Herbal treatment for anxiety

If you're considering taking any herbal supplement as a treatment for anxiety, talk to your doctor first, especially if you take other medications.

SEVERAL herbal remedies have been studied as a treatment for anxiety, but more research is needed to understand the risks and benefits.

Here's what we know, and don't know.

Kava – Kava appeared to be a promising treatment for anxiety, but reports of serious liver damage – even with short-term use – caused the US Food and Drug Administration (FDA) to issue warnings about the use of dietary supplements containing kava.

While these initial reports of liver toxicity have been questioned, use extra caution and involve your doctor in the decision if you're considering using products containing kava.

Passion flower – A few small clinical trials suggest that passion flower might help with anxiety.

In many commercial products, passion flower is combined with other herbs, making it difficult to distinguish the unique qualities of each herb.

Passion flower is generally considered safe when taken as directed, but some studies found it can cause drowsiness, dizziness and confusion.

Valerian – In some studies, people who used valerian reported less anxiety and stress.

In other studies, people reported no benefit.

Valerian is generally considered safe at recommended doses, but since long-term safety trials are lacking, don't take it for more than a few weeks at a time, unless your doctor approves. It can cause some side effects such as headaches, dizziness and drowsiness.

Herbal remedies have been studied as a treatment for anxiety, though more research is needed. — TNS

Chamomile – Limited data shows that short-term use of chamomile is generally considered safe and can be effective in reducing symptoms of anxiety.

But chamomile can increase the risk of bleeding when used with blood-thinning drugs.

Use of chamomile can cause allergic reactions in some people who are sensitive to the family of plants that includes chamomile.

Other members of this family are ragweed, marigolds, daisies and chrysanthemums.

Lavender – Some evidence suggests that oral lavender or aromatherapy with lavender can reduce anxiety; however, evidence is preliminary and limited.

Oral lavender can cause constipation and headaches. It can also increase appetite, increase the sedative effect of other medications and supplements, and cause low blood pressure.

Lemon balm – Preliminary research shows lemon balm can reduce some symptoms of anxiety, such as nervousness and excitability. Lemon balm is generally well-tolerated and considered safe for short-term use, but can cause nausea and abdominal pain.

Herbal supplements aren't monitored by the FDA the same way medications are. Despite enhanced quality control regulations in place since 2010, the quality of some supplements may still be an issue.

Remember, natural doesn't always mean safe.

If you're considering taking any herbal supplement as a treatment for anxiety, talk to your doctor first, especially if you take other medications.

The interaction of some herbal supplements and certain medications can cause serious side effects.

Some herbal supplements taken for anxiety can cause you to feel sleepy, so they may not be safe to take when driving or doing dangerous tasks. Your doctor can help you understand possible risks and benefits if you choose to try an herbal supplement.

If your anxiety is interfering with daily activities, talk with your doctor. More serious forms of anxiety generally need medical treatment or psychological counseling (psychotherapy) for symptoms to improve. – Mayo Clinic News Network/Tribune News Service

Extreme cleanliness next to sickliness?

FOR the obsessively clean, beware. Those cleaning chemicals you spray all over to get your house spick-and-span may be hurting your lungs.

Dr Clayton Cowl, a Mayo Clinic lung specialist and toxicologist in the United States, says cleaning chemicals are a risk, but one that can be managed.

"Well, I think we all know that there are a lot of different chemicals that we potentially are exposed to at home," he says.

According to research, people who are frequently exposed to cleaning chemicals over extended periods of time have shown decreased lung function.

Dr Cowl says it's something to keep in mind, but most people probably aren't inhaling these chemicals often enough to really cause harm.

"I think the message here is that (with) everything we have in our closet, we're (not) immediately going to disintegrate from them," he says.

But he says those who clean professionally or are exposed to cleaning chemicals repeatedly and frequently, should take steps to limit their exposure.

"I think using products that are less toxic – that may be more environmentally friendly – and also, just when you're applying those products, doing it with the adequate amount of ventilation around.

"(Those) are all things that you can do... to minimise the long-term risk," Dr Cowl says.

So if you want to breathe easy in a squeaky clean home, turn on a fan or open a window while you clean.

Don't mix products.

And select cleaners with less irritating fumes. – Mayo Clinic News Network/Tribune News Service

People who are frequently exposed to cleaning chemicals over extended periods of time have shown decreased lung function. — TNS

Play therapy is one of the keys to protecting yourself from injury as you age. — TNS

Make protecting yourself from injury child's play

AS we age, most people slow down a bit to protect themselves from injury. Turns out, that may be the opposite of what they should do.

Danielle Johnson, a wellness physical therapist with the Mayo Clinic Health Living Program in the United States, says play therapy is one of the keys to protecting yourself from injury as you age.

"We lose the ability to stabilise our core in diagonal and rotational planes, which has big effects on our risk of injury, back injury, hip injury, neck injuries," she says.

She tells patients to picture a baby who is just learning to crawl.

Then she asks how many of them are still able to get on the floor and crawl around – even though their bodies were made for such movements.

Johnson says reteaching your body to move like a child can actually protect you from serious injuries.

And one of the best ways to move like a kid, she says, is to play like one.

"So things like hanging, jumping, crawling, running, playing actually can be a very fundamental way (to) move where we're really incorporating all different elements of movement, from balancing to efficiency of movement, to knowing how to sequence and time a jump," she says.

Johnson encourages people to make up games like tossing balls while balancing on beams and constantly moving.

She says the fun and laughter, along with the movement, can improve your health just as much as trudging along on a treadmill. – Mayo Clinic News Network/Tribune News Service

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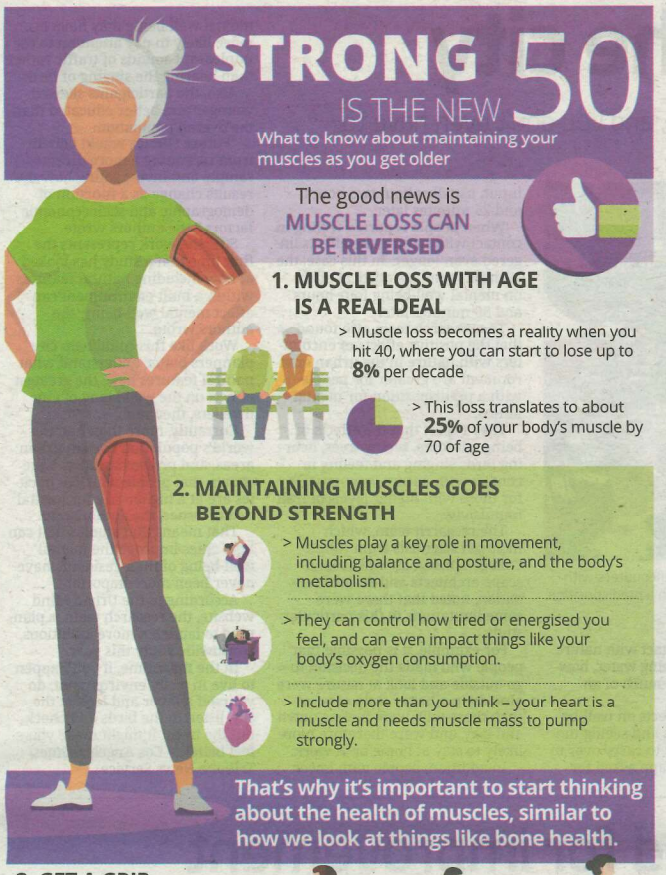

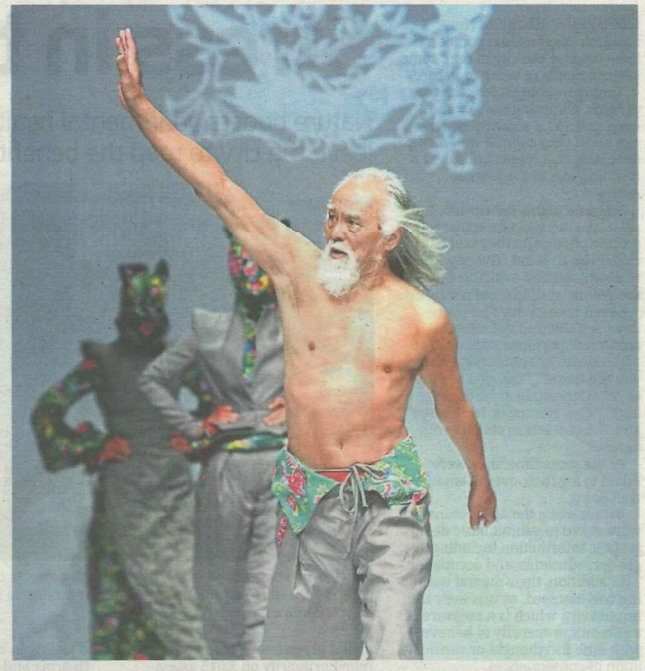

Wang doing the catwalk that earned him the nickname "hottest grandfather" in 2015. — Hu Sheguang

Old and strong

Good muscle health is critical for the elderly in order to help keep them mobile and as independent as possible.

By TAN SHIOW CHIN
starhealth@thestar.com.my

IN 2015, two grandfathers from China went viral, earning them the nicknames "hottest grandfather" and "muscular grandfather" respectively.

The former was Beijing-based Wang Deshun, then 79, whose toned physique and fierce attitude during his shirtless catwalk during that year's China Fashion Week took the world by storm.

The latter was Guangzhou native Shen Hua, then 81, whose daily one-hour high-intensity strength-training sessions at the gym thoroughly impressed netizens.

Building our muscles is probably the last thing on our mind as we age, so it is probably even more impressive that these two men only started working out seriously at the ages of 50 and 70 respectively.

Wang, whose daily routine includes three hours a day at the gym doing a combination of weights, cardiovascular exercises and stretching, started his workouts as part of maintaining his career as an artiste and actor.

Shen, on the other hand, started working out as a way to slow down the process of ageing.

For the rest of us though, the process is more likely to be the opposite – we are more likely to grow more sedentary the older we get, especially after retirement.

Consultant geriatrician Professor Dr Tan Maw Pin notes that because of our Asian respect for elders, we tend to rush to relieve those older than us of physical chores, for example, carrying items or household work.

This, however, does them no favours as it deprives their muscles of use.

"Unfortunately, a lot of our older people, because they don't maintain their muscle strength, it deteriorates so fast that usually by the time they retire, they already need some form of care because they can no longer be independent, so they cross the threshold of disability," she says.

It also does not help, she adds, that Malaysians in general tend to lead a more sedentary lifestyle.

"This is even more apparent when they fall ill," says the Universiti Malaya lecturer.

"Because they have low muscle strength to begin with, as soon as they fall ill, their muscles start shrinking away."

When seniors fall

Prof Tan notes that the World Health Organization (WHO) has been emphasising on physical activity for all ages for years.

In fact, one of the organisation's physical activity recommendations for adults aged 65 and above specifically states that they should do muscle-strengthening exercises involving the major muscle groups two or more days a week.

Another recommendation is that: "Older adults, with poor mobility, should perform physical activity to enhance balance and prevent falls on three or more days per week."

Falls are a major concern when it comes to senior citizens as they can lead to disability, loss of independence, and even death.

The US Centres for Disease Control and Prevention (CDC) reports that one in five falls lead to serious injuries such as broken bones and head trauma.

And even when a fall does not result in a serious injury, many elderly who have experienced one become scared of falling again, and thus, limit their physical activities.

This, ironically, actually increases their risk of falling again.

According to the WHO, falls are the second leading cause of accidental or unintentional injury deaths worldwide (after road traffic injuries), and adults aged 65 and over are the ones suffering the highest number of deaths and injuries.

In Malaysia, a 2015 study published in the *Medical Journal of Malaysia* found that one in five (19.1%) of those aged 60 and

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Stress in the city

Nature boosts your mental health, and you don't even have to leave the city to reap the benefits.

GOOD news, urbanites! New research suggests that you don't have to leave the city to reap some of the benefits of being in nature.

Simply listening to the chirping of birds, glimpsing the sky and even noticing a scrawny city tree can boost your mental well-being, according to a report published a few days ago in the journal *Bioscience*.

To come to this conclusion, the researchers used data collected by a smartphone app they created called Urban Mind. The app is free to download and available for both the iPhone and Android platforms.

