually transmitted infection such as gonorrhoea or chlamydia, and vasectomy.

With the risk factors laid out, most medical researchers are trying to learn how these factors cause prostate cells to become cancerous. On a basic level, prostate cancer is caused by changes in the DNA of a normal prostate cell. These changes in the DNA are categorized into two which are inherited gene mutations and acquired gene mutations.

Several inherited mutated genes have been linked to hereditary prostate cancer, including RNASEL (formerly HPC1). Inherited mutations in this gene might let abnormal cells live longer than they should, which can lead to an increased risk of prostate cancer. Next would be the BRCA1 and BRCA2, these mutations of genes result in breast and ovarian cancer in women but changes in these genes (especially BRCA2) also account for a small number of prostate cancers.

Mutated genes of DNA mismatch repair genes (such as MSH2 and MLH1) would have a condition known as lynch syndrome (also known as hereditary non-polyposis colorectal cancer, or HNPCC), and are at increased risk of



colorectal, prostate and some other cancers. Finally, the mutations of HOXB13 have been linked to early-onset prostate cancer (prostate cancer diagnosed at a young age) that runs in some families. Fortunately, this mutation is rare.

Acquired genes on the other hand, are sometimes developed during a man's life rather than being inherited. For example, androgens (male hormones), such as testosterone, promote prostate cell growth and having higher levels of androgens might contribute to prostate cancer risk in some cases. Additionally men with high insulin-like growth factor-1 (IGF-1), are more likely to get prostate cancer. However, other studies have not found such a link. Further research is needed to make sense of these findings.

### **Tell-Tale Signs & Early Detections**

Prostate cancer at early stages does not cause any symptoms at all. However, some of the symptoms may include having to rush to the toilet to pass urine, passing urine more often than usual, particularly at night, difficulty in passing urine, including straining to pass it or stopping and starting, and urinary retention defined as a sense of not being able to completely empty the bladder. Among the rare symptoms that men could experience would be pain when passing urine and blood in the urine or semen.

To avoid further complications, it is advisable to get an early screening, even before the symptoms appear. This would help in the detection of the cancer at the early stages and treatment would be more effective. Screenings are done by testing the amount of PSA in a man's blood. Another way to find prostate cancer is the digital rectal exam in which the doctor puts a gloved, lubricated finger into the rectum to feel the prostate gland.

### **Treatment Option**

Depending on the type and situation, the treatments for men with prostate cancer includes, active surveillance and watchful waiting. Doctors would monitor the cancer closely and treat according to the changes of the symptoms, surgery, radiation, cryotherapy which is the use of very cold temperatures to freeze and kill prostate cancer cells, hormone therapy, chemotherapy, vaccine treatment and bone-directed treatment.

Bone directed treatment is suggested when the prostate cancer has metastasized to the bones. In this case, bisphosphonates helps by slowing down bone cells called osteoclasts. Osteoclasts often become overactive when prostate cancer spreads to the bones, which can cause problems, and bisphosphonates drugs help in relieving pain and high calcium levels caused by cancer that has spread to the bones, to help slow the growth of cancer that has spread and to strengthen bones in men who are getting hormone therapy.

### **Living with Prostate Cancer**

Depending on the type of prostate cancer a patient has, their life may be affected in different ways. Unlike other types of cancer, most prostate cancers get worse slowly, and some men even have the cancer for years without symptoms. However, when the disease progresses, patients will not feel well enough to do all the things they used to which indirectly could impact their relationships.

Prostate cancer is indeed traumatic when the disease progresses into the later stages, henceforth, it is best to get early screenings so that treatments can be done promptly. KPJ healthcare encourages men who have these symptoms or possess the risk factors of prostate cancer to consult with their specialist, who are ready to counsel patients based on their symptoms and to help them take the appropriate steps accordingly. ●

It has been shown that men who are physically active would have a lower risk of developing prostate cancer.





According to Dr Murali, as the five-year survival rate for kidney cancer plummets considerably from Stage I to Stage IV, it is better to undergo screening as early as possible to check if you have the disease.

## Dr Murali Mohan on **Kidney Cancer**

Also referred to as renal cancer, kidney cancer occurs when the cells in the organ become malignant and grow uncontrollably, thus forming a tumour. In most instances, the cancer first makes an appearance in the tubules in the kidney, in which case the kidney is labelled renal cell carcinoma, a subcategory that makes up 9 out of 10 types of kidney cancers. For further information regarding kidney cancer, Care for Life meets **Dr Murali Mohan, Consultant Urologist at Kedah Medical Centre (KMC)** and asks him to spare some of his expert knowledge on the subject.

### **Blossoming Appeal**

“When I was young, my father encouraged me to take up medicine as he wanted at least one of his children to become a doctor,” Dr Murali replies when asked about the reason why medicine was the path he chose. “Although it was my father’s dream, I have no regrets choosing this line now. When I enrolled at the university and started practicing, my interest in the field grew rapidly.”

Dr Murali found surgery to be particularly fascinating and challenging. “It gives you the opportunity to add art

to science, and that inspired me to make a beeline for general surgery.” During his surgical stint, Dr Murali’s immediate superior was involved in urology, which he soon developed an interest for. “With the guidance of my superior, I seized the opportunity to pursue my subspecialty in urology,” he says.

He started his urology training in the late 1990s and became a consultant in 2001. After practicing for a few years he heard about a vacancy at KMC through the grapevine. “My colleagues who were already working here at the time spoke of the impressive qualities of KMC, and KPJ as whole, and persuaded me to join the ranks as they believed I would be a right fit. They were right – I can now say that I’m proud to be part of the team!”

### **Cancerous Development**

Although recent statistics show that the incidence of kidney cancer in Asian countries is less than Western countries, it is still however in the top 20 cancers that is diagnosed in Malaysia. “The male to female ratio is about 2 to 1, indicating a preponderance to men,” Dr

Murali reveals. “It is marginally higher in the Chinese population, followed by the Malay and Indian groups. It is also typically found during the 5th to 7th decade of life, with a mean between 55 to 75 years of age.”

According to Dr Murali, in the majority of cases the cause of kidney cancer is unknown. “However there are risks that increase the chances of getting the cancer including cigarette smoking (which is thought to cause a third of the cases), obesity, hypertension, acquired cystic diseases of the kidney, occupational hazards such as exposure to petroleum products and asbestos, as well as genetics factors.” To help reduce the possibility of being stricken by this cancer, he advises that these risk factors be controlled where possible.

### Elusive Affliction

“There are no definite early signs for kidney cancer,” says Dr Murali. “The classic triad of symptoms – renal mass, loin pain, and haematuria (blood in the urine) – is present in only 10% of the cases, so we cannot solely depend on symptoms. Due to the absence of early warning signs, a third of the patients come to us when the cancer is already in the advanced stage.”

There is a light at the end of the tunnel though. “Thanks to ongoing advancement in imaging modalities, coupled with an increasing health awareness among the public, a lot of patients who undergo basic imaging screening, such as an ultrasound of the abdomen for non-specific abdominal symptoms, occasionally have incidental renal masses picked up during the procedure.”

When a mass has different echotexture than the rest of the kidney, an abnormal

finding in an ultrasound, it is considered a tumour or a cancer until proven otherwise, he notes, adding that it is recommended that the older generation go in for such screenings even when there are no symptoms.

### Determining Treatment

“In order to know what the recommended course of treatment is, we must first stage the cancer,” explains Dr Murali. “This is done via imaging studies, which is a complete CT scan of the abdomen, pelvis and the thorax, and is complemented by relevant blood investigations.”

There are four stages, he further expounds – Stage I, Stage II, Stage III and Stage IV. “These are based upon details such as the size of the tumour, the extent or the spread of the tumour, the involvement of lymph nodes and invasion of the blood vessels. Broadly speaking, you could divide it to early cancer (Stages I and II), intermediate cancer (Stage III) and advanced cancer (Stage IV),” he says.

From stages I to III, the choice of treatment is surgery, he tells us. “For early cancer, radical or partial nephrectomy (also called nephron sparing surgery or NSS) can be performed. NSS in particular is a more popular form of surgery as it conserves kidney function. Intermediate cancer will require radical nephrectomy, while palliative treatment is advised for advanced cancer patients, where pain and spread of the cancer is controlled.”