Seven times a day for seven days, self-selected volunteers answered questions such as, "Are you indoors or outdoors?", "Can you see trees?", "Can you see the sky?", "Can you hear birds singing?", "Can you see or hear water?" and "Do you feel in contact with nature?"

At the same time, they were asked to log their overall emotional well-being.

Before using the app, volunteers were asked to submit basic demographic information including age, gender, education and occupation.

In addition, their mental well-being was assessed, as was their trait impulsivity, which is a measure of a person's propensity to behave with little forethought or consideration of consequences.

People who have higher trait impulsivity are more likely to develop mental health issues such as addiction, ADHD and bipolar disorder, the authors said.

The research team also found that the positive effects of encounters with nature in the urban environment are greater for people with a predisposition for mental illness.

For this study, which was part of a pilot programme, the researchers relied primarily on 3,013 assessments from 108 participants.

The authors found that people were more likely to report higher states of well-being when they were outdoors, seeing trees, hearing birds singing, seeing the sky, and feeling in contact with nature.

Hearing and seeing water, however, did not have much of an effect.

The positive effects on well-being of seeing trees and seeing the sky also appeared to carry over to the next time the app asked for input, usually about two hours and 25 minutes later.

When people reported feeling in contact with nature, the effects lingered even longer. In this case, the authors found a statistical effect on mental well-being four hours and 50 minutes later.

The research team also found that the positive effects of encounters with nature in the urban environment are greater for people with a predisposition for mental illness.

They report that the effects of being outdoors, seeing trees, hearing birds singing and feeling in contact with nature were greater for those with higher levels of trait impulsivity.

The research team, which included scientists from King's College London as well as landscape architects and an art foundation, noted that there were some limitations to this particular study.

For example, it is possible that people who made the decision to go outside and look at nature were already in a better state of mind than those who were feeling down and lazy, and were therefore more likely to stay at home or at work.

In addition, people with lower mental well-being may have been more likely to pay attention to the unpleasant sounds of traffic rather than hearing the singing of birds.

Also, the participants skewed younger and better educated than the overall population.

"Future studies would benefit from recruiting a more diverse sample and investigating how the results change as a function of demographic and socioeconomic factors," the authors wrote.

Still, the work represents the first time that a study has looked at how including natural features within a built environment can affect mental well-being, the authors wrote.

Work like this could help city planners better understand what natural features have the greatest effects on the well-being of city dwellers, they said.

Currently, more than half the world's population lives in urban areas, and previous studies have shown that people who live in cities are at a higher risk for mental health issues, the authors said.

That means that studies that can help cities improve the mental well-being of their residents have never been more important.

According to the Urban Mind website, the research team is planning to launch a more ambitious, worldwide study this year.

In the meantime, if you happen to live in a city environment, do yourself a favor and look at the sky, listen to the birds and check out the trees. It might make you feel better. – Los Angeles Times/Tribune News Service

Change in attitude required for improvement

> FROM PAGE 3

above had experienced falls.

And it is not just the effect on the health of the affected person that is an issue; there is also the matter of cost.

While the main focus tends to be on the healthcare cost, e.g. hospital bills, Prof Tan says: "The other issue is social care.

"We all know that the social care bill is now going up a lot when it comes to the general population – a lot of family members are crying out because they can no longer hire maids to help their older folks.

"And when the older person needs care, they are now spending a lot of money to hire private nurses, or even, sometimes they have to give up work themselves, and occasionally, when they have no choice – they cannot give up work and they cannot hire anybody – they put the older person in a nursing home.

"And all this is because the older person is dependent, and a large cause of the dependency is low muscle strength – they cannot do things for themselves."

Doing tai chi, as seen in this filepic, is a good muscle-strenghtening exercise that also promotes a sense of balance. (Right) Prof Tan says that elderly patients should ideally start getting up and moving around as much as they can from the very first day of their hospitalisation, in order to avoid their muscles from wasting away. — LOW LAY PHON/The Star

Males not as strong

According to her, our muscle strength gradually increases from the time we are born to around the age of 25.

"At that point, we know that muscle bulk starts going down, muscle strength starts going down, but the rate of decline is really dependent on the person's physical activity, and also, if they have been unlucky enough to have illnesses, then it deteriorates more quickly."

In general, males tend to have much more muscle strength than females, thanks to the influence of higher levels of the testosterone hormone.

Shares Prof Tan: "When we test muscle strength in my practice, we use a grip-strength dynamometer, and we know that on average, men can actually grip 10kg more than women.

"But very interestingly, when we did research to determine the normal range for Malaysians, we found that the discrepancy between men and women in Malaysia is a lot less than the discrepancy in other societies."

She says with a smile that it may be because our women are "much more industrious".

There is also no significant difference in walking speed, a measure of fitness, between Malaysian men and women, she adds.

"The truth is, in our society, a lot of our men are very sedentary, and as soon as they retire, actually take on less physical activity than their spouses.

"So we have a huge issue in that men are very unhealthy," she says.

This is especially as women, particularly those of the generation that are senior citizens now, tend to do almost all of the housework.

They are also more diligent about taking care of their health and exercising, compared to men.

Exercise and diet

However, the problem is that the exercises senior citizens tend to do are not for building their strength or muscles.

Prof Tan notes that one of the building blocks of muscles is resistance exercise, or strength training.

"A lot of people fail to realise this, so they keep on exercising and wonder why they are not getting their muscles," she says.

"It's because they are just doing cardiovascular exercise – they just walk in the park.

"So they are just exercising their hearts, which is good, but often, our older generation think that strength training is not relevant to them."

She suggests that older people can take up tai chi, which is good for maintaining balance and incorporates some strength training.

There are also bodyweight exercises, which require no equipment and can be done at home, and the free outdoor gym equipment in public playgrounds or *padang*.

However, strength training is not enough if the person does not consume the building blocks of muscle, i.e. protein, sufficiently in the first place.

"Unfortunately, our Eastern diet, especially for the older generation, probably doesn't contain as much protein – traditionally, our cuisine has a lot of carbohydrates.

"And also, there's currently a lot of misgivings about protein, because people think protein cause gout and kidney problems," she says, adding that for the kidneys, protein consumption only causes problems in very severe kidney disease.

"Another issue is that you need teeth to eat protein. A lot of older people had very poor dental care – prior to this, they couldn't afford dental care – so, no teeth, cannot bite," she adds.

While Prof Tan says that the quality of a person's daily diet should be of utmost importance, supplementation is recommended for the elderly if they fall ill or are recovering from illness.

Over the past decade or so, the amino acid leucine has been singled out for its critical role in muscle-building.

According to Prof Tan, the consumption of leucine helps to both reduce skeletal muscle loss and encourage the building of such muscles in the elderly who are ill or recovering from illness.

In fact, there is now an even more refined version of this essential amino acid. (An essential amino acid is one that cannot be synthesised by the human body and needs to be obtained through our diet.)

According to Prof Tan, HMB (ß-hydroxy ß-methylbutyrate) is the useful part of leucine, which is a large molecule.

"It would do the same thing as leucine," she says.

"But if your body is not working so well (due to illness), you probably ought to have the essential ingredient because your body might not be breaking down leucine in the right way."

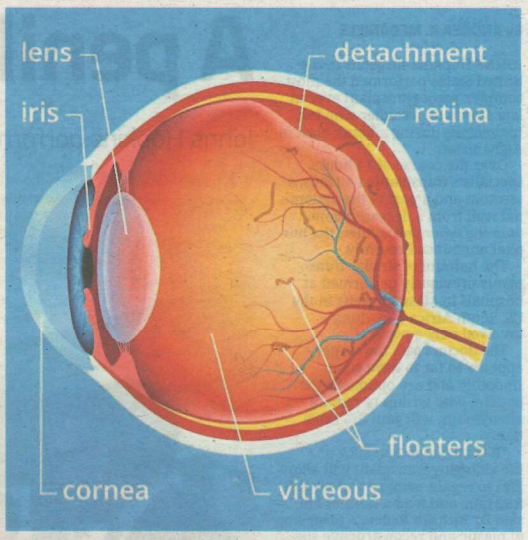
She stresses that improving muscle health can, and should, be done at any age.

"Even if your muscle strength deteriorates, it's not too late; you can still do something.

"We have proof that even at 90 years old, we can still restore muscle strength."

Prof Tan was speaking to the media during a recent interview session on muscle health and the importance of nutrition in this area organised by Abbott Malaysia.

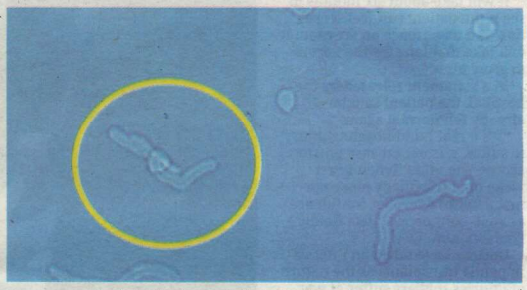
A patient with floaters being treated by an ophthalmologist using the laser vitreolysis technique. — Photos: Handout



Floaters become more mobile and visible as the vitreous liquefies with age and separates from the retina.

Whoa, I'm seeing worms everywhere!

Eye floaters are usually caused by age-related changes that occur as the jelly-like vitreous inside the eyes becomes more liquid.



An example of what a floater typically looks like to the patient.

This is called the Weiss Ring, a type of floater that is very unique because it detached from the optic nerve.

By Dr SUNITA PADMANABHAN

IT'S a description I have heard many times in my practice – worms, spiders, flies – and they usually indicate the same problem, floaters.

What are floaters?

Floaters typically appear when tiny pieces of the eye's gel-like vitreous break loose within the inner back portion of the eye.

When we are born and throughout our youth, the vitreous has a gel-like consistency. But as we age, the vitreous begins to dissolve and liquefy to create a watery centre.

Some undissolved gel particles will occasionally float around in the more liquid centre of the vitreous.

These particles can take on many shapes and sizes to become what we refer to as "floaters".

This can sometimes be quite disturbing. The floaters move as we move our head and eyes.

Most of the time, one or more floaters may appear as lines or cobwebs, but if the numbers suddenly increase from a few lines to many, or if you see flashes of light or "falling stars", or worse, a "black curtain", then you should immediately seek an ophthalmologist's opinion, as such signs may indicate a tear in the retina – the layer of nerves that send visual impulses to your brain telling you what you see.

Most of the time, these floaters do not cause any problem, except maybe to fill our leisure time trying to chase down these disturbing images. Believe me, I've seen my old grandmother try to swat away a fly that she says is always buzzing around her.

So, needless to say, it can prove quite unsettling, but there is hope because floaters slowly fade, and you rarely see them unless you are looking at a bright light or the clear blue sky.

Risk of getting floaters

Floaters are age-related, so it may be seen quite commonly in individuals over the age of 50. But individuals who are near-sighted may notice it earlier in life.

It's also common for people who've experienced trauma or injury to the eye, and even for patients who've undergone cataract surgery.

All this goes to show that floaters are quite common.

An October 2015 study published in the journal *Ophthalmology* revealed that, among people who experienced the sudden symptom of eye floaters and/or flashes of light, 39.7% had a posterior vitreous detachment (PVD) and 8.9% had a torn retina.

Other research has shown that up to 50% of people with a retinal tear will subsequently develop a detachment of the retina, which could lead to significant vision loss.

In cases of retinal tear or detachment, treatment must take place as soon as possible so that an eye surgeon can reattach the retina and restore function before vision is lost permanently.

PVDs are far more common than retinal detachments and are often not emergencies, even when floaters appear suddenly.

Some vitreous detachments can also damage the retina by tugging on it, leading to a tear or detachment.

Light flashes, known as photopsia, can occur when your retina receives non-visual (mechanical) stimulation, which can happen when it is being tugged, torn or detached. These light flashes may appear as lightning bolts, flickering lights or random sparks.

Causes of floaters

As mentioned above, PVDs are common causes of floaters.

Far less commonly, these symptoms can be associated with retinal tears or detachments that may be linked to PVDs.

But what leads to vitreous detachments in the first place?

As the eye develops, the vitreous gel fills the inside of the back of the eye, pressing against the retina and attaching to its surface.

Over time, the vitreous becomes more liquefied in the centre.

This sometimes means that the central, more watery vitreous cannot support the weight of the heavier, more peripheral vitreous gel.

The peripheral vitreous gel then collapses into the central, liquefied vitreous, detaching from the retina (like jelly that's not properly formed separating from the inside of a mould or bowl, leaving tiny chunks behind).