The latter is done via radiotherapy or medication. “Although kidney cancer has a reputation for being ‘chemo-resistant’, improvement in chemotherapy in recent years involving newer agents called targeted therapy (TKIs) helps to control the cancer better.” ●



### FAST FACTS

**Dr Murali knows his way around most of the body, having performed numerous surgical operations such as gastrectomy, hemicolectomy, thyroidectomy, emergency laparotomies, emergency craniotomy, vesicolithopaxy, ureterorenoscopy, percutaneous nephrolithotripsy, endopyelotomy urethrotomy and a host of urological procedures such as pyelo/nephrolithotomy, dorsal lumbotomy, ureterolithotomy and vascular access surgery for renal failure patients.**

- 2004 – Present – Consultant Urologist at Kedah Medical Centre
- 2000 – Registrar in Urology at Royal Gwent Hospital, UK
- 1993 – SHO Attachment at Royal Infirmary in Edinburgh, Scotland Graduated with a Medical Degree from Universiti Sains Malaysia (USM)

# RUINOUS REFLUX

## What is GERD?

Whether it is labelled as acid reflux, heartburn or gastroesophageal reflux (GERD), all three conditions demonstrate the same burning sensation when contents of the stomach travels back up to the oesophagus. Because of the

physiological changes that exist with ageing, the elderly population are more inclined to suffer from GERD.

Although reflux, heartburn and GERD give the same burning sensation, they are not necessarily similar. GERD happens when there is a regurgitation, (a backflow) of any type of stomach content into the oesophagus while acid reflux denotes when the acids of the stomach are being regurgitated. In other words, all acid reflux is considered GERD, but not all GERD is due to acid reflux.



**G**astroesophageal reflux disease (GERD) is a condition when the acid from the stomach flows back up into the oesophagus (the food pipe), a situation called reflux. Reflux occurs if the muscular actions of the lower oesophagus or other protective mechanisms fail to work.

The stomach acid is a digestive fluid formed in the stomach and is composed of mainly hydrochloric acid.

Although both the young and the old can get GERD, the presentations vary differently. In young adults, the classic symptoms would be heartburn and regurgitation. The older populations suffer a wider range of atypical symptoms such as non - cardiac chest pain, asthma, and vomiting to name a few. Compared to the younger population, elderly patients undergo more severe oesophageal diseases

which include, upper gastrointestinal bleeding due to erosive esophagitis, oesophageal strictures and Barrett's oesophagus.

#### **How do we diagnose it?**

Diagnosing GERD in the geriatric population is a challenge due to the presence of minor and atypical symptoms that manifest into a range of debilitating diseases. Therefore, it is vital to comb thoroughly through a geriatric patient's medical history in order to evaluate extra-oesophageal (outside the oesophagus) symptoms of GERD in the



## PROBLEM SIGNS

The most common symptoms, or the hallmark symptoms of GERD are heartburn and regurgitation. Other symptoms that can be observed are dysphagia and odynophagia.

elderly patients. Despite having symptoms that may be representing other than GERD, the advancements in the health field have made diagnosis for GERD in elderly patients more definite and precise. Some of the various modalities that are available in evaluating GERD are endoscopy, barium studies, ambulatory pH monitoring, and manometry. These tests are mainly done for elderly patients with atypical or recurrent symptoms, refractory or complicated disease, and before anti – reflux surgeries.

Among those stated, the most specific technique to detect esophagitis, ulcers, oesophageal strictures, Barrett's oesophagus and malignancy is by doing upper gastrointestinal endoscopy. This is recommended as it provides histopathological diagnosis and grading of oesophageal lesions. As compared to the younger patients, early endoscopy is warranted for the elderly patients due to the rise of complicated diseases such as Barrett's oesophagus and oesophageal cancer.

### What causes GERD?

GERD arises when the oesophageal tube between the mouth and stomach is being damaged. Commonly, the muscular valve at the bottom of the oesophagus which is called the lower oesophagus sphincter (LES) keeps stomach content inside the stomach. If the LES is functioning properly, when a person swallows, the LES opens, letting food and beverages into the stomach, then the LES closes. This is not the case for people whose LES is weakened or relaxes abnormally, and when this happens, reflux typically occurs. The reflux of the stomach contents, be it acid, food

or enzyme can cause serious injuries to the oesophagus lining, leading to the notorious burning sensation.

The burning sensation is so common that more than 60 million Americans experience it at least once a month. Certain specific causes can give rise to GERD, some of which include lying down within two hours of eating, some medications (such as calcium channel blockers, sedatives, tranquilizers and asthma medications), cigarette smoking, eating large meals, and eating certain food and beverages like tomato sauce, carbonated beverages, alcoholic drinks, and spicy, greasy, fatty foods. Other risk factors associated with the gastrointestinal tract can also cause senior GERD for instance, being overweight, suffering from hiatal hernia, asthma, delayed stomach emptying, diabetes and Zollinger-Ellison syndrome.

### How Do We Look Out For It?

Usually the most common symptoms, or the hallmark symptoms of GERD are heartburn and regurgitation. Other symptoms that may appear are nausea, non-exertion chest pain when lying down or waking up, a bitter taste in the mouth, pain when swallowing and food getting stuck while swallowing. The symptoms that need more attention are dysphagia



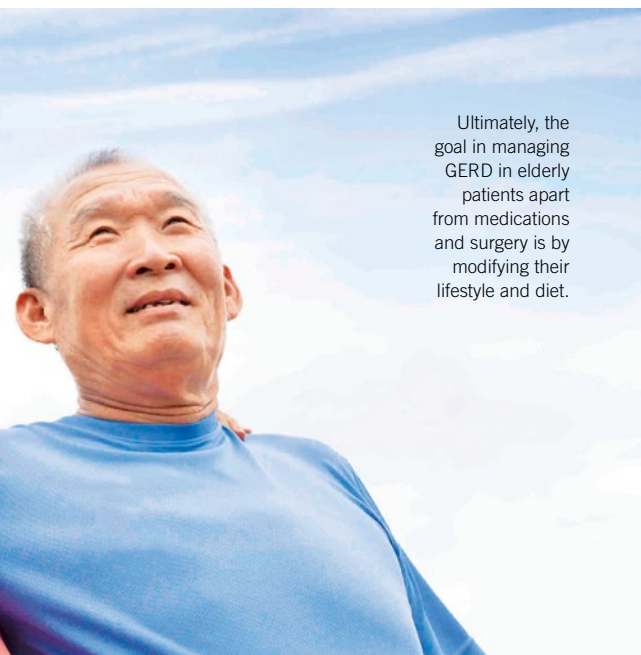
(difficulty in swallowing), anaemia, unexplained weight loss, odynophagia (painful swallowing) and gastrointestinal bleeding. These symptoms may lead to more severe complications like ulcers and cancers.

However, a senior GERD patient may not even have symptoms due to the pain receptors of the oesophagus being insensitive after decades of acid reflux. Dr. Beth Schorr-Lesnicks, FACP, FAGP, a gastroenterologist in Yonkers, New York also said “Due to the duration of the disease, you may have heartburn, or the symptoms would be very mild and in some cases you won’t even have any at all”.

Though elderly sufferers do not exactly experience symptoms related to the gastrointestinal tract, they usually have extra oesophageal symptoms such as laryngitis, sleep apnea, dental problems, chronic cough and asthma.

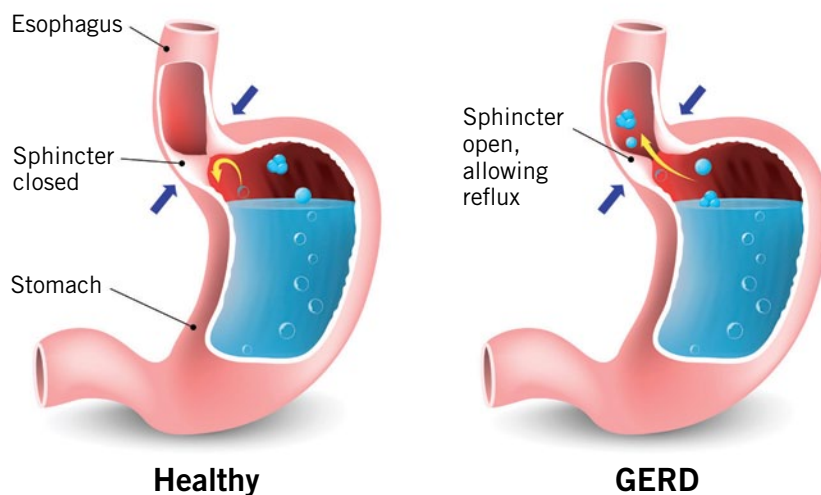
### How Do We Cure It?

Essentially, the treatment for both young and old are the same but a more aggressive approach is needed to treat elderly patients because of the higher incidence of complications for this pool of people. Some of the main goals in treating



Ultimately, the goal in managing GERD in elderly patients apart from medications and surgery is by modifying their lifestyle and diet.

## Gastroesophageal Reflux Disease (GERD)



A comparison between a person with a healthy stomach and someone who suffers from GERD.

Source: spineboy.com

GERD are elimination of the symptoms, healing of oesophagitis, managing or preventing complications and maintaining remissions thus lessening the severity of a disease or symptoms.