Eye floaters resulting from a PVD are then concentrated in the more liquid vitreous found in the interior centre of the eye. It's estimated that more than half of all people will experience a PVD by age 80.

Thankfully, most of these PVDs do not lead to a torn or detached retina.

Light flashes during this process mean that traction is being applied to your retina while the PVD takes place. Once the vitreous finally detaches and pressure on the retina is eased, the light flashes should gradually subside.

Treatment for floaters

In most cases, treatment is not necessary as these floaters will fade over time. In the past, the only treatment for eye floaters was an invasive surgical procedure called a vitrectomy.

In this procedure, some or all of the vitreous is removed from the eye (along with the eye floaters within it) and is replaced with a sterile clear fluid. But the risks of a vitrectomy usually outweigh the benefits for eye floater treatment.

These risks include surgically-induced retinal detachment and serious eye infections. On rare occasions, vitrectomy surgery can cause new or more floaters. For these reasons, most eye surgeons do not recommend vitrectomy anymore to treat eye floaters and spots.

Recently, a laser procedure called laser vitreolysis has been introduced that is a much safer alternative to vitrectomy for eye floater treatment.

In this in-office procedure, a laser beam is projected into the eye through the pupil and is focused on large floaters, which breaks them apart and/or frequently vapourises them so they disappear or become much less bothersome.

However, it is always best to first and foremost get an opinion from your ophthalmologist, who will do a routine eye examination to rule out any problems like holes and tears in your retina.

If there are none, there's simply no need for any treatment at all.

So once you know the floaters will cause no problems, you can eventually learn to ignore them, and trust me when I say you will see them less often.

Dr Sunita Padmanabhan is a consultant ophthalmologist. This article is courtesy of Columbia Asia Hospital. **The information provided is for educational and communication purposes only and it should not be construed as personal medical advice. Information published in this article is not intended to replace, supplant or augment a consultation with a health professional regarding the reader's own medical care. *The Star* disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.**

A penile transplant

Johns Hopkins performs world's first 'total' penis transplant.

By ANDREA K. MCDANIELS

JOHNS Hopkins surgeons in the United States performed the most complex penis transplant ever in late March on a soldier who lost his genitals during a bomb blast in Afghanistan.

Over the course of 14 hours, specialists transplanted a penis, a scrotum and a part of the abdominal wall from a deceased donor onto the wounded soldier, the hospital announced recently.

The handful of similar transplants previously performed at hospitals in Massachusetts in the US, South Africa and China involved only a penis.

The doctors said the surgery appears so far to have gone smoothly and are optimistic the patient, who wishes to remain anonymous, will gain full function.

"It is our hope that such a life-changing transplant will allow him to regain urinary and sexual function, and lead a normal life," said Dr Richard Redett, a professor of plastic and reconstructive surgery at the Johns Hopkins University School of Medicine.

It will take about six months to see if the patient can feel sensation and experience an erection. It will take that long for the nerves to grow in.

In a statement released by the hospital, the patient said he already felt normal again.

"It's a real mind-boggling injury to suffer, it is not an easy one to accept," he said. "When I first woke up, I felt finally more normal... (with) a level of confidence as well. Confidence... like finally I'm okay now."

Doctors have taken an interest in penile transplants as the nature of injuries soldiers suffer at war has changed.

Some soldiers who lose lower limbs from mines and improvised explosive devices (IEDs) also experience loss of or damage to their genitals, injuries that the Johns Hopkins doctors said are hidden, but just as debilitating.

From 2001 to 2013, about 1,367 male service members were placed on the US Department of Defense Trauma Registry with so-called genitourinary injuries, which include injuries to the genitals.

One of the first questions a soldier will ask after waking up from a severe injury is whether their genitals are intact, said Dr Elspeth Cameron Ritchie, a retired Army psychiatrist and author of a book about intimacy and injury.

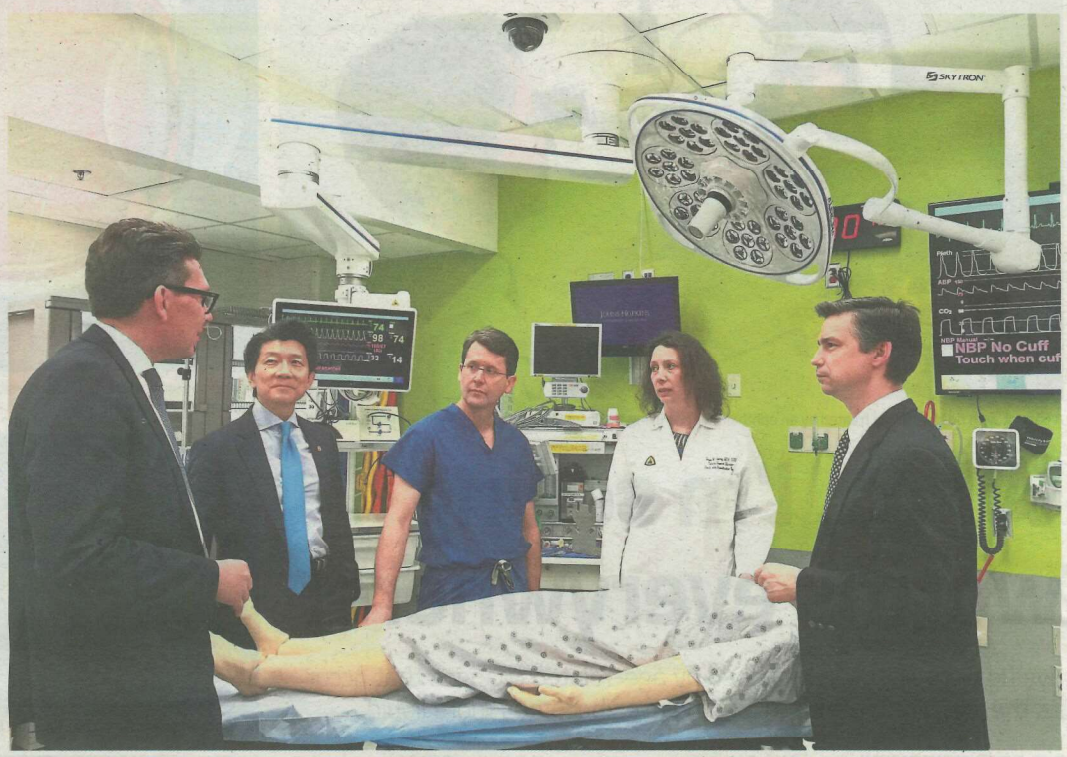
Despite this, these injuries were stigmatised, and until recently, not talked about much. "For many men, a lot of their sense of identity is also wound up in their sense of manhood," she said.

Johns Hopkins doctors formed a team more than five years ago to study and prepare for a penile transplantation, studying blood flow to the penis and practising on cadavers.

They identified the patient in 2012 and talked then about a reconstruction of the penis, using skin from other parts of the body.

While such a procedure is possible, wounded servicemen sometimes don't have enough good tissue to work with and such reconstructed genitals could not achieve an erection, said Dr W.P. Andrew Lee, a professor and director of plastic and reconstructive surgery at the medical school.

The patient, who was serving in Afghanistan when he was caught in an IED blast that also took his legs, decided to wait for a transplant, but it took time for the doctors to perfect the procedure and to find a match.



Speaking together are (from left) Dr Gerald Brandacher, Dr Lee, Dr Redett, Assistant Professor of Plastic and Reconstructive Surgery Dr Carisa Cooney and Dr Damon, following the world's first transplant of a penis and scrotum on a wounded soldier. — TNS

The patient has a rare blood type and the matching process is more involved than inner-organ transplants. Doctors also have to account for factors such as age and skin tone in penis transplants, making the donor pool smaller.

A team of nine plastic surgeons and two urological surgeons performed the transplant. The patient still had a small part of his own penis to attach to the new organ. To ensure blood flow and sensation, surgeons also connected three arteries, four veins and two nerves during the operation.

The donor's testicles were not transplanted, so the patient won't be able to reproduce. Doctors said transplanting them raised ethical issues such as whether the donor's genetic material might go to the patient's children.

"We just felt there were too many unanswered ethical questions with that kind of transplant," said Dr Damon Cooney, a Johns Hopkins assistant professor of plastic and reconstructive surgery.

The patient also was given an infusion of bone marrow from the donor, which allowed doctors to reduce the number of drugs he must take to keep his body from rejecting the penis to just one pill twice a day.

The surgery is the latest breakthrough for the hospital's reconstructive team.

In 2013, the team performed a double arm transplant on Brendan Marrocco, who lost both arms, as well as his legs, in the Iraq War when the armoured vehicle he was driving ran over a bomb in 2009.

> **"We are all very proud that our loved one was able to help a young man that served this country. We are so thankful to say that our loved one would be proud and honoured to know he provided such a special gift to you. As a family, we are very supportive of all the men and women who serve our country and grateful for the job you did for this nation. Please know that this is truly a heart-felt statement, as we have several veterans in the family. We hope you can return to better health very soon and we continue to wish you a speedy recovery."**
>
> Family of donor

He was the first soldier of the Iraq and Afghanistan wars to lose all four limbs in combat and survive.

Transplanting a penis raises a host of ethical questions about costs and necessity.

Sometimes questions arise about whether such a procedure is life-saving, said Dr Robert D. Truog, director of the Harvard Center for Bioethics.

"Medicine is about improving the quality of people's lives, not just saving lives," he said. "When you hear that someone is contemplating suicide and is having a hard time with life, it is hard to say it's not really important."

Johns Hopkins covered the cost of the surgery, which is expected to run around US$300,000-$400,000 (RM1.18mil-RM1.57mil).

The doctors donated their time and are looking for grants to cover other procedures.

As part of the transplant process, the donor's family must be told when certain body parts are donated, especially for newer transplants such as limbs, the face or penis.

The family of the donor released a statement addressed to the patient through New England Donor Services saying why it agreed to such a groundbreaking procedure.

"We are all very proud that our loved one was able to help a young man that served this country," they said. "We are so thankful to say that our loved one would be proud and honoured to know he provided such a special gift to you. As a family, we are very supportive of all the men and women who serve our country and grateful for the job you did for this nation.

"Please know that this is truly a heart-felt statement, as we have several veterans in the family. We hope you can return to better health very soon and we continue to wish you a speedy recovery."

Only a few penis implants have been performed around the world, but this is the most extensive, said Dr Arthur Burnett, a professor in Johns Hopkins' department of urology.

China tried once and failed in the 2000s. Doctors in South Africa performed transplants in 2014 and 2017. In 2016, doctors at Massachusetts General Hospital transplanted a penis without a scrotum on a man who lost his to cancer.

Johns Hopkins is assessing whether other people might qualify for the procedure.

An internal review board approved 60 penis transplants in 2016, but doctors said they will not necessarily do that many.

Johns Hopkins is only considering injured servicemen for the transplants, not transgender individuals or those born with defects.

Dr Andrew Kramer, a professor of surgery at the University of Maryland School of Medicine who performs penis implants and reconstructions, said transplants, if perfected, could help more wounded soldiers and others with severe genital problems.

"I hope this works," he said. – The Baltimore Sun/Tribune News Service

A heavy matter

My child is overweight, so what should I do?

By Assoc Prof Dr MUHAMMAD YAZID JALALUDIN

A CHUBBY and plump child may look adorable and cute, with some saying it's "auspicious" or "well-fed" in our Asian society.

However, round-sized kids should not be regarded as "normal" for health considerations.

It can be hard to tell if a child is overweight as they grow at different rates. One's body mass index (BMI) can be calculated by measuring weight relative to height, to indicate if we are underweight, normal, overweight or obese.

For children, BMI-for-age is determined by using BMI charts that are age- and gender-specific to get a more accurate evaluation, by comparing their BMI with the general child population of their age and gender.

If your child is overweight, take the necessary steps to deal with the problem.

Overweight and obesity are reversible, so take action now.

What should I do?

Cultivate a healthy lifestyle in your child and improve eating habits together as a family.

● **Be a good role model**

It starts with you, the parents.

Children learn from observing people around them. Be more conscious about what you eat and do, and consider how it can influence your child.

You are the one who decides what to buy and eat in your household, and your child will be affected by this.

● **Get the whole family involved**

Have healthy meals and eat together instead of preparing a special dish only for your overweight child.

He is more likely to accept changes that are gradual and involve the whole family as his support.

Everyone will benefit and your child won't feel singled out.

Also, no TV and gadget distractions during mealtimes to allow everyone to eat slowly, mindfully, and at regular hours.

Have bite-sized fruits and veggies like apples, bananas, cherry tomatoes or baby carrots, ready for some healthy snacking. — TNS

Be more conscious about what you eat and do, and consider how it can influence your child. — AFP

Studies show a link between lack of sleep and excess weight. Know the proper hours of sleep for your child's age. — Photos: Handout

For children, BMI-for-age is determined by using BMI charts that are age- and gender-specific to get a more accurate evaluation.

● **Have a Balanced, Moderate, and Varied diet based on the Malaysian Food Pyramid**

A healthy diet has a good balance of each food group, served in moderate quantities, and with a different variety of food, to supply all the nutrients for the whole family.

Use the Malaysian Healthy Plate concept with ½ plate of fruits and veggies, a ¼ plate of grain products, preferably whole grains, and a ¼ plate of fish, meat or poultry.

Give him suitable portions by using a smaller plate.

Also include two glasses of milk daily.

Still hungry? Let him drink more plain water (for good hydration) and finish his vegetables and fruits (to meet five servings a day), instead of rice/noodles to prevent overeating.

● **Discuss healthy eating habits**

Talk to your child about the importance of his health, and how healthy habits like eating vegetables, exercising and sleeping early, can make him strong and prevent illness.

Use simple terms that he can understand.

● **Have home-cooked meals more frequently**

This way, your child's meals will only contain fresh and healthy ingredients cooked with healthier methods like steaming.

Thus, you can reduce fast food consumption and unhealthy snacks like chips or deep-fried food.

● **Healthy eat-out**

When going pack healthy like fresh fruits ble on.

Choose to dine at a healthier restaurant instead of a fast food joint.

Your child will learn that eating out should also be as healthy as eating at home.

● **Healthy snacks everywhere**

Have bite-sized fruits and veggies like apples, bananas, cherry tomatoes or baby carrots available where they are easy to see and reach.

Keep high-calorie food and drinks out of sight.

● **No food bribes/punishment**

Don't offer your child dessert for cleaning up his room or deny him dinner for misbehaving. This can create an unhealthy relationship with food.

● **Never skip breakfast**

A healthy breakfast provides sufficient energy to kick-start the day after nine to 11 hours of "fasting" (sleeping time) from your dinner, hence why it is called "break-fast".

Skipping breakfast can also lead to overeating later in the day.

● **Ensure good sleeping habits**

Studies show a link between lack of sleep and excess weight. Insufficient sleep also affects mood and behaviour, but excessive sleep is also bad.

Know the proper hours of sleep for your child's age.

Get moving!

Your child needs at least a total of 40-60 minutes of moderate to vigorous physical activity daily (you can achieve this by doing several short sessions that add up to one hour).

Younger children can play ball games or chasing games, while older children can take up activities like cycling or badminton.

Outdoor activity is also a good time for family bonding.

In addition, limit your child's screen time and sedentary activity. Do not let them spend more than two hours on TV, video games, computer or smartphones, which makes them sit and lie around too much.

If your efforts to follow all these tips are not showing results, consult your child's paediatrician for other options. He may recommend a diet and exercise plan, or refer you to a dietitian or weight management programme suitable for your child.

Assoc Prof Dr Muhammad Yazid Jalaludin is a consultant paediatrician and paediatric endocrinologist. **This article is courtesy of the Malaysian Paediatric Association's Positive Parenting programme in collaboration with expert partners. For further information, please e-mail starhealth@thestar.com.my or visit www.mypositiveparenting.org. The information provided is for educational and communication purposes only and it should not be construed as personal medical advice. Information published in this article is not intended to replace, supplant or augment a consultation with a health professional regarding the reader's own medical care. *The Star* disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.**

Two Fit Revathi Murugappan
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Know your heart

Are you really fit? Your heart rate variability can tell you.

Knowing your heart rate during your workouts, when you're not exercising, and when you're resting or sleeping, can lead you to optimal wellness. — AFP

HOW do you measure physical fitness?

The majority measure it according to how the body looks, how it performs during workouts, how much weights it can lift, how fast it can run, how much fat percentage it holds, etc.

The real measure of fitness, however, is largely ignored by most people.

The answer lies in the state of your heart.

Knowing your heart rate during your workouts, when you're not exercising, and when you're resting or sleeping, can lead you to optimal wellness. It can also give you the peace of mind that your heart is a strong as the rest of you.

Your heart rate will vary according to age, type of workout, your level of conditioning, health issues, medications, exercise goals, and environment or weather.

"A healthy heart will immediately start dropping its rate once exercise has stopped, whereas an unhealthy heart or an unconditioned body will cause your heart rate to remain high after exercise has stopped.

"This could be a sign of a serious health issue, it could mean your exercise intensity was too high, or it could mean a case of deconditioning," says personal trainer, exercise therapist and author of *It's All Heart*, Bobby Whisnand.

Heart rate measurement is simple and can be done manually by counting your pulse. Generally, Mayo Clinic says a normal resting heart rate for adults ranges from 60 to 100 beats a minute.

A lower heart rate at rest implies more efficient heart function and better cardiovascular fitness. For example, a well-trained athlete might have a normal resting heart rate closer to 40 beats a minute.

Lately, research has revealed that knowing your heart rate alone is not a good indicator of heart health. To dig a little deeper, you also have to measure your heart rate variability (HRV), which can enable you to see how you handle stress.

While heart rate focuses on the average beats per minute, HRV measures the specific changes in time (or variability) between each successive heartbeat.

Multiple wearables and smartphone apps can help you measure your HRV. — AFP

The time between beats is measured in milliseconds (ms) and is called an "R-R interval" or "inter-beat interval" (IBI).

Previously, HRV could only be measured at the doctor's office with an electrocardiogram (ECG) test, which measures the electrical activity of the heartbeat.

With each beat, an electrical impulse (or "wave") travels through the heart.

This wave causes the muscle to squeeze and pump blood from the heart. But, with the availability of multiple wearables and smartphone apps, these devices can now do the work for you.

According to an overview of research conducted by the HeartMath Institute in the United States, the importance of HRV was noted as far back as 1965, when it was found that foetal distress was preceded by reductions in HRV before any changes occurred in heart rate.

Later, studies revealed that reduced HRV was shown to predict autonomic neuropathy in diabetic patients before the onset of symptoms.

Reduced HRV was also found to be a higher risk factor of death from heart attacks compared to other known risk factors.

It has been shown that HRV declines with age and that age-adjusted values should be used in the context of risk prediction.

Age-adjusted HRV that is low has been confirmed as a strong, independent predictor of future health problems in both healthy people and in patients with known coronary artery disease.

Generally, a low HRV (or less variability in the heart beats) indicates that the body is under mental, physical, emotional or physiological stress. Higher HRV (or greater variability between heart beats) usually means that the body has a strong ability to tolerate stress or is strongly recovering from prior accumulated stress.

It is also associated with improved body system functioning and better athletic performance.

At rest, a high HRV is generally favourable, while in an active state, a lower HRV is favourable.

The study, *Short-Term Heart Rate Variability – Influence of Gender and Age in Healthy Subjects*, by Voss A et al. (2015) published in the *Plos One* peer-reviewed journal, shows that males typically have lower HRV than females of the same age.

This indicates that males exhibit stronger sympathetic (fight-or-flight stress response) tendencies over parasympathetic (rest-and-digest), than comparable females.

Yes, women do have healthier hearts!

Can you improve your HRV?

It depends.

If you have no underlying medical conditions, then yes.

Otherwise, speak to your doctor first. Regular exercise (aim for 30 minutes of moderate aerobic activity a day), combined with breathing techniques, can help increase your HRV. Deep and controlled breathing taps into the parasympathetic nervous system, helping you calm down and lower your pulse.

Do not compare your HRV to others as there are many factors such as age, health, gender and fitness level to account for. Compare yourself against people within similar demographics.

Knowing the numbers and where you stand can motivate you to make lifestyle changes and healthier choices.

Is physical appearance an accurate indicator of general fitness? Not necessarily. — Reuters

Revathi Murugappan is a certified fitness trainer who tries to battle gravity and continues to dance to express herself artistically and nourish her soul. **The information provided is for educational and communication purposes only and it should not be construed as personal medical advice. Information published in this article is not intended to replace, supplant or augment a consultation with a health professional regarding the reader's own medical care. *The Star* disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.**

Be aware of B12

Vitamin B12 deficiency is one of the most prevalent nutritional deficiencies.

WE used to think that deficiencies of vitamin B12 were rare except among strict vegetarians or people with an autoimmune disease called pernicious anaemia.

New evidence now indicates that if you're on this list, you may be at risk for a B12 deficiency: 50 years or older (we can lose the ability to absorb vitamin B12 as we age), vegetarian or vegan (B12 is not found in plant foods), take metformin (a diabetes medication that can reduce the body's ability to absorb B12), have any type of intestinal disorder or stomach surgery such as gastric bypass (vitamin B12 needs a well-functioning gut to be absorbed), and take anti-acid medicines or aspirin, ibuprofen or similar types of pain relievers (some meds can reduce the effectiveness of stomach acids to digest and absorb B12).

Although it is only required in micro amounts, vitamin B12 is vital for the formation of healthy red blood cells and helps build everything from genetic material (DNA) to hormones and other proteins.

Perhaps most notable is B12's role in our nervous system – all the pathways that help us to think, move and speak. A deficiency of vitamin B12 can cause the brain to malfunction and lead to dementia, for example.

Vitamin B12 (also known as cobalamin because it contains the mineral cobalt) also helps keep our homocysteine levels in check.

High amounts of homocysteine are associated with inflammation that can lead to heart disease.

For most of us, the most reliable sources of B12 are animal foods including fish, poultry, meat, eggs, milk, cheese and yoghurt.

Just 3 ounces of cooked clams, for example, provides more than a thousand times our recommended intake of vitamin B12, according to the US Department of Agriculture (USDA) Nutrient Database.

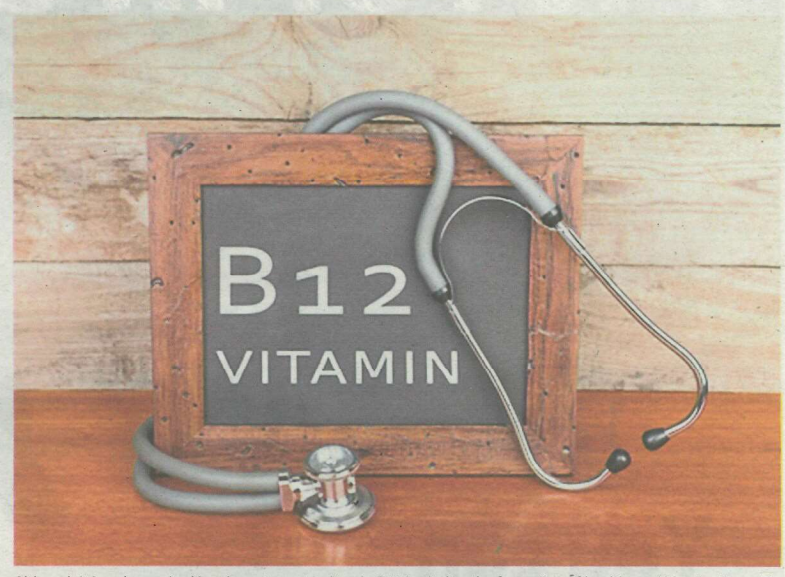
Other reliable sources include B12 supplements or fortified foods such as cereals and nutritional yeasts.

People with pernicious anaemia or other disorders that prevent them from absorbing vitamin B12 in the stomach may need to rely on regular injections of this important nutrient directly into the bloodstream.

How much vitamin B12 we need in a day may also be changing. New evidence suggests the current recommendation may be too low to accomplish all its vital functions.

In the meantime, here is a hint when talking to your doc about testing your vitamin B12 levels.

Blood tests for vitamin B12 may not tell the whole story, according to recent research. According to the US National Institutes of Health, additional laboratory tests that include homocysteine and methylmalonic acid values may also be needed to reliably detect low levels of vitamin B12. – The Monterey County Herald/Tribune News Service



Although it is only required in micro amounts, vitamin B12 is vital to the formation of healthy red blood cells and it helps build everything from genetic material (DNA) to hormones and other proteins. — TNS

Ovarian cancer is hard to detect

While ovarian cancer tends to occur in post-menopausal women, anyone can be at risk. — TNS

OVARIAN cancer is estimated to affect more than 22,000 women each year in the United States and is the fifth leading cause of cancer deaths among women, according to American Cancer Society.