Although most cases can be treated successfully with non – invasive methods such as medications and a change in diet and lifestyle, it may be insufficient to subdue the symptoms for the majority, particularly for patients with complications. Medications that can be bought over-the-counter like anti-acids can be taken for mild cases of reflux or GERD. However, it is always important to note that individuals should see their primary care physician if the symptoms do not disappear, occurs more than three times a week or the medications fail to ease the pain.

To alleviate the symptoms for the elderly sufferers, lifestyle changes can be taken. Examples are, avoiding trigger foods as mentioned before, to stop smoking, eating small meals but frequently, do not lie down within two hours of eating, elevate the head of bed with extra pillows or a foam wedge to put under your pillow, chew gum to increase saliva production and try to abstain from wearing tight cloths that compresses the stomach.

Gastroesophageal reflux disease (GERD) is a very common condition among the elderlies. Though they have fewer complaints of heartburn, the disease is more severe than it seems and could have more complications that may be life threatening, but with the correct medications and appropriate managements, GERD can be tamed and treated successfully for the majority of the elderly population. At KPJ Healthcare, gastroenterologists are available for consultations, and is ready to consult and clarify any questions or doubts regarding GERD or any other gastrointestinal complications. ●



Dr Lee believes that lifestyle adjustments – such as cutting down the intake of oily food, reducing excessive abdominal weight and curtailing smoking and drinking – is more effective at dealing with GERD than surgical means.

# Dr Lee Yong Lin on Gastroesophageal Reflux Disease

Heartburn and acid reflux are common terms to describe the uncomfortable backflow of the stomach acid into the oesophagus, an organ that is not equipped to handle a corrosive liquid. However, when it happens on a regular basis, there is potential for other complications to take hold. Such a condition is called Gastroesophageal Reflux Disease, or GERD for short. Care For Life books an appointment with **Dr Lee Yong Lin, Consultant General Surgeon at KPJ Seremban Specialist Hospital**, and speaks to him to learn about this disease.

## An Interest Tapped

“I grew up in a rubber plantation, in which there was a medical dresser by the name of Mr Bernard,” Dr Lee reminisces. “I was amazed by the way he treated the injuries of the rubber tappers, watching in awe as he worked.” It did not remain merely a passing interest, as

Mr Bernard had not only planted the seed of inspiration which Dr Lee nurtured after it sprouted into a fascination with the medical field. “After finishing my secondary school, he approached my father and encouraged him to send me to medical school, even helping me to apply for a university in India.”

So off to India Dr Lee went to study medicine and make his lifelong dream come true. There, he found himself being exposed to the surgical sphere. “There is a large magnitude and variety of surgeries in India due to the large population of the country. Therefore, I absorbed a lot of knowledge in the field in my time there. Armed with this experience, I joined the surgical department upon my return to Malaysia.”

This experience included Endoscopic Retrograde Cholangiopancreatogram (ERCP) and laparoscopic





surgeries. “In the early 2000s there was a demand for doctors with this expertise in Seremban, and I was approached by a private hospital here which convinced me to join them,” he says. “However, the hospital was small at the time and lacked adequate support. Hence when KPJ came up a few years later, sporting a much better capacity to handle these cases, I wasted no time joining them when they asked me to.”

### Undesirable Upflow

“There is a valve here at the cardioesophageal junction called the lower oesophageal sphincter,” explains Dr Lee, his finger just above the stomach on a plastic cutaway of a torso. “It is normally closed, only opening up to allow food to pass through when you swallow. When this checkpoint opens and closes inappropriately, it will allow acid to find its way up the oesophagus instead of staying in the stomach. In some occasions, bile might even be included in the reflux, causing a bitter taste.”

The lining of the stomach is composed of columnar epithelial cells, while the oesophagus is lined with *squamous mucosa*. “These latter cells aren’t made to stand the acid, and will be eroded, causing oesophagitis. The reflux might travel further up and cause irritation in the throat. In rare instances it could cause Barrett’s oesophagus, a condition that if left untreated, could open the door to cancer.”

Dr Lee says that increased intraabdominal pressure, due to pregnancy and obesity for example, is a common cause of GERD.

“Indulgence in smoking and alcohol could lead to a weakening of the sphincter, and oily and spicy foods and even chocolate could result in excessive digestive acid production. Having heavy meals will also increase the level of acid,” he adds, detailing other culprits that may lead to the condition.

### Reducing the Burn

There are relatively simple steps to take to reduce the likelihood of falling victim to GERD. “We tell patients to cut down on the aforementioned triggering foods to avoid the extra secretion of stomach acid, and recommend that they consume smaller meals more frequently instead of having large ones at one sitting. We also urge them not to eat too late, and have their last substantial meal of the day at least three hours prior to their bedtime. If they are hungry just before sleeping, they should just have a drink.”

“They should also cut down on the risk factors, including smoking, drinking, and – if they are obese – they should reduce their weight, and do not wear tight clothing.” At night, patients should prop their head up, and if the symptoms appear, Dr Lee suggests to sit upright in order for quick relief.

“Medication includes H2 blockers, although for better acid suppression, we usually prescribe proton pump inhibitors. If all medicinal options are exhausted and GERD is still a pressing problem, only then surgical intervention should be considered, especially in the case of a hiatus hernia where the stomach ends up in the diaphragm area instead of abdomen,” Dr Lee reveals. ●



### FAST FACTS

**Dr Lee’s subspecialties comprise a multitude of surgeries, including minimally invasive surgery (such as laparoscopic cholecystectomy, laparoscopic appendectomy and therapeutic endoscopy), breast and endocrine surgery, as well as colorectal surgery, making him a highly-sought after consultant surgeon and an authority on subjects such as GERD.**

- 2005 - Present – Consultant General Surgeon at KPJ Seremban Specialist Hospital
- 2002 – Became a life member of the Malaysian Society of Gastroenterology and Hepatology
- 1997 – Became a Fellow of the Royal College of Surgeons, Ireland
- 1996 – Obtained Master’s in General Surgery from University of Mangalore, India
- 1993 – Graduated with a Medical Degree from University of Mangalore, India



# Pillars of Support

## The Passionate Nurses of KPJ Seremban Specialist Hospital

**A** balm through which pain is distanced, a crutch upon which to lean on, a repository of trust, a fountain from which to draw strength, an encyclopaedia by which knowledge is yielded. A nurse is seen in numerous forms by the people they connect with on a daily basis at the hospital. *Care for Life* pays a visit to **KPJ Seremban Specialist Hospital** and gets up close and personal with a genial group from its nursing contingent, delving into their professional lives and acquiring a glimpse of the many roles they play.

**YOGESWARY ARUMUGAM**

*Deputy Chief Nursing Officer*

Yogeswary's nursing career began upon graduating from University Hospital Kuala Lumpur in 1994, a dozen years before she joined KPJ Seremban. In the decade that followed, she worked herself up the ranks, assuming the role of Deputy Chief Nursing Officer today.

"It is a crucial role for the hospital," she says. "Alongside the Chief Nursing Officer, I am involved in the governance of many aspects – from the staff, patients to general management – to ensure everything complies to established healthcare standards."

Despite the monumental burden on her shoulder, Yogeswary still exhibits the trademark nurse softness. "We have to place ourselves in our patients' shoes in order to fully understand what they are going through. We laugh with them, we cry with them – they are like family to us. We listen to their questions and complaints, and try our level best to give them a satisfactory response. Whatever feedback we receive, we will use as the foundation to improve our quality of care."

Apart from possessing all the necessary knowledge, Yogeswary believes that an ideal nurse must be ever-ready to perform her tasks, and must take the initiative to approach the patient first and find out what they need. "We must treat them as our special guests, and not expect them to go out of their way to engage us to receive assistance."



**NORZAIDAH IBRAHIM**

*Unit Manager, Surgical Department*

Norzaidah is a fellow graduate of University Hospital Kuala Lumpur, and is the woman responsible in ensuring that everything in her ward runs like clockwork. "I take care of staffing matters, patients' wellbeing and other ward operations," she says. "If any issues arise, such as patient complaints or consultant comments, the nurses will inform me for further action."

Harking back to her earlier days, Norzaidah recalls what it was like when she first started out as a nurse over 20 years ago. "I learnt how to deal with patients, colleagues and doctors, and then attend trainings and courses to enrich my nursing knowledge." During her extensive experience, she encountered many memorable patients, including an accident victim who came in a grave condition but pulled through in the end. "I still bump into him occasionally, and he is still as thankful as ever every time, and he has even brought his family members to KPJ for treatment."



## CARING WITH A SMILE

No matter how arduous the day may be for the men and women in the nurse's uniform at KPJ Seremban Specialist Hospital, you will find never words of complaint on their lips, just a smile.