Unlike other gynaecologic cancers, there are no screening tests for ovarian cancer.

While some women diagnosed with ovarian cancer have elevated levels of the CA 125 protein, the associated blood test is not accurate enough for ovarian cancer screening, as many non-cancerous conditions can increase the CA 125 level.

Ovarian cancer is hard to detect in its early stages due to its vague symptoms.

Women may experience constipation, bloating, early satiety after eating and back pain.

While ovarian cancer tends to occur in post-menopausal women, anyone can be at risk.

A number of factors, including smoking, endometriosis, polycystic ovary disease and obesity, can raise a woman's risk for the disease.

About 20% of all ovarian cancers are caused by a genetic mutation.

The genes most likely to increase the risk of ovarian cancer are BRCA1 and BRCA2.

These genes also affect a woman's risk of breast cancer.

Genetic mutations that cause Lynch syndrome, an inherited condition associated with colon cancer, also raise a woman's risk of ovarian cancer.

Over the past two decades, there were few options to treat ovarian cancer other than surgery and chemotherapy. And recurrence of the disease was common.

"Ovarian cancer, thankfully, does respond really nicely to surgery and chemotherapy.

"But unfortunately, in roughly 70% of patients, we do see recurrence," says Dr Andrea Wahner Hendrickson, a Mayo Clinic oncologist in the US.

But thanks to research by Dr Wahner Hendrickson and her colleagues, patients now have additional – and sometimes, more effective – options for treatment, including individualised medical therapy and immunotherapy.

Currently there are more than 1,350 clinical trials for ovarian cancer, including a vaccine trial aimed at preventing recurrence.

Since not all tumours respond to every treatment, Dr Wahner Hendrickson recommends all ovarian cancer patients undergo genetic testing to see which therapy might work best for them.

"Thanks to the innovations, I think there's a lot of promise and hope in the treatment of ovarian cancer," she says.

She encourages women of all ages to see their physician if they experience abnormal signs or symptoms. – Mayo Clinic News Network/Tribune News Service

Wearing artificial nails

ARTIFICIAL nails, a nail enhancement that can be made from a variety of materials, aren't likely to harm healthy natural nails.

However, artificial nails sometimes can cause problems, such as an infection.

Popular types of artificial nails include acrylic and gel nails.

Both are made with types of acrylic, but gel nails require "curing" with ultraviolet light.

If an artificial nail is damaged or as your natural nails grow, a gap can develop between the artificial nail and your natural nail.

This gap provides a moist, warm environment in which a nail infection can flourish.

A nail infection might also occur if artificial nails are too long or rigid, or the nails are applied with unsanitary tools.

It's also possible to have an allergic reaction to components of artificial nails or their adhesives.

Signs of a nail infection include redness, swelling and pus.

If you choose to have artificial nails applied in a salon, take these steps to minimise the risks:

- Ensure your nail technician properly sterilises all tools used during your treatment and washes his or her hands between customers.
- Request a new nail file or consider bringing your own, since nail files can't be sterilised.
- Return to the salon every two to three weeks for maintenance.

If you apply artificial nails at home, follow the safety precautions on the package.

Work in a well-ventilated area, and protect the skin around your nails from the chemicals used during the application process.

Consider removing your artificial nails and letting your natural nails breathe every two to three months.

If you suspect a nail infection, consult a dermatologist for an evaluation. – Mayo Clinic News Network/Tribune News Service

Consider removing your artificial nails and letting your natural nails breathe every two to three months. — TNS

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Women's World

Datuk Dr Nor Ashikin Mokhtar

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YOUR menstrual cycle has already ended and you're looking forward to going for a swim. But when you're in the bathroom, you look down and get a shock – there's blood on your underwear!

It's natural to be alarmed when blood shows up unexpectedly. It could be due to an irregular cycle, or it could be something more serious that requires medical attention.

The average amount of blood loss during a period is 30-40ml. Menstrual bleeding is considered to be heavy when it is around 60-80ml or more in each cycle.

However, menstrual flow differs among individual women, so you are actually the best gauge of what is supposed to be normal or abnormal.

Here are 10 possible reasons for abnormal vaginal bleeding:

You could be pregnant

Spotting (spots of blood) during the first trimester of pregnancy is quite common.

According to the American Pregnancy Association, 20% of women spot during the first 12 weeks. Spotting in the early stages of pregnancy will appear lighter than your usual period.

Your obstetrician and gynaecologist (ob-gyn) will check whether you might be pregnant.

If you are already pregnant, abnormal bleeding could be a warning sign of pregnancy complications, such as an ectopic pregnancy or a miscarriage. You should see your ob-gyn immediately if this occurs.

You may have a sexually-transmitted disease (STD)

Bleeding after sex is usually a tell-tale sign of an STD like gonorrhoea, chlamydia, trichomoniasis or human papillomavirus (HPV).

These infections cause inflammation of the cervix, which can lead to bleeding.

Other symptoms of STDs include vaginal itching, pain or burning sensation while urinating, abnormal discharge, blisters or rashes on the vaginal area. Often, however, STDs may be present without any symptoms.

If you have any reason to suspect an STD, it's important to see your doctor or ob-gyn for a proper diagnosis and treatment. It may be embarrassing, but it's better than suffering the consequences of an untreated STD.

It's your medications

Some medications such as anticoagulants (blood thinners) that prevent blood from clotting may result in abnormal bleeding or unusually heavy periods.

You should also be cautious about taking supplements. Some supplements, like ginkgo biloba, also have blood-thinning properties and could affect your menstrual flow.

It's your birth control method

Birth control methods that contain oestrogen and progestin may cause irregular bleeding. One common method is the intrauterine device (IUD), which is a coil inserted into the uterus.

The copper IUD can cause heavier and longer periods, while the levonorgestrel-releasing IUD can cause some random bleeding (although your period will, conversely, become lighter).

Sometimes, it could also be due to the fact that the IUD has moved within the uterus – this will also cause discomfort.

Another type of birth control method, the etonogestrel/ethinyl oestradiol vaginal ring, can also cause some irregular bleeding due to its effect on hormone levels. Don't be afraid to ask your ob-gyn about it.

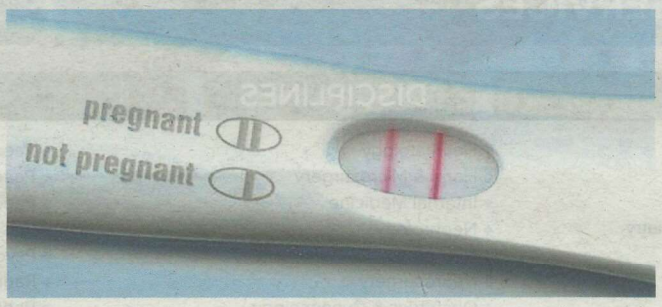
You have a thyroid problem

Thyroid problems are far more common among women than in men.

The thyroid is a gland that produces the thyroid hormones, which are crucial in regulating the body's metabolism, as well as the use of other hormones in the body.

Therefore, if the thyroid gland is not producing enough hormones, there will be a cascading effect on the rest of your hormones, which can lead to bleeding.

Birth control methods that contain oestrogen and progestin may cause irregular bleeding. — TNS



Spotting (spots of blood) during the first trimester of pregnancy is quite common. According to the American Pregnancy Association, one in five women spot during the first 12 weeks. — Wikimedia Commons

If the thyroid gland is not producing enough hormones, there will be a cascading effect on the rest of your hormones, which can lead to bleeding. — TNS

You suffered some trauma

Sexual intercourse can cause some trauma if it was a little rough or there wasn't enough vaginal lubrication. This can cause a little tear just outside the opening to your vagina, which can lead to some minor bleeding.

If the injury heals by itself, there should be no need for medical attention. However, you should talk to your partner to prevent this from occurring again.

You have polycystic ovary syndrome (PCOS)

PCOS is a condition where a woman has excessive levels of the hormone testosterone.

Testosterone can disrupt the function of oestrogen and cause problems to the menstrual cycle.

Women with PCOS suffer from bleeding symptoms like heavy periods, and skipped or irregular periods.

You have a growth (benign or malignant)

Abnormal bleeding could be a sign of a polyp or lesion in the genitals or reproductive system, such as ovarian cysts, cervicitis, endometritis, fibroids or other conditions like vaginal infections.

In the worst case scenario, abnormal bleeding could be due to pre-cancer or cancer of the vagina, cervix, uterus or ovaries.

See your ob-gyn to get it properly checked out. You should also ask your doctor about HPV vaccination, which can prevent a significant proportion of HPV infections that cause cervical cancer.

You are undergoing menopause

Menopause is characterised by dramatic hormonal changes in a woman's body.

During the transition period to menopause, women may experience abnormal bleeding.

You have a bleeding disorder

If you have a bleeding disorder (often an inherited disease), such as haemophilia, you would be aware that you are at high risk of excessive bleeding.

Unfortunately, prolonged vaginal bleeding is also one of the possible consequences of bleeding disorders.

The 10 possible causes listed in this article are meant to give you an idea that abnormal vaginal bleeding can be due to many reasons.

However, you should not use this list to diagnose yourself. It is important to seek proper medical advice, either from your general practitioner (GP) or your ob-gyn.

When you see your doctor, you will probably be asked about your menstrual cycle, sexual activity, birth control methods (if any), medications or supplements you are taking, history of problems with clotting or bleeding disorders, and history of operations and gynaecological procedures.

Your doctor may perform a physical examination, including a pelvic examination, to examine your vagina, cervix and uterus.

Other possible tests that may be required are blood tests, ultrasounds or a biopsy, if your symptoms and medical history indicate the need.

As women, we have a habit of dismissing our own health concerns to focus on those around us. We need to start looking at our own health. Thus, don't let any abnormal vaginal bleeding go undiagnosed and untreated. See a doctor today.

Datuk Dr Nor Ashikin Mokhtar is a consultant obstetrician and gynaecologist. For further information, visit www.primanora.com. **The information provided is for educational and communication purposes only and it should not be construed as personal medical advice. Information published in this article is not intended to replace, supplant or augment a consultation with a health professional regarding the reader's own medical care. *The Star* does not give any warranty on accuracy, completeness, functionality, usefulness or other assurances as to the content appearing in this column. *The Star* disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.**

I can't hear you

Yes, you can lose hearing in one ear – overnight.

By REVATHI MURUGAPPAN
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AUGUST 2, 2014, was just another ordinary day for J. Jay.

She woke up with all her senses intact, but after breakfast, she felt a window slam shut in one ear.

She thought it was a case of a blocked ear, but it was soon replaced with annoying loud sounds of huge waves, aeroplane engines and murmurings.

When her hearing didn't return after a few days, Jay went to the doctor, only to be told she had "beautiful ear drums". He did a hearing test, which revealed her left ear was 95% deaf.

"The doctor didn't imply the condition was permanent and put me on steroids. I assumed it would get better, but after three weeks, my hearing didn't come back.

"I saw different specialists and it finally hit me that I was deaf in one ear. The doctor said he would only be able to tell what was wrong if he cuts open my ears, but I'd have to be dead first!

"I was clueless how I was going to live. I lost focus, sounds were jumbled up and I didn't know where they were coming from.

"Since my ears are my tools of communication, I sank into depression. I was deaf, but I felt blind," shares the 38-year-old magazine editor, who was living abroad then.

Jay was diagnosed as having sudden sensorineural hearing loss, commonly known as sudden deafness or sudden hearing loss (SHL).

"We're not talking about being born deaf or losing hearing as a result of ageing. With SHL, you're fine today and when you get up in the morning, you cannot hear.

"Anyone can get it. There is no predisposing factor to say that you belong to a group that would get SHL. It affects only a small percentage of the population, so we have no figures anywhere in the world.

"This happens normally in one ear – rare that it happens in both ears. SHL doesn't recognise age or gender – you can be young, old or middle aged. Sometimes, a patient doesn't realise he has SHL unless he picks up the telephone. Because it only affects one ear, he may think the phone is dead," says consultant ear, nose and throat surgeon Datuk Dr Kuljit Singh.