**NURHIDAYAH BT MAT SAID**  
*Unit Manager, Maternity Ward*

Her job scope involves managing the maternity ward, nursery and the obstetrics and gynaecology ward. "For the most part, I oversee the handling of patients who come into labour and the care of the babies after delivery. As the hospital is baby-friendly, we only allow the babies to be exclusively breastfed. Therefore we actively educate mothers, even as they are expecting, to familiarise themselves with breastfeeding, in the anticipation of feeding their own child." She finds the maternity ward to be a place of joy and cheer, which is why she is happy to be stationed there for the past 10 years.

"I was inspired to enter the nursing line by my two older sisters, who are both nurses. I noticed that they became rather empathetic and compassionate as a result of their job, and I wanted to be like that." In addition to these qualities, she believes that a great nurse has a balanced blend of technical and soft skills, as they have to deal with the occasional difficult patient. "For instance, in my line I have to face parents who do not adhere to conventional procedures, such as vaccination. We usually have a sit-down with them and hopefully change their minds."

**WAN IBRAHIM WAN RAZALI**  
*Cardiovascular Technologist*

"I help cardiologists carry out procedures in the catheterisation laboratory, or more widely known as cath lab," explains Wan Ibrahim when asked about his job description. "These routines include angiograms, angioplasties and the installing of pacemakers." He is also involved in conducting special diagnostics, such as stress tests, Holter monitoring and echocardiogram. He notes that it is challenging sometimes, as he deals with patients who are seriously ill. However, he has learned to be calm under pressure, particularly after an incident with a patient who was utterly composed despite having a cardiac arrest. "The patient survived, and he has remained a source of inspiration for me ever since."

On his entrance into nursing line, he lets slip a confession. "I was not interested at all in becoming a nurse, to be honest," he says sheepishly. "When it came down to the course application choices to enter into the university, my parents told me to put nursing as one. They let me select the other six choices, though!" In the end, the nursing application was the only one that was successful, and over the years, he warmed up to the profession considerably. "It is a satisfying line to be in, especially when you see the difference you can make in the lives of patients."





**SITI NORFAZIRA BT SALEH**  
*Infection Control Officer*

“As my job title implies, I help to control healthcare associated with infections in our organisation,” Siti Norfazira details. “It builds on my 13-year experience in the nursing field; first as a nurse and then as a nurse instructor.” Nonetheless, being an Infection Control Officer certainly stretches the boundaries of her knowledge, as she needs to cater for various categories. “I have to ensure that my peers, doctors, customers – essentially everyone in the hospital – practice safe policies and procedures designed to curb the spread of infections.”

Nursing was not her first career choice, she reveals. “I actually wanted to be a teacher, but my parents were inclined for me to become a nurse instead. I gave it a long thought and reckoned that I should afford myself the challenge of taking the route I did not choose,” she says. It was indeed challenging, as she had to work hard to get through her first year in KPJ Healthcare University College. She managed to graduate comfortably, and in the years that followed, grew to enjoy nursing. “In an amusing twist, I did actually manage to fulfil my teaching dream, as I was a nursing instructor for a while!” she quips.

**BAVANI NAGARAJAH**  
*Senior Staff Nurse, Medical Surgical Ward*

She is the second in line under the Unit Manager at the Medical Surgical Ward. “In addition to my regular duties as a nurse, I assist the Unit Manager in the daily operation of the ward, and see to the training and orientation of junior and student nurses who join us,” Bavani says. This is mainly done to ensure that they conform to ward’s procedures.

“I chose to be a nurse after my father passed away when I was 17,” explains Bavani. “I felt like I wanted to help people to be more aware of their health so that they can take care of themselves better.” This involves teaching them the importance of taking their medication according to the prescription, and educating them on the risks of certain lifestyle habits. Even then, the odd patient she handles can be a handful, as they insist on doing things their way. “In cases like these I will advise them on the detrimental effects they are causing themselves, and try to cajole them to listen so that they get the proper treatment. It usually works,” she says with a smile.



Despite the many different shapes and forms they take in the eyes of those around them, one thing is for certain; the nurses in a KPJ Hospital will not allow themselves to rest until patients, visitors, doctors and colleagues have their questions and quandaries laid to rest. It is a mark of a true caregiver whose indispensable support is the reason the hospital remains standing. ●



A nurse checks Alaita's blood pressure as part of the post operation procedure for her thyroid condition.

# EN ROUTE TO RECOVERY

**H**aving gone through a thyroid surgery did not stop Alaita Taulima from Tuvalu from being an energetic, vibrant lady who smiles from ear to ear and speaks so enthusiastically about the services that **KPJ Ampang Puteri Specialist Hospital** has given her. She said apart from the amazing hospitality that she has been getting throughout her treatment, one thing that she cannot get enough of is the smile from the doctors, staff and nurses that makes her day even better.



>>> “The Tuvalu Referral scheme refers patients to India, Fiji and also other parts of the world, but for my condition, they transferred me here to Malaysia, and I am very fortunate to get specialised treatment in this country.”

– Alaita Taulima

### Not So Small After All

In the year 1998, Alaita started to notice a small lump in her neck. Because it was small, she ignored the lump and went on her daily life. However, the lump grew bigger and a few years back, the lump started to block her airway and she had symptoms like shortness of breath. Frightened by it, she knew that she had to seek medical attention before her symptoms get any worse and even jeopardise her life. She did consult doctors from her home ground, but after looking at the severity of her condition, the doctors in Tuvalu urged Alaita to seek medical assistance elsewhere, even though they recommended surgery to treat her condition, they suggested that she should seek medical assistance from a more advanced country.

### Better Recommendation

Initially, Alaita sought medical attention in her home ground. However, with the lack of medical facilities that they have, the medical professionals there referred her to Malaysia, using the medical referral scheme that the government has. She mentions that, the doctors said it is the only way to manage her condition based on her severity. When asked had she heard about KPJ Healthcare, she said “Honestly I don’t know what is

KPJ, but I do know a country named Malaysia”. While in Tuvalu, she did not have a clear picture where she was being referred to for her condition, but all she knew was that she was coming to Malaysia to seek further medical assistance and specialized treatment.

### Out of this World

“It is one of a kind”- that was what Alaita uttered when asked about her hospital experience with KPJ Ampang Puteri Specialist Hospital. She expressed her utmost gratitude by saying that she got the best medical treatment here. She felt the warmth from her doctor, her anaesthetist, nurses and the staffs. She was amazed with the welcoming hospitality that she received, and still continue to receive until to this date. One thing she loved talking about was how everyone she meets, be it the staff or nurses, they always have a smile on their face, and she thinks that particular gesture is one of the best medicines ever. She went on saying that language was not a barrier for her, though Malaysians and Tuvaluans have a different culture and traditions, she understands that and she enjoys mingling with the medical professionals and staff.

### A Satisfying Stay

Alaita said she was very satisfied with her stay here, and that she was very well informed with all the medical treatments that was given to her, everything including pre-op to post-op care, the complications that may arise and medications. She again expressed how fortunate she is and how lucky she is to be here, and getting the best treatment from the hospital. She thanked everyone from the management to KPJ for treating her condition, she will be eternally grateful for it. As for her favourite experiences she told, besides getting all smiles from the KPJ staffs, she now likes Malaysian food! “I truly enjoy the food here”, she said with such joy. She ended with the interview by saying, “being in a different country without your loved ones around is difficult, but I don’t feel like I’m away from home. I have my father here and I have all the KPJ staff with me, that makes me feel like I’m home, and not in a foreign country”. She prays and bless them to continue to work with love for the benefits of the patients and whoever that comes into the consultation room. When she first entered the consultation room of Dr Suib Ismail, Consultant General and Vascular Surgeon, she didn’t felt like she was a foreigner, “he treated me like a citizen. He makes me feel at home until this very day”. ●



One of the many highly trained physiotherapists involved in the treatment of Tafaota's condition.

# A REPRIEVE FROM JOINT PAIN

**T**afaota Tuau Lapua is a man of few words, but there is no doubt that this bashful 20 year old is getting better with the treatment that he has been getting for his chronic joint pains that he has been experiencing for the past years. When his condition worsened, he was referred to Malaysia through the Tuvalu Referral medical scheme and was brought to **KPJ Ampang Puteri Specialist Hospital**. He tells *Care for Life* how the KPJ team helped him alleviate his painful predicament.





“The smiles, the kindness and the warm hospitality are what makes this hospital unique, and makes me feel like I’m in my own country”

– Tafaoata Tuau Lapua

### Symptom Check

He first noticed his symptoms last year, in the month of January. He realised while walking, he could not move his lower limbs sufficiently and he had a range of joint swelling and tenderness. Thinking it was just something common, he left it aside. After some time, he then experienced stiffness around his knees and he started limping because of the act of flexing and extending his knees and the rest of his lower limb caused him insufferable pain.

The pain he mentioned started on the left knee, then progressed to the right knee. After finding the simple act of walking became a struggle for him, he knew that it was time to seek medical attention. Tafaoata hurried to the nearest hospital in his region of Tuvalu. After a series of examinations done by the doctors there, they concluded that he needed to be transferred elsewhere because they did not have sufficient resources to treat his ailment. He was then referred to Fiji.

### Total Trust

When he was in Fiji, the doctors did investigate and analyse his problem, but they did not treat his conundrum and the medical professionals there finally decided that he needed further medical assistance in a more well developed country, and hence the government of Tuvalu recognised his problem and flew him and his cousin Tolotua Fatiga to Malaysia. Tafaoata did not have a clue on what was in store for him. He did not have

a clue about Malaysia or which hospital he was being transferred to. In other words, he believed that both parties, the government of Tuvalu and also Malaysia would be able to provide the best medical care for his malady.

### A home away from home

Tafaoata didn’t need any surgery for his eradication of his symptoms. However, he needs to attend a series of physiotherapy sessions daily to ease his pain. Although no surgery was needed, he was well informed with the treatments that he is receiving and is very pleased with it, “I am more than happy with how they are treating my joint pain”, said Tafaoata. He also spoke about how he feels right at home and that everything about KPJ Ampang Puteri Specialist Hospital is excellent, from the doctors, nurses to the warm and fuzzy hospitality he received.

Though he cannot speak fluent English, that didn’t come between the nurses and the physiotherapist of the hospital. He mentions that he could understand them regardless. All in all, he loved his stay here in Malaysia especially in this hospital. When asked about his favourite experience, his face lit up and said “The smiles”. Indeed he loves seeing KPJ staff smile every time they greet him, during performing his physical treatments for his limbs and whenever he walks the hallways of the hospital. “The smiles, the kindness and the warm hospitality are what makes this hospital unique, and makes me feel like I’m in my own country”, he said with a beaming smile. ●

# Scything Pain

The Sting of Sciatica

**S**ciatica is not a term you hear very often. In fact, some people may not have even heard about it before and this article could be your very first encounter with the word.

A couple of minutes on a popular online search engine are enough to paint a picture of how low the coverage is about this condition compared to other medical maladies – ‘sciatica’ returns about 8 million hits, ‘heart attack’ about 80 million, and ‘diabetes’ close to 300 million. So what is sciatica? Read on to find out.

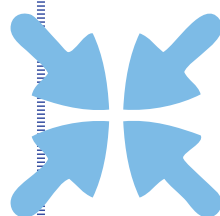
To understand sciatica – otherwise known by its medical label, lumbar radiculopathy – you must first know that it is in reference to the sciatic nerve, which is the longest nerve found in the human body and comprises individual nerve roots. It spans the length from the back of the pelvis to the feet, charting a course through the buttocks and down each leg.

Sciatica is the word used to describe the pain that is felt along the stretch of this nerve. The pain usually afflicts the left or right side of the lower body, and may include a tingling sensation or a mild to severe pain. In some cases, patients describe a numbness or weakness in the area covered by the sciatic nerve.

#### Common Causes

In most cases, the cause of sciatica can be traced to a spinal disorder in the lower back, namely a slipped or herniated disc. The spinal segments typically involved are the L4 and L5 discs, as well as the lumbrosacral joint between L5 and S1, which is the sacrum.

This misalignment of segments will put pressure on or irritate the nerve roots. It is not necessarily obvious what precipitates the damage but the general consensus is the discs lose their flexibility with age and are more prone to rupturing.



### Reducing Risk of Sciatica

- Adopting a better posture and lifting techniques at work
- Stretching before and after exercise
- Exercising regularly
- Sleeping on a firm and supportive mattress

*Source: NHS Choices*

## Recommended Sciatica Exercises

**Hamstring stretching.** Regardless of the diagnosis, most types of sciatica will benefit from a regular routine of hamstring stretching. The hamstrings are muscles located in the back of the thigh. Overly tight hamstrings increase the stress on the low back and often aggravate or even cause some of the conditions that result in sciatica.

**Exercise correctly.** As an adjunct to the above point, doing the right exercises but doing them without proper form can make the exercises relatively ineffective, and possibly may lead to continued or increased pain. It is generally advisable to learn the exercises under the guidance of an appropriately trained health practitioner such as a physical therapist, chiropractor or physiotherapist.

**Aerobic exercises.** In addition to specific sciatica exercises, aerobic conditioning may also be encouraged for general body fitness. Walking is an excellent form of exercise for the low back because it is relatively low impact but can provide all the benefits of an aerobic workout. If possible, it is best to gradually progress to doing up to three miles of walking.

*Source: Spine-health*

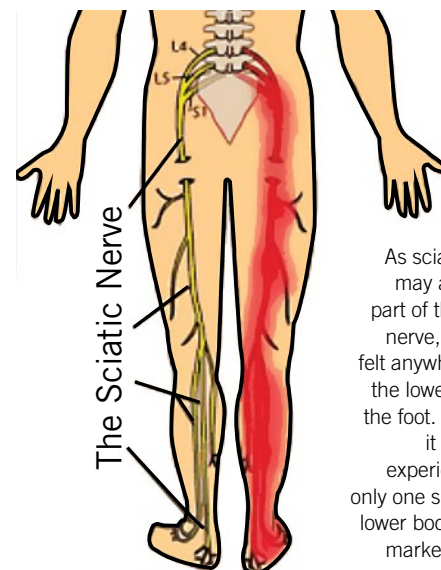


In rarer instances sciatica may result when a disc undergoes degeneration. This process releases inflammatory proteins that have been found to cause irritation in the nerves. There are also other causes of sciatica, including spinal stenosis (narrowing of the nerve passages), spondylolisthesis (a vertebra slipping out of position) and rarely, cauda equina syndrome (compressed and damaged nerves). Some cases can be attributed to a spinal injury or infection, or a growth such as tumour in the spine.

### Signs and Symptoms

As briefly mentioned earlier, sciatica more commonly presents itself as pain on one side of the body, radiating from the lower back to one side of the buttock and down the back of the thigh, calf and foot. Depending on the cause, the pain may be felt in a combination of any of these body parts through which the sciatic nerve runs, although it is usually most intensely felt in the leg.

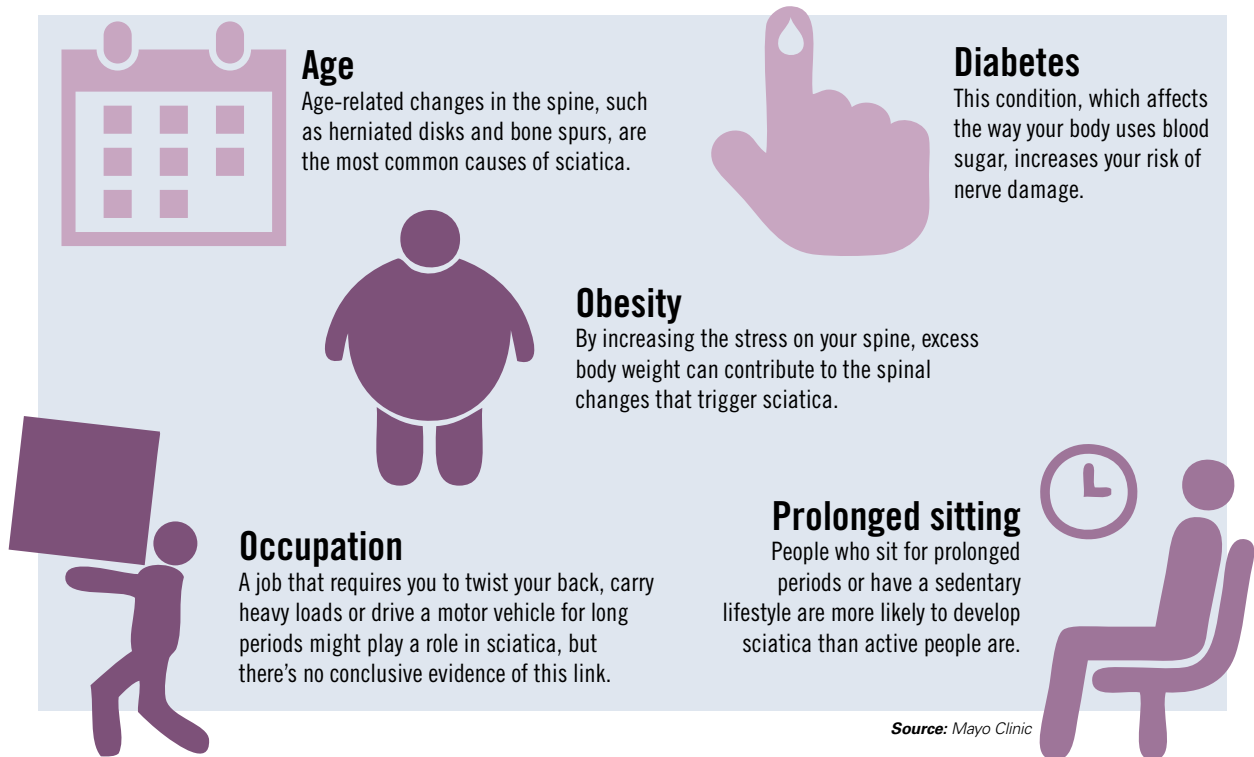
## Sciatica Pain Pathway



As sciatica pain may afflict any part of the sciatic nerve, it can be felt anywhere from the lower back to the foot. However, it is usually experienced on only one side of the lower body (region marked in red).