'Anyone can get it. There is no predisposing factor to say that you belong to a group that would get SHL' says Dr Kuljit. — LOW LAY PHON/The Star

Hearing aids are an option if there is some hearing in the ear that is affected. — Filepic

Experts estimate that SHL strikes one person per 5,000 every year, typically adults in their 40s and 50s. The actual number of new cases every year could be much higher because the condition often goes undiagnosed. Many people recover quickly and never seek medical help.

According to the US-based National Institute on Deafness and Other Communication Disorders, only 10% to 15% of the people diagnosed with SHL have an identifiable cause.

The most common causes are infectious diseases, trauma such as a head injury, autoimmune diseases such as Cogan's syndrome, ototoxic drugs (drugs that harm the sensory cells in the inner ear), blood circulation problems, a tumour on the nerve that connects the ear to the brain, neurologic diseases such as multiple sclerosis, and disorders of the inner ear.

Dr Kuljit explains: "Actually some patients have no symptoms at all. Some have told us they had a very bad flu a few weeks prior; a few patients will say they feel dizzy and hear buzzing sounds in the ear, but most of them say, they get up and *pop!*, the hearing goes to zero.

"Scientists tell us one probable cause is upper respiratory viral infection, which settles on the nerves that connects the inner ear to the brain. The virus attacks the nerves.

"The nerves from our inner ear to the brain runs in a tight bony canal, and the canal gets filled up with fluid and is inflamed because of the virus."

If there is minimal hearing loss, then there is a chance it may come back after a couple of weeks, but if the hearing loss is bad, the prognosis will not improve.

Patients are usually subject to a series of hearing tests over a six-month period, after which it is unlikely that things will get better.

The results are charted on a graph to monitor if the hearing is getting better from week to week.

SHL is diagnosed if the test shows a loss of at least 30 decibels (a measure of sound) in three connected frequencies. A loss of 30 decibels would make conversational speech sound like a whisper.

"If the patient is stone deaf, then the chances of the hearing coming back to normal is not so good.

"When patients present to us, we do the test and treat them with medications, which are not 100% guaranteed.

"But first, we rule out tumours or mild stroke, though these patients would have other signs.

"The types of medicines vary from a short dosage of oral steroids to vitamins that are geared towards ear recovery," he says.

Patients are also checked for allergies, sinus infection, earwax plugging the ear canal, or other common conditions.

"Patients complain of feeling unbalanced and uncomfortable initially but they get used to it."

For Jay, because she had been an active person, her body remembered how to balance by default.

"But I still struggle to listen, and at the end of the day, I'm chronically fatigued," she says.

She cannot have group conversations because her good ear can only pick up one voice.

Her memory is also affected.

She says, "People think I'm 'off' as I might stare at someone who's finished talking because my mind is still trying to process things.

"I'm no longer the life of parties and I tend to avoid social situations. Going out alone scares me. Only my good friends know of my condition."

SHL cannot be prevented or predicted. "Some people say it happens if you hear too much loud music or go to rock concerts, but that's not true," says Dr Kuljit.

Most patients can cope quite well if it is only one ear, but if they have the misfortune of getting SHL in the other ear at some point, it's sheer bad luck.

They would then be classified as OKU (*Orang Kurang Upaya*, or Persons With Disabilities).

Patients can try hearing aids but if they're stone deaf, these won't work as the ear needs some cells to receive sound signals. There are also internally-implanted hearing aids, but they are expensive.

Unfortunately, Malaysia has no support group and people are very shy to talk about SHL. They don't want to share anything and label themselves as a "goner".

To maintain good hearing, Dr Kuljit advises people not to hear loud sounds for long periods of time as the ears have a certain threshold for sound.

He says, "Explosive sounds can damage the ears almost immediately; a sudden burst of 100 to 120 decibels can burst the eardrum. But, that is not the main thing – the shock that goes into the inner ear can fracture the hair cells and this cannot be regenerated.

"I also don't recommend using earphones for hours at high volume. If you're working in a loud area, the employer must give mufflers or ear protection aids. Also, while in the shooting range, don't take things lightly and say it's only once in a while. The bottom line is that prolonged high decibels will destroy your hearing."

Sudden hearing loss usually affects only one ear. — Filepic

Operation Eliminate Trans Fats

Health officials launch ambitious plan to rid the world of trans fats.

By MELISSA HEALY

IN an effort to save half a million lives each year, the World Health Organization (WHO) on Monday urged developing nations to follow the lead of affluent countries and eliminate man-made trans fatty acids from their food supplies.

By taking six specific steps, officials from the United Nations' health agency said countries could reduce a tidal wave of heart disease and strokes that results in more than 500,000 deaths annually.

"Trans fat is an unnecessary toxic chemical that kills, and there's no reason people around the world should continue to be exposed to it," said Dr Tom Frieden, the former director of the US Centers for Disease Control and Prevention (CDC) who now leads an initiative called "Resolve to Save Lives".

For the WHO to throw its weight behind a worldwide trans fat ban "is very helpful", and countries that follow its advice will see a substantial payoff in improved public health, said Dr Walter Willett, a professor of epidemiology and nutrition at Harvard University.

"The cost of transitioning to healthier fats is very small and the cost of treating cardiovascular disease is very high," said Dr Willett, who was among the first researchers to call out trans fats' dangers and led the effort to ban them.

Some trans fats occur naturally in dairy foods and meat from ruminant animals. These do not raise major health concerns.

Industrially-produced trans fats, on the other hand, have helped fuel an epidemic of cardiovascular disease since they were broadly introduced to the food supply in the 1950s.

These fats are made by adding hydrogen to vegetable oil, converting liquid fats to a solid at room temperature.

These "partially hydrogenated" oils made processed foods cheaper to produce while extending their shelf life, and they quickly became an ingredient in bakery and snack foods devoured across the world.

By the mid-1990s, scientists began to turn up evidence that consuming trans fatty acids throws blood cholesterol out of whack, raising levels of LDL (the bad kind) and reducing levels of HDL (the good kind).

Once public health researchers linked the growing use of industrial trans fats to rising US rates of heart disease, they spearheaded an effort to expunge the fats from the American diet.

By next month, food manufacturers supplying US consumers are expected to have reformulated their products to drive down trans fats to negligible levels. That process has taken five years, and has met with only muted resistance from large food manufacturers.

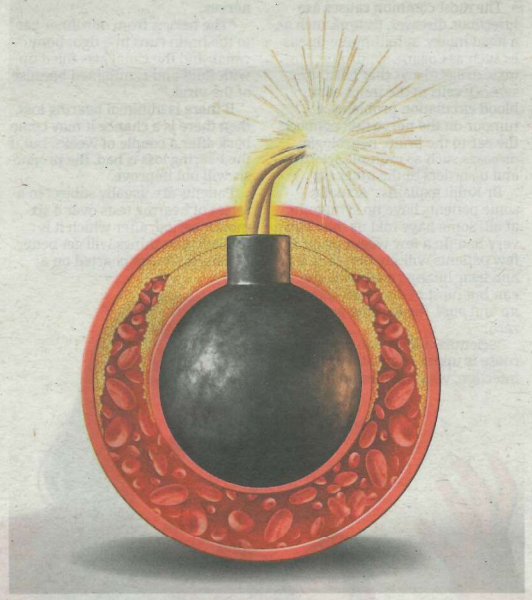
The US Food and Drug Administration (FDA) has estimated that reducing trans fat in the US diet could prevent as many as 20,000 heart attacks and 7,000 deaths from heart disease each year.

That's in line with studies that measured the impact of trans fat limits in Denmark and the US.

A 2016 study of New York City's ban found that restricting the industrially-produced fats drove down cardiovascular deaths by 4.5% and produced annual savings of US$3.9mil (RM15.42mil) per 100,000 people.

But as wealthy countries have acted to expunge trans fats from their citizens' diets, the ill effects have shifted to countries that rely heavily on trans fats to deliver inexpensive processed foods to their growing middle classes.

The WHO is launching a plan to help the world cut back on trans fats. — TNS



Industrially-produced trans fats have helped fuel an epidemic of cardiovascular disease since they were broadly introduced to the food supply in the 1950s. — 123rf.com

> **Five years ago, evidence was strong that trans fat had deleterious impacts on blood lipids; ensuing studies have confirmed these metabolic findings and strengthened epidemiologic support for an important adverse effect on risk of coronary heart disease. These data highlight the need for rapid implementation of labeling requirements that include fast foods. Because partially hydrogenated fats can be eliminated from the food supply by changes in processing that do not require major efforts in education and behavioural modification, these changes would be an extremely efficient and rapid method for substantially reducing rates of coronary disease.**
>
> Harvard School of Public Health

The WHO initiative launched Monday, dubbed REPLACE, outlines a sequence of actions that countries should take to reduce trans fatty acids in their food supplies.

It calls on governments to work with legislatures, non-governmental organisations, oil and food manufacturers, and their citizens to enact measures that mandate the replacement of industrially-produced trans fats with healthier fats and oils.

New York University food scientist Marion Nestle praised the initiative as one that will help consumers make healthier decisions without taxing their willpower.

"It's a change in the food environment that's likely to have a significant impact on public health and does not require significant behaviour change," she said.

"That's what you want, because behaviour change is difficult."

The fact that developed countries have been able to reduce trans fat shows that it is technically and politically possible, added William J. McCarthy, a professor at the University of California, Los Angeles' Fielding School of Public Health.

"The problem in poorer countries is that there isn't as much surveillance and government oversight of the food supply, and in their absence, you find the small-time vendors much prefer the use of these particular hydrogenated fats," he said.

The profit motive is going to favour their use until there's enough political will to intervene.

"Just as with control of tobacco products, it takes money, resources and political will to enforce regulations that a lot of food vendors would prefer not to have."

The WHO has held up two countries – Iran and South Africa – as models for other low- and middle-income nations to follow.

In 2008, South Africa became the first developing country to enact legislation against trans fatty acids, setting a limit on the trans fat content of oils and fats for human consumption of 2 grams per 100 grams.

Experts said it worked because it did not target big food companies, but the manufacturers of industrial fats, a consolidated industry with few players.

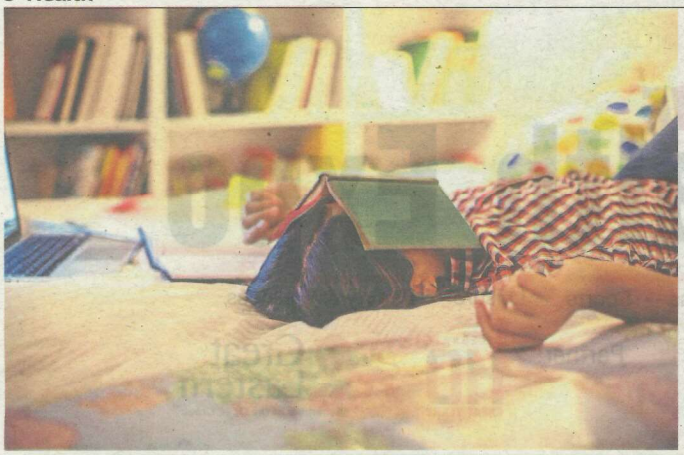
Another success story is Iran, a country with the highest recorded intake of trans fats in the world.

Starting in 2005, Iran's government collaborated with oil manufacturers, oil importers and non-governmental organisations to reduce trans fats.

The government first mandated that the cap on trans fats in corn oil, palm oil, frying oil and mixed liquid oils be cut in half, from 20% to 10%.

In 2011, the government continued reducing allowable trans fat content, and has now met its 2018 goal of no more than 1% trans fat content in those oils.

Reducing trans fat in bakery products, still allowed at 5%, remains a challenge for the country to tackle. – Los Angeles Times/Tribune News Service



To improve sleep, you can try to practise a relaxing bedtime ritual, such as reading or meditation. — AFP

A newborn baby should be spending 15 to 18 hours asleep. — TNS

Tell Me About...

Dr Y. L. M

I want good quality sleep!

Healthy sleep habits can improve your ability to fall asleep and stay asleep.

I RECENTLY read a lot of articles about how certain things can disrupt my sleep quality. For example, there was this study that I read in UK's *The Daily Mail* that suggests that two glasses of wine can reduce my sleep quality by 40%.

The study that you are talking about was carried out in Finland on over 4,000 men and women.

The study participants all wore heart rate monitors when they slept, and the quality of their sleep was recorded during the first three hours.