*Source: ChiroGeek*

## Risk Factors for Sciatica



The pain is said to be searing or sharp in nature, as opposed to a dull ache. It may ebb away when the patient is lying down or walking, and return when they are standing or sitting. In some cases patients have described shooting pain in one leg, hindering them from even standing up or walking. In other instances, patients may report numbness or weakness in their leg, accompanied by a prickling or pins-and-needles sensation.

These symptoms may be more strongly experienced when the patient makes sudden movements, such as shifting positions abruptly or standing up suddenly. Sometimes, even involuntary actions – coughing and sneezing for example – could also intensify the pain.

### Road to Relief

Sciatica may last a few weeks, or may linger for more than a year. There are several measures that would provide relief for the

pain, and most of it can even be done at home. Taking over-the-counter painkillers including nonsteroidal anti-inflammatory drugs (such as ibuprofen or naproxen), or oral steroids and applying cold or hot packs (alternately if needed).

To manage the pain, it is recommended that the patient be active rather than remaining sedentary and performing specific exercises is shown to help reduce the pain. For these chronic cases, doctors may also condone physiotherapy, chiropractic therapy and even cognitive behaviour therapy to help patients deal with the pain more effectively.

For more severe pain, epidural steroid injections administered directly to the offending area may be called for. Recurring cases may require surgical attention to correct the problem in the spinal segment, including removing part of the disc, widening the spinal canal, or fusing two vertebrae together to prevent movement.

If you suspect you may have sciatica, or if you are aware that you do and the symptoms are not improving despite treatment, or if the symptoms are accompanied by other seemingly unrelated ones such as loss of bladder and bowel control, seek medical advice immediately. The capable doctors at KPJ Hospitals are more than happy to attend to your concerns and queries, and will waste no time furnishing you with an accurate diagnosis as well as prescribe the best treatments available for you. ●

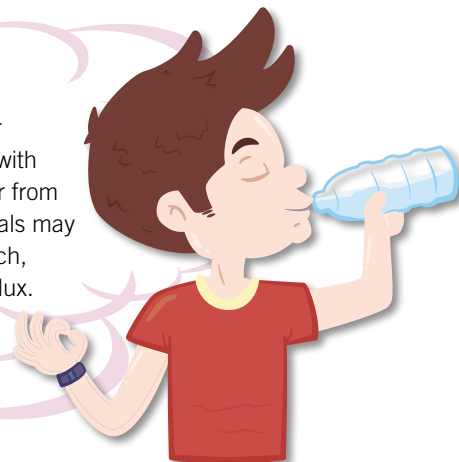
# Gas Relief

## Ways to Tame Excessive Gas

There are a lot of ways to describe excessive gas: burping, belching, flatulence, and bloating. For example, burping and belching usually refer to gas that escapes from the mouth, while flatulence, or farting, is intestinal gas that escapes from the rectum. At times, excessive gas can become uncomfortable or even painful. However, some simple changes to your diet and lifestyle can help provide gas relief and also aid digestion. In this issue, *Care for Life* highlights simple, every day tips that you can easily follow to minimize gas.

### Drinking hazards

Try drinking about 30 minutes before a meal to help your stomach digest better. For most people, drinking liquids with meals is unlikely to affect digestion, however, if you suffer from gastroesophageal reflux disease (GERD), liquids with meals may not be for you, because liquids add volume to the stomach, which can increase stomach pressure leading to acid reflux.



## Take your time when eating

Eat and drink slowly. When you eat or drink fast, you can swallow a lot of air, which can cause gas.

The simple solution? Slow down when you eat. If you have dentures, check with your dentist to be sure they fit properly so you're not gasping air while eating.



## Try to avoid certain foods

Excessive gas can also be caused by the food that we eat. Try to stay away from certain type of foods such as beans, cruciferous vegetables like cauliflower and processed carbohydrates such as cupcakes, dairy products and onions.



## Try activated charcoal



Activated charcoal has been known to reduce and treat excess gas and bloating. Unlike the usual charcoal commonly used for grilling, this activated charcoal undergoes a special treatment that makes it safe for human consumption. Once you take activated charcoal (via liquid or pill), it attaches to fluid in your gut, reducing gas and bloating and creating firmer stools.

## Don't fill up on air

Habits like smoking, chewing gum, and drinking through a straw may cause your stomach to fill with air, leading to gas



## Add spices to your diet

Next time when you're cooking, try adding cinnamon or/and fennel to your diet. Cinnamon can help metabolize fats in the digestive process. Also, some cultures eat fennel seeds after eating a large meal to reduce inflammation of one's stomach and intestines, and to ensure proper absorption of nutrients.



***If your excessive gas is persistent or severe, consult your doctor – it could be a sign of a more serious digestive condition. Do not hesitate to visit KPJ Healthcare hospitals for a thorough examination and comprehensive consultation.***

# HOME REMEDIES

**M**ore often than not, we tend to neglect our health when we are preoccupied with work, deadlines and so forth. While we are so engrossed with our personal responsibilities, we tend to pay less attention to our health and well-being. Although without a doubt, the professional advice and visits to the doctor should be necessary when it is being called for, but, one can also alleviate common health conditions with simple, quick home remedies. *Care for Life* shows you how.

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## HIVES



**S**urprisingly, hives also known as *urticaria* affects about 20 percent of the human population. Hives can occur at any point in one's life and it can be triggered by many situations and substances and often starts as an itchy patch of the skin that turns into swollen red welts. The itching may be mild to severe. Scratching, alcoholic beverages,

exercise and emotional stress may worsen the itching. Hives however, can be sometimes mistaken with Angioedema-swelling of tissues beneath the surface of the skin. Angioedema affects deep in the layers of the skin, and often around the eyes and lips. Regardless, both conditions are harmless and do not leave any permanent scars.



## Info

Most hives will disappear within 24 hours. However, chronic hives can last for months or even years.

## Causes

- *Some food (especially peanuts, eggs, nuts and shellfish)*
- *Medications, such as antibiotics (especially penicillin and sulfa), aspirin and ibuprofen*
- *Insect stings or bites*
- *Physical stimuli such as pressure, cold, heat, exercise or exposure to the sun*
- *Latex*
- *Blood transfusions*
- *Bacterial infections, including urinary tract infections and strep throat*
- *Viral infections, including the common cold, infectious mononucleosis and hepatitis*
- *Pet dander*
- *Pollen*
- *Some plants, such as poison oak and poison ivy*



Besides being triggered by cold, which is quite uncommon, hives that are caused by other than the common cold is easily treatable. A cold bath or a cold compress will shrink the blood vessels and blocks the further release of histamine (produced as a part of a local immune response that causes inflammation).

Baking soda and vinegar can come in handy to treat the irritation and the itch caused by hives. In a small cup, add a few drops of water to baking



## Treatment



soda and stir until you get a paste. Spread this paste on the affected area. Similarly, mix 1 teaspoon of any kind of vinegar with 1 tablespoon of lukewarm water and apply the mixture onto your hives with a cotton ball or tissue. Both of these remedies help to soothe, and relieve the irritation and the itching.

## >>> Symptoms

The welts that are associated with hives appears to be:

- *Red or flesh-colored*
- *Roughly oval or shaped like a worm*
- *Intensely itchy*
- *A few millimeters to several inches across*

# DANDRUFF

Dandruff is as common as the common cold. It is a condition whereby excess skin flakes appear on the scalp. Although our body does naturally shed skin cells regularly, these would be too small and not seen easily. Dandruff on the other hand causes the shedding of large visible clumps and is often accompanied by itching. This condition is not contagious, but can cause some embarrassing moments at times. Fortunately, mild cases of dandruff usually can be controlled.



## Causes

- **Irritated and oily skin**

*This is one of the most frequent causes of dandruff, which is marked by red, greasy skin covered with flaky white or yellow scales.*

- **Not shampooing**

*Not washing your hair regularly might cause buildup of oil and skin cells from your scalp, causing dandruff.*

- **A yeast-like fungus (Malassezia)**

*Malassezia usually lives in the scalp of most adults. However, for some, it can cause irritation*

*and can result in more skin cells to grow.*

*This extra skin dies and fall off, which is what you normally see on your hair and clothes.*

- **Dry skin**

*Unlike other causes of dandruff, flakes from dry skin are usually smaller and less oily, and redness or inflammation is unlikely.*

- **Sensitivity to hair care products**

*In some cases, certain ingredients in hair care products or hair dyes can cause red, itchy and scaly scalp.*



## >>> Symptoms

For most people, the symptoms of dandruff are easy to detect, and those are: white, oily looking flakes of dead skin that dot your hair and shoulders, with possibly itchy, scaly scalp.

## Info

Babies also can be affected by dandruff which is called *cradle cap*. The new born would have scaly, crusty scalp, which is most common among them, and can occur anytime during infancy, and usually clears up on its own.

## Treatment

### 1. Tea Tree Oil

A study done by the Royal Prince Alfred Hospital, postulated that shampoos with just 5 percent of tea tree oil could significantly improve the severity of dandruff. If you cannot find shampoos that have tea tree oil in them, you can also add a few drops of tea tree oil to your favourite shampoo as you wash normally.



### 2. Baking Soda

Baking soda can decrease overactive fungi that causes dandruff. After wetting your hair, take a handful of baking soda, and rub vigorously onto your scalp, and rinse without shampooing. This method may dry your hair first, but after few weeks, the scalp will be producing natural oils, leaving hair softer and free of flakes.



### 3. Apple Cider Vinegar (ACV)

The acidity of the vinegar changes the pH of the scalp stunting the growth of yeasts. Mix equal parts of ACV and water in a spray bottle and spritz this on your scalp. Wrap your head with a towel and let it sit for 15 minutes before rinsing. Do this twice a week.



### 4. Coconut Oil

This remedy is a "tried and true" dandruff treatment. Massage 3-6 tablespoons of coconut oil before showering and let it sit for an hour, and later rinse thoroughly. Alternately, you can always use shampoos which has coconut oil in it.





# YEAST INFECTION

**A small number of yeast – type of fungus normally lives in the vagina. This is totally normal, however, if too many yeast cells are growing in the vagina, this might cause a vaginal yeast infection. Vaginal yeast infection is very common among ladies and treatment is simple. Though it can bother you, but it is usually nothing too serious.**

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## Causes

Commonly, most yeast infections are the result of a certain type of yeast called *Candida albicans*. A normal healthy vagina has many bacteria together with a small amount of yeast cells, and the most common bacteria which is called, *Lactobacillus acidophilus* maintains and keeps other organisms like the yeast under control. However, when there is a disruption or a change in the balance of these organism, the yeast will multiple and grow too much. Some of the reasons why this may happen is when someone is:

- taking antibiotics
- having high oestrogen levels caused by pregnancy
- under hormone therapies
- having diabetes or HIV infection.





## Symptoms

- *Itching or soreness in the vagina*
- *Sometimes causes pain or burning when urinating or having sex*
- *Some women may also have thick, clumpy, white discharge that does not have any odour, and looks similar to cottage cheese*

## Treatment

While as mentioned above that treatment is simple, it is important to note that women who are pregnant, unsure what are the cause of the symptoms, have been exposed to a sexually transmitted infection (STI), and have had recurrent infection to NOT self-treat this yourself and seek advice from your doctor. It is also crucial to speak to your doctor before you try any unproven home treatments such as applying tea tree oil in the vagina or taking garlic supplements.

Aside from that, one can treat vaginal yeast infection by taking some over-the-counter medications, such as clotrimazole, miconazole, and terconazole. Topical antibiotics (applied directly to the affected area) are also available without prescription.

Ultimately, ways to prevent and to help reduce the chances of getting a yeast infection is to take these precautionary steps:

- reduce moisture in the genital area
- wearing cotton underwear
- wearing loose-fitting pants
- avoiding prolonged wearing of wet workout gear or bathing suits.



## Info

Symptoms are more likely to appear during the week before your menstrual period.

# Blood: The Elixir of Life

Blood also known as erythrocytes, is the red fluid that circulates in our blood vessels. The main function of blood is to act as the body's transport system, but it also has a major role in the body's defence against infections. Let's start with the basics, and then later, we can look at some fun and interesting facts about one of the most vital components in the human body. The blood makes up around 7% of the weight of the human body. This red liquid that oozes out from our skin from a simple paper cut contains red blood cells, white blood cells and platelets. These blood cells float in a yellow liquid called blood plasma. Blood plasma is made up of 90% water and also contains various nutrients, electrolytes, gases, proteins, glucose, hormones and 90% water, so drink up people!

Now, the job of these minute teeny tiny red blood cells is to carry oxygen around the body. They also contain a protein called haemoglobin. Haemoglobin contains iron which combines with oxygen to give haemoglobin and our blood,

the red colour. Apart from that, the white blood cells are an essential part of the body's immune system. These little white armies defend against certain bacteria, viruses, cancer cells, infectious diseases and other unwanted materials. Assisting these armies are Platelets, which help in blood clotting in order to limit bleeding when your skin is cut or wounded. As mentioned above, let's look at some fascinating facts of blood:

- Pregnant women have about 50% more blood by week 20 of pregnancy than they did before they conceived.
- Red blood cell can make a complete circuit of your body in 30 seconds (Still can't beat Usain Bolt)
- A new born baby has about one cup of blood in his body.
- One pint of donated blood can save up to 3 lives
- Your heart will pump nearly 1.5 million barrels of blood during your lifetime, enough to fill 200 train tank cars.

**So you think you know your blood? Well, put it to the test!**



1. Which of the following statements is true concerning human blood?

- A) The blood of all normal humans contains red and white cells, platelets, and plasma
- B) Some human populations normally lack the ability to produce plasma
- C) Proteins are not normal components of human blood
- D) There are 3 types of blood groups

3. Which of the following blood components provide the major defense for our bodies against invading bacteria and viruses?

- A) Red cells
- B) White cells
- C) Platelets
- D) Haemoglobin



2. Erythrocyte is another name for a:

- A) Red cell
- B) White cell
- C) Platelet
- D) Plasma

4. The relatively clear liquid medium which carries the other cells of blood is called:

- A) Lipid
- B) Antibody
- C) Plasma
- D) Platelets

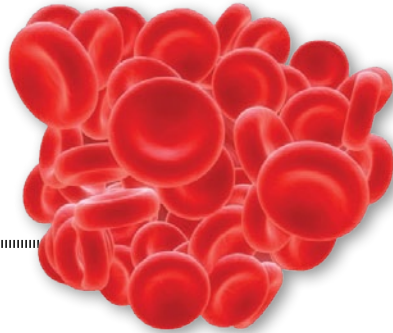


5. Which of the following are likely to increase in quantities when the body is under attack from bacteria?

- A) Erythrocytes
- B) Leukocytes
- C) Thrombocytes
- D) Lymphocytes

**6. When blood clumps or forms visible islands in the still liquid plasma, it is called:**

- A) Clotting
- B) Agglutination
- C) Clumping
- D) None of the above



**7. Antigens are:**

- A) Found on the surface of red cells
- B) Kinds of red cells that identify a blood type
- C) Relatively large carbohydrate molecules
- D) The components that gives blood the colour red



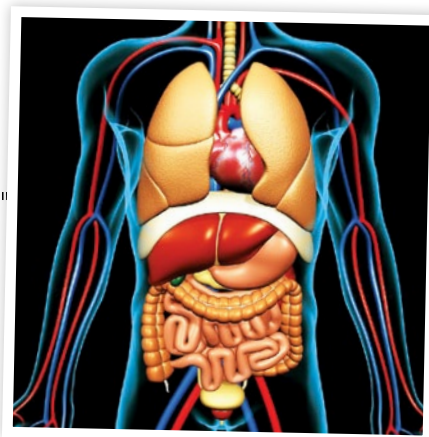
**8. Which of the following statements is true of antigen-antibody interactions?**

- A) They are used by our bodies only to identify blood types
- B) They are used to identify and reject microorganisms, such as viruses and bacteria, which invade our bodies
- C) They are the way our blood clots when we are bleeding from an open wound
- D) They are the way our body reacts when blood is being transfused