It was found that just two drinks in women and three in men reduced quality of sleep by as much as 39.2%.

The reason is hypothesised to be that alcohol causes people to spend more time in REM (Rapid Eye Movement) sleep in which dreams occur, and less time in the deep, restful sleep without dreams.

Wait. What is good quality sleep in the first place?

These are the indicators of good quality sleep as released by the US National Sleep Foundation (NSF):

- More sleep time on the bed (at least 85% of the total time).
- Falling asleep in 30 minutes or less.
- Waking up no more than once per night.
- Being awake for 20 minutes or less after initially falling asleep.

Apparently, the NSF found that 27% of all people are taking longer than average (meaning 30 minutes) to fall asleep.

So, if you ever envied your husband for falling asleep immediately, and spent your time tossing and turning with thoughts about the family tumbling in your head, know that you are not alone.

Do sleep patterns vary as we age?

Definitely.

Let's examine a newborn baby's sleep patterns. A newborn is considered to be aged up to three months. A newborn baby should be spending 15 to 18 hours asleep.

Then you get to the infant stage (four to 11 months).

He or she should fall asleep in less than 30 minutes when you put him or her into bed, and should spend 12 to 15 hours sleeping.

Then you get to the toddler stage (one to two years). The toddler should also fall asleep in less than 30 minutes after you put him in bed, whether or not you are telling a bedtime story. He should spend 12 hours sleeping. That's why it's important that you don't make toddlers follow your sleep times.

When we get to preschool children (three to five years), they need 10 to 13 hours of sleep.

Children aged six to 13 years need nine to 11 hours, and teenagers need eight to 10 hours.

You can deviate from this by one or two hours less or more, but too much deviation is generally not recommended.

What about us adults?

Adults from age 18 to 65 need seven to nine hours a night. If you are above age 65, you need seven to eight hours.

So those myths about old people only needing to sleep five or six hours a night are not to be believed.

Why is having good sleep so important?

Sleep is a vital indicator of our overall health and wellbeing. Don't forget that we spend one-third of our lives sleeping.

Unfortunately, our world today is so filled with electronic equipment, artificial light and so much entertainment at night that we don't make sleep a priority anymore, or we think we can do with less.

Worse yet, during our sleep, we have the Internet on and our phones on, and we sometimes drink coffee in the evenings. All these interfere with our sleep patterns.

As an adult, you are recommended to get between seven and nine hours of sleep. The question is then seven or nine?

Only you can make that assessment. Do you feel happy, well-rested and productive on seven hours of sleep? Or do you need nine?

If you feel dopey and you're nodding off during the afternoon on seven hours of sleep, then your body definitely needs more sleep.

How do I improve my sleep quality?

You have to make sleep a non-negotiable priority. Yes, sometimes it is impossible when you have a baby or toddler to take care of, but those babies grow up and you can return to your normal patterns of sleep, especially when you insist that they sleep their required durations!

Do follow these cardinal sleep tips:

- Stick to a proper sleep schedule, even on weekends.
- Practise a relaxing bedtime ritual, such as reading or meditation.
- Do daily exercise, but not within three to four hours before bedtime.
- Make sure your bedroom has the right temperature.

Some people advocate 18°C as the right temperature for your body to cool down.

- Turn off your phone and Internet. Keep your room dark.
- Don't drink alcohol or coffee at night.

Some people who have trouble sleeping don't even drink alcohol or coffee at all.

If you have spent time tossing and turning with endless thoughts tumbling in your head, know that you are not alone. — AFP

Dr YLM graduated as a medical doctor, and has been writing for many years on various subjects such as medicine, health, computers and entertainment. For further information, e-mail starhealth@thestar.com.my. **The information contained in this column is for general educational purposes only. Neither *The Star* nor the author gives any warranty on accuracy, completeness, functionality, usefulness or other assurances as to such information. *The Star* and the author disclaim all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.**

Eggs for your heart

A study claims that an egg a day may keep the doctor away.

Chinese adults who ate an egg every day were found to have a lower risk of cardiovascular disease in a recent study. — AFP

FOR decades, experts warned that eating eggs raises levels of unhealthy cholesterol.

But a study published on Tuesday said an egg a day may actually reduce the risk of heart disease and stroke.

While outside experts cautioned against reading too much into the study, its authors claimed that Chinese adults who ate an egg every day had a lower risk of cardiovascular disease (CVD).

Studying half-a-million healthy adults aged 30 to 79 over almost nine years, researchers concluded that "compared with non-consumers, daily egg consumption was associated with lower risk of CVD".

Risk of haemorrhagic stroke was 26% lower among egg-eaters, the Chinese-British research team reported in the journal *Heart*.

And daily egg consumption was associated with an 18% lower risk of death from CVD and a 28% lower risk of death from haemorrhagic stroke.

CVD, a group of disorders of the heart and blood vessels, is the leading cause of death and disability worldwide, including in China.

According to the World Health Organization (WHO), about 17.7 million people die of CVDs each year, almost a third of all deaths worldwide.

Eighty percent of CVD deaths are caused by heart attacks and strokes.

Smoking, not exercising enough, and eating an unhealthy diet high in salt and low in fresh fruit and vegetables, increase the risk.

Eggs are rich in dietary cholesterol, long linked to a higher CVD risk, but also contain crucial protein and vitamins.

In the study group, 13% reported daily egg consumption, while 9% said they never or hardly ever ate them.

By the end of the study period, almost 84,000 cases of CVD and 10,000 CVD deaths were recorded, and compared among the different egg-intake groups.

"The present study finds that there is an association between moderate level of egg consumption (up to one egg per day) and a lower cardiac event rate," the authors concluded.

But experts not involved in the study, said the results fail to prove that eating eggs actively lowers CVD risk.

"An important limitation of this present study is that the people who consumed eggs regularly were much more affluent than those who avoided them," University College of London nutrition specialist Tom Sanders said.

"Indeed, rates of stroke have been falling in Japan, Australia, North America and Europe for several decades for reasons that remain uncertain, but may be related to increasing affluence," he said via the Science Media Centre in London, Britain.

According to cardiology expert Dr Gavin Sandercock of the University of Essex, Britain, "to say that eating eggs is good (or bad) for you based on a study like this would be foolish as diet is much more complicated than picking on one foodstuff like eggs".

A second paper published in *Heart* found that people who commute to work by walking or cycling had a risk of heart disease and stroke 11% lower than those who take the car.

Their risk of dying from CVD diseases was almost a third lower, found the seven-year study of more than 350,000 people in Britain. – AFP Relaxnews

Autism and eating fish not linked

Pregnant mothers can eat fish in peace as a study finds no link between the mercury levels found in fish and children with autism. — AFP

A NEW British study has found that eating fish during pregnancy is not linked to autism or autistic traits in children, despite fears that exposure to mercury, which can be found in fish, could be responsible for the condition.

Carried out by researchers at the University of Bristol, the study looked at whether prenatal exposure to mercury in the first half of pregnancy is associated with the risk of autism or extreme levels of autistic traits.

Mercury has been thought to be a major cause of autism in the past, in particular, through the use of vaccinations that contain thiomersal, a source of mercury.

The new research is the largest longitudinal study to date to have tested the hypothesis and the only one to have looked at exposure in early pregnancy.

For the study, the team gathered data from nearly 4,500 women who took part in the British study, Children of the 90s.

The researchers looked at blood samples, the women's reported fish consumption, and information on autism and autistic traits, and found that there were no links between levels of mercury in the mothers and autism or autistic traits in their children.

"Our findings further endorse the safety of eating fish during pregnancy.

"Importantly, we've found no evidence at all to support claims that mercury is involved in the development of autism or autistic traits," said lead author and founder of the Children of the 90s study Professor Jean Golding.

"This adds to a body of work that endorses the eating of fish during pregnancy for a good nutritional start to life with at least two fish meals a week."

"All species of fish contain traces of mercury, which can harm brain development, but we've found that the health benefits of fish, probably from nutrients such as vitamin D, omega-3 fatty acids, selenium and iodine, outweigh the risks from mercury," added co-author Dr Caroline Taylor.

Britain's National Autistic Society's Centre for Autism director Carol Povey also commented on the findings, saying: "At The National Autistic Society, we welcome all research which furthers our understanding of autism.

"This is a robust study which confirms what previous research has found – it is a myth that high mercury levels in pregnant mothers cause autism.

"Although the exact causes of autism are still not fully understood, research to date has shown it involves many complex and interacting factors, including genetics, the environment and the development of the brain.

"While it is important to understand the causes of autism, we believe more research should be focused on what helps autistic people and their families, so that all autistic people can have a good quality of life and get the support and understanding they need."

The results can be found published online in the journal *Molecular Autism*. – AFP Relaxnews

Are you *really* hungry?

This very image of chocolate may make you feel peckish. And yet, it's more likely that the brain is being tricked into thinking the body is hungry. — dpa

WE'VE all had the experience: You polished off your "emergency" chocolate bar just a short while ago, but already feel hunger pangs again.

Is it possible?

Sure it is. But you shouldn't pay attention to the pangs.

The sensation of hunger is essential for survival. When your stomach is empty and blood sugar levels low, your brain calls for food – which is as it should be, because you really do need an energy refill.

The problem is that the brain can be easily tricked into thinking the body is hungry, by images of food, for example, says Birgit Christiane Zyriax, a nutrition specialist at Hamburg-Eppendorf University Medical Centre in Germany.

"Seeing food whets our appetite, which is hardly distinguishable from hunger," she notes.

Another problem is that blood sugar levels can be manipulated.

When we eat something, the body secretes insulin in two steps: at first just a little, and then a lot more in preparation for the main course, so to speak.

Insulin allows glucose, or sugar, from food to pass from the bloodstream into tissues, thereby lowering blood sugar levels.

When you eat a chocolate bar, your body secretes a very high amount of insulin.

But the few bites it takes to eat it are followed by... nothing.

Your blood sugar levels subsequently plummet, making you feel even hungrier, although you don't need any more calories for now.

It's important to know that a healthy person manages quite well without food for a good while.

"From a medical standpoint, the body isn't in fasting mode until eight to 10 hours after the last intake of food.

"But hardly anyone can wait that long anymore," Zyriax says.

If you can't help snacking, you should at least eat right.

Zyriax recommends crudites – mixed raw vegetables – with a curd cheese or yoghurt, together with some oatmeal and fruit.

This will supply the body with energy while keeping blood sugar levels fairly stable.

Ideally, you won't be hungry again until your stomach is empty. – dpa

Positive parenting

Newborn skin problems

Here are six common skin rashes that can affect your newborn child.

Story and photos by
Dr SABEERA BEGUM

THE skin of newborns (aged 0-30 days) undergoes a variety of changes in the first month of life.

Their skin is more sensitive than adults, making them prone to develop different types of rashes.

Most newborn rashes are normal physiological adaptations of the delicate newborn skin to new environments.

Fortunately, they are usually self-limiting (i.e. will disappear on their own) or harmless in nature, and do not require any specific treatment.

However, if the condition worsens or other serious symptoms appear, like fever or refusal of feeding, consult your paediatrician for a check-up.

Here are some common rashes that can develop in newborns.

Baby acne (neonatal acne)

Babies may develop small white/red pimples on their nose, cheeks and forehead.

These pimples may appear at birth or within a month of life, and usually clear up without any treatment.

They occur due to the effect of hormones transmitted from mother at the end of pregnancy.

Management: Wash baby's face with water and mild baby soap. Apply gentle moisturisers.

Do not use over-the-counter acne medicines or oily lotions.

Cradle cap (seborrhoeic dermatitis)

Babies may develop yellowish, greasy, flaky, dry skin on the scalp, neck, ears, eyebrows, armpits, and sometimes, at the diaper area, where it is known as diaper rash.

Cradle cap usually starts to occur as early as two weeks of life, and resolves at the latest by one year of life.

It is not caused by allergies or poor hygiene.

Some babies may develop eczema over the skin folds.

Management: Wash hair with water and mild baby shampoo.

May use mild baby oil to soak the scales before gently brushing them off while washing.

Erythema toxicum

These are small red blotches that appear mainly on the body, face and limbs.

They often appear at two to five days after birth and go away in a couple of weeks.

The cause is unknown. These rashes do not bother the baby.

Management: No specific treatment is needed.

Gentle washing with mild baby soap may be helpful.