**9. The volume of normal human blood is composed of mostly of:**

- A) Red cells
- B) Haemoglobin
- C) Plasma
- D) White cells



**10. What filters wastes and other harmful substances from the blood?**

- A) Heart
- B) Intestine
- C) Liver
- D) Kidney

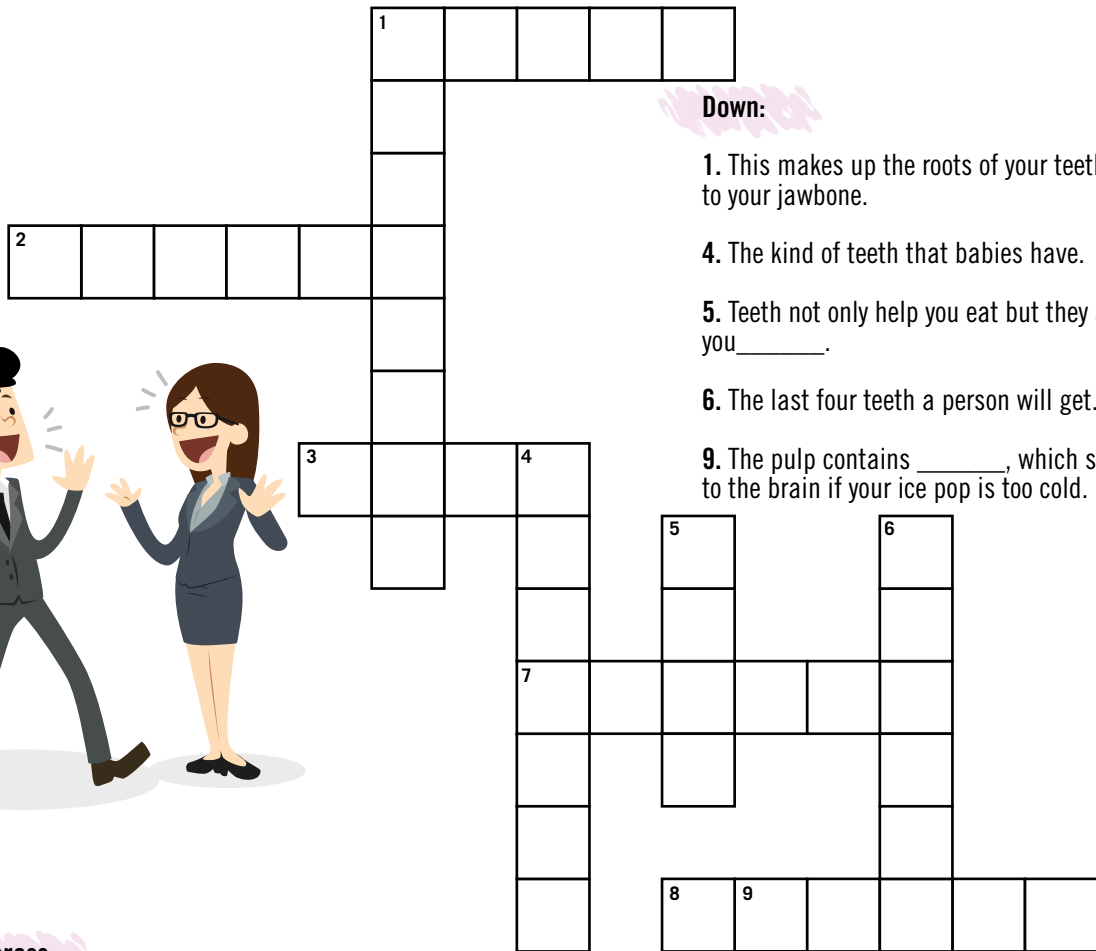


# ANSWERS

- 1 - A** - There are no population or regional differences. All healthy people produce these 4 main blood components.
- 2 - A** - Erythrocyte literally means red cell in Greek.
- 3 - B** - There are numerous types of white blood cells, many of which function to seek out and destroy alien microbes in our bodies. Some other types of white cells have the function of getting rid of old unneeded blood cells.
- 4 - C** - Most of blood's volume is made up of plasma. As the heart pumps blood to cells throughout the body, the plasma brings them nourishment and removes the waste products of metabolism. It also transports the red and white blood cells as well as the platelets.
- 5 - B** - In response to such an attack, the leukocytes, or white blood cells, normally appear at the site of infections in increasing numbers. They attack the invading bacteria and ultimately get rid of them if they are successful.
- 6 - B** - Agglutination is the result of red cells being stuck together by antibodies attaching on to antigens on the alien red blood cells. Within the body, this recognition-rejection process results in the bursting of alien red cells rather than agglutination.
- 7 - A** - They are relatively large molecules that identify a blood type. Each antigen type has unique traits that, in a sense, make it like a lock that only a specific antibody key can fit.
- 8 - B** - Microorganisms carry foreign antigens on their surfaces which stimulate the production of white blood cell antibodies that attack the antigens as a way of getting rid of the invading parasites and subsequently develop an immunity to future attacks.
- 9 - C** - The liquid component of blood that we call plasma is the most abundant substance in blood. However, red cells are a close second.
- 10 - D** - Every day, the two kidneys filter about 120 to 150 quarts of blood to produce about 1 to 2 quarts of urine, composed of wastes and extra fluid. The urine flows from the kidneys to the bladder through two thin tubes of muscle called ureters, one on each side of the bladder.

# CROSSBONES

*The teeth are the hardest substances in the human body, and the normal adult would have around 32 teeth. Put your teeth knowledge to the test with this crossword puzzle!*



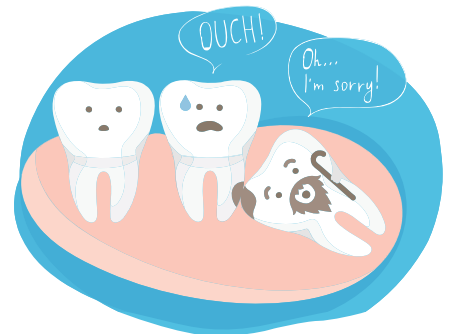
**Down:**

- 1. This makes up the roots of your teeth and attaches to your jawbone.
- 4. The kind of teeth that babies have.
- 5. Teeth not only help you eat but they also help you \_\_\_\_\_.
- 6. The last four teeth a person will get.
- 9. The pulp contains \_\_\_\_\_, which send messages to the brain if your ice pop is too cold.



**Across:**

- 1. The part of the tooth you can see above the gum.
- 2. This type of tooth is pointy, sharp, and made to help tear food.
- 3. The innermost part of the tooth that the dentin protects
- 7. These teeth are big and strong to help you grind food so it can be swallowed.
- 8. The hard, tough, and shiny substance that covers the crown.



1. Crown 2. Canine 3. Pulp 4. Primary 5. Talk 6. Wisdom 7. Molars 8. Enamel 9. Nerves

Down

Across



# FUNNY BONES

⊕ “What did the nervous kid say when the doctor asked if he had been getting enough iron?”

“Yes, I chew my nails every day”.



Q: What can you catch but not throw?

A: A cold

⊕ A doctor sent this note to our medical clinic: “Patient needs a referral for your office from me. I saw her for her ankle and would like you to run over it.”



⊕ They’ve just found a gene for shyness. They would have found it earlier, but it was hiding behind a couple of other genes.

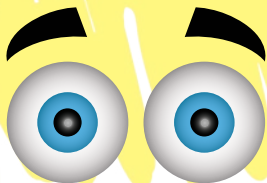


Q: What’s the difference between a person with a terrible toothache and a rainy day?

A: One is roaring with pain; the other is pouring with rain.

Q: What body part is pronounced as one letter but written with three, only two different letters are used?

A: Eye



⊕ When my three-year-old was told to pee in a cup at the doctor’s office, he unexpectedly got nervous. With a shaking voice, he asked, “Do I have to drink it?”



**KPJ HEALTHCARE BERHAD** (247079-M)  
(A Member of Johor Corporation Group)

**Care for Life**



# QUALITY HEALTHCARE

## OUR STRENGTHS

- More than 1,000 medical specialists as well as 12,000 support staff providing nursing, paramedic, pharmaceutical, technical and management services.
- Hospitals are equipped with modern medical technology as well as facilities that allow us to offer a comprehensive set of medical services including cardiac, orthopaedics, oncology, bariatric surgery, and reconstructive and plastic surgery, among others.
- Our commitment to patient safety is reflected in having 17 KPJ hospitals accredited by the Malaysia Society for Quality in Health (MSQH) which is affiliated with the International Society for Quality in Health Care (ISQua), as well as 4 hospitals accredited by the Joint Commission International (JCI).
- KPJ hospitals also implement the Integrated Management System (IMS), thus guaranteeing high standards in quality services, environmental safety and health management.
- The above qualities have enabled KPJ hospitals to attract 2.5 million outpatients and more than 280,000 inpatients in 2015, including a sizeable number of foreign patients from all over the world.
- The upgrading of KPJ's education arm to KPJ Healthcare University College (KPJUC) in 2011, clearly signifies KPJ's drive to continuously strive for excellence. This official upgrade is a testament to our unceasing commitment, and is a well-deserved recognition of KPJ's efforts in healthcare education.