Heat rash (miliaria)

Heat rashes are tiny red bumps appearing on any part of the body, but usually over the back, head and neck areas.

They occur due to partial blockage of sweat glands.

Hot and humid environments or excess clothing may aggravate heat rash.

Management: Keep the affected area dry.

Ensure that baby stays in a cool environment.

Dress baby in light breathable clothing.

Diaper rash

These are inflamed red rashes in the diaper area and commonly occur in babies under one year of age and/or those wearing diapers.

It is caused by prolonged exposure of the diaper area to the baby's urine/stool or yeast/bacterial infections due to infrequent or slow changing of diapers.

Management: Keep the diaper area dry and clean by changing diapers frequently.

Clean with water, pat dry and apply barrier ointment during every diaper change.

Consult your doctor if the rash persists.

The doctor may prescribe antifungal or antibiotic cream in the presence of any infection.

Neonatal sebaceous hyperplasia

These are tiny yellow papules or spots on the nose, cheeks and forehead.

They occur due to overgrowth of sebaceous glands (sebum-secreting glands), which are probably induced by hormones transmitted by mother during the pregnancy.

Usually appears in the first week of life.

Management: No treatment is needed. It will resolve within a few weeks.

Neonatal acne, also known as baby acne.

When to be concerned

The rashes above are usually harmless and will resolve spontaneously over few weeks without any treatment.

However, if any of the conditions become extensive or severe and prolonged, consult your child's paediatrician for a proper diagnosis and treatment.

Other skin rashes that may need you to consult your child's paediatrician include hives or wheals on the skin, which may indicate an allergic response, especially to food.

Your doctor can help to identify the allergens.

Also, rashes accompanied by other symptoms such as fever, pain, poor feeding or irritability, may be signs of skin infections like impetigo, or even other serious or fatal infections like meningitis.

Seborrhoeic dermatitis, or cradle cap.

Dr Sabeera Begum is a consultant paediatric dermatologist. This article is courtesy of the Malaysian Paediatric Association's Positive Parenting programme in collaboration with expert partners. For further information, please e-mail starhealth@thestar.com.my or visit www.mypositiveparenting.org.

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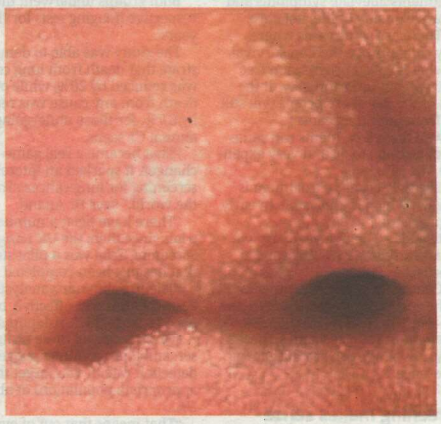
Erythema toxicum.

Miliaria, also known as heat rash.



Neonatal sebaceous hyperplasia.

Saving lives with screening

Instituting screening for those at high-risk of developing lung cancer can potentially save their lives.

By PAUL YEO
starhealth@thestar.com.my

THIS sounds alarmist, but the facts don't lie. The National Cancer Registry, published in Oct 2016 for the period of 2007-2011, revealed that over 100,000 cancers were diagnosed in Malaysia during that time.

Of these, 10,608 were new cases of lung cancer.

This means that on average, every year, 2,121 Malaysians were diagnosed with lung cancer during that time.

Overall, lung cancer is the joint number one cancer in men when it comes to incidence in Malaysia.

It accounts for 15.8% of all cancers in Malaysian men, only surpassed marginally by colorectal cancer, which has an incidence of 16.3%.

In women, it's the fifth most common cancer, accounting for about 5.6% of all cases.

It is the leading cause of cancer deaths in Malaysia, as well as across the world.

According to consultant cardiothoracic surgeon Dr Anand Sachithanandan, such data suggests the need for effective screening for lung cancer.

"The American College of Chest Physicians, the American Cancer Society and the American Association of Thoracic Surgery in the United States recommends screening for lung cancer," he notes.

"What we're dealing with is a very lethal and fairly common disease.

"The most common cause of cancer death in Malaysian men is lung cancer, almost one in four, which is just under 25%.

"In women, it's surpassed only by breast cancer – 13% of all cancer deaths in women are due to lung cancer.

"According to the National Cancer Registry, of these 10,608 cases of cancer, they had complete data in terms of staging in 55%-60% of cases.

"The most alarming thing is that with lung cancer, at the time of diagnosis, only 3% were in stage 1; 7% were in stage 2; 20%-25% in stage 3; and 65%-70% in stage 4.

"Put simply, 89% of Malaysian men and 91% of Malaysian women when diagnosed, were already in stage 3 or 4.

"This is advanced disease, either locally advanced or metastatic disease.

"Here, automatically, the goal of treatment shifts from trying to cure the patient to palliative treatment.

"While there has been a lot of advances in chemotherapy, immunotherapy and targeted therapy, the fact remains that most of these treatments alleviate symptoms and improve quality of life, not cure.

"There are some cases where they can improve median survival, or what is called progression free survival, but unfortunately, at the end of the day, these people will still die from their lung cancer.

"And these treatments can sometimes be quite toxic and very expensive," he says.

"The only curative treatment is surgery, which is applicable in early stage disease."

He adds: "The five-year survival for an early stage 1A lung cancer approaches 90%.

"Contrast that with the other end of the spectrum: stage 4B, where the five-year survival is less than 5%, and in most reported series, there's no survival. We can see the glaring difference."

Screening makes sense

Screening for lung cancer is not a new thing. Japan has been doing it for decades, traditionally with chest x-rays and sputum cytology.

However, as time went on, they realised that such tests were not very sensitive or cost-effective.

What changed the landscape was a North American study called the NLST (National Lung Screening Trial), which was published in the *New England Journal of Medicine* in 2011.

This was a multi-centred prospective randomised trial involving over 30 centres in North America and Canada that looked at over 50,000 people aged between 55 and 80.

The participants were all either smokers and ex-smokers with a minimum 30-pack year history (i.e. they have smoked at least one pack of cigarettes a day for 30 years), or ex-smokers who had stopped smoking within the last 15 years.

The trial randomised these people into two groups.

The participants in one group had an annual low dose CT (computed tomography) scan, while the participants in the other group had annual conventional chest x-rays.

Both groups underwent their respective imaging tests for three years.

The study was able to demonstrate that death from lung cancer was reduced by 20%, while overall death from any cause was reduced by 6.7%, for those undergoing the annual CT scans.

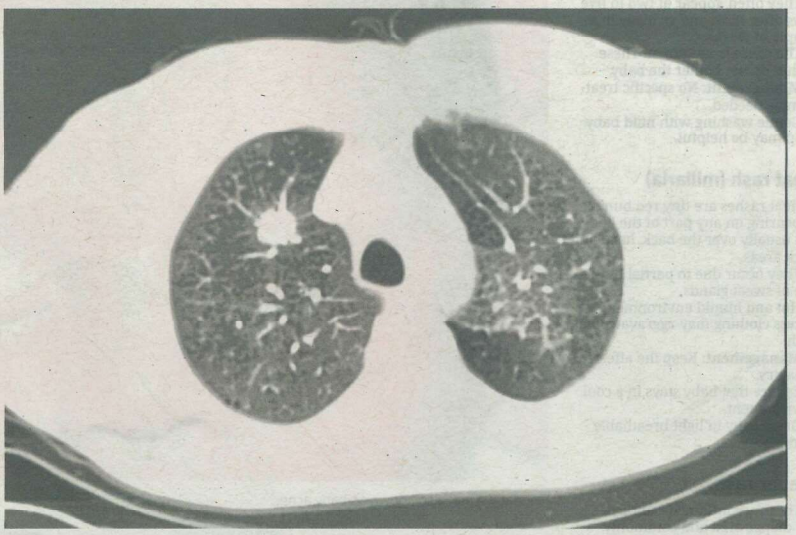
"That became a real game-changer. It sparked an interest in screening for lung cancer around the world," says Dr Anand.

"There have been a number of trials since then; the UK Lung Screening Trial was a pilot study that has just been completed.

"Their preliminary analysis suggests that it is cost-effective, but we need to target high-risk populations.

"On average, all these trials and screening programmes suggest a detection rate (if you target the appropriate population) of about 2%.

"That means that out of every 100 people we screen, we pick up two lung cancer cases, of which more than 85% are early stage and amenable for curative surgery."



Typical appearance of an early stage lung cancer (the white object in the left black field) detected by screening with a low dose CT scan.

According to Dr Anand, 85% of lung cancer cases picked up via regular screening of high-risk populations are potentially curable through surgery.

Targets for screening

Dr Anand notes that screening is a process and not an isolated test.

Screening attempts to detect the disease at a pre-clinical stage when the person does not have any symptoms.

Unfortunately, in lung cancer, by the time a patient develops symptoms – persistent cough, coughing up blood, unexplained loss of weight, shortness of breath, chest pain – they are more than likely to already be in an advanced stage of the disease.

So the challenge is to try and pick up the disease early via screening.

"What the UK Lung Screening Trial did was, they used longstanding data from the Liverpool Lung Project and they identified people who had at least a 5% or more risk of developing lung cancer in the next five years – male gender, smoking history, chronic lung disease like COPD, family history of early onset lung cancer (and) a personal history of cancer.

"The other study was the Nelson study, where they also looked at a similar population – 50- to 75-year-olds and smokers – and tried to see if screening could detect the cancers earlier, and ultimately, save lives.

"Our challenge is whether we can simply extrapolate such data and apply it here.

"Obviously, if we target the wrong population, it will not be cost-effective, and there are potential hazards – it could lead to patient anxiety, unnecessary tests, and specifically with screening, false positives.

"This is when a scan or test suggests disease when in actual fact, there isn't. This affects the specificity of the test.

"In the landmark study in North America, their false positive were quite high, around 23%.

"But the science and technology of screening has evolved quite a bit (since then).

"The European studies and subsequent ones used volumetric analysis – they looked at the nodule doubling time and were able to reduce significantly the false positive rate.

"In fact, their specificity was very high, something like 98%," says Dr Anand.

He explains that when a person goes for a scan, there can be three potential outcomes.

"Obviously, normal is good.

"At the other end of the spectrum is someone who has something that is quite abnormal, very suspicious; at the very least, they will need close surveillance. a follow-up scan at an interval to be decided (three or four months), or if it is more sinister, a biopsy or surgery may be suggested.

"The difficulty is the intermediate group, which does not have a perfectly normal scan, but it is not typical of a cancer.

"Here we need to monitor closely, and we are mindful of things like patient anxiety whilst they wait for a follow-up scan.

"Those things are very important in terms of who we target," he notes.

The scanning process

Dr Anand explains that low dose CT-scanning of the lung can often be done within five to 10 seconds.

It only takes the time of a single breath and no imaging contrast is required.

"A CT scan is basically x-ray beams being directed at the body that are detected by an electronic x-ray detector rotating around the patient.

"It's a form of ionising radiation and is linked to sophisticated software, which can reconstruct and create two-dimensional cross sectional views of the chest," he says.

A valid concern is radiation from the CT scan.

However, the low dose CT scans have been shown to have less than 90% of the ionising radiation of a conventional contrast CT scan.

"We are on the threshold of the next generation of ultra low dose CT scanners, where they can reduce the radiation dose to one-tenth of the existing low dose.

"It will end up almost similar to a chest x-ray," says Dr Anand.

"The Cosmos study looked at the risk of long-term radiation by following a population being screened for lung cancer with annual low dose CT scans over 10 years.

"They found that the risk of cancer was overall, exceptionally low – 0.05%, which is five out of 10,000 of those screened after 10 years of cumulative exposure.

"That study showed that for every 108 cancers that were detected early, one person may get radiation-induced cancer."

Nobody knows the optimum strategy when it comes to screening for lung cancer with low dose CT.

According to Dr Anand, "In the United States, they advocate annual screening until 75 or 80, or unless the person develops a co-morbidity that makes him or her a poor candidate for any definitive treatment.

"In the United Kingdom and Asia, we would probably be a bit more judicious.

"Because the scans are very sensitive, they can pick up something that's a biologically insignificant tumour, something that will not progress to cause the patient a problem in their lifetime.

"As clinicians, we are mindful of all of this. But we have to start somewhere."

This article is courtesy of Sunway Medical Centre.

The Doctor Says Dr Milton Lum
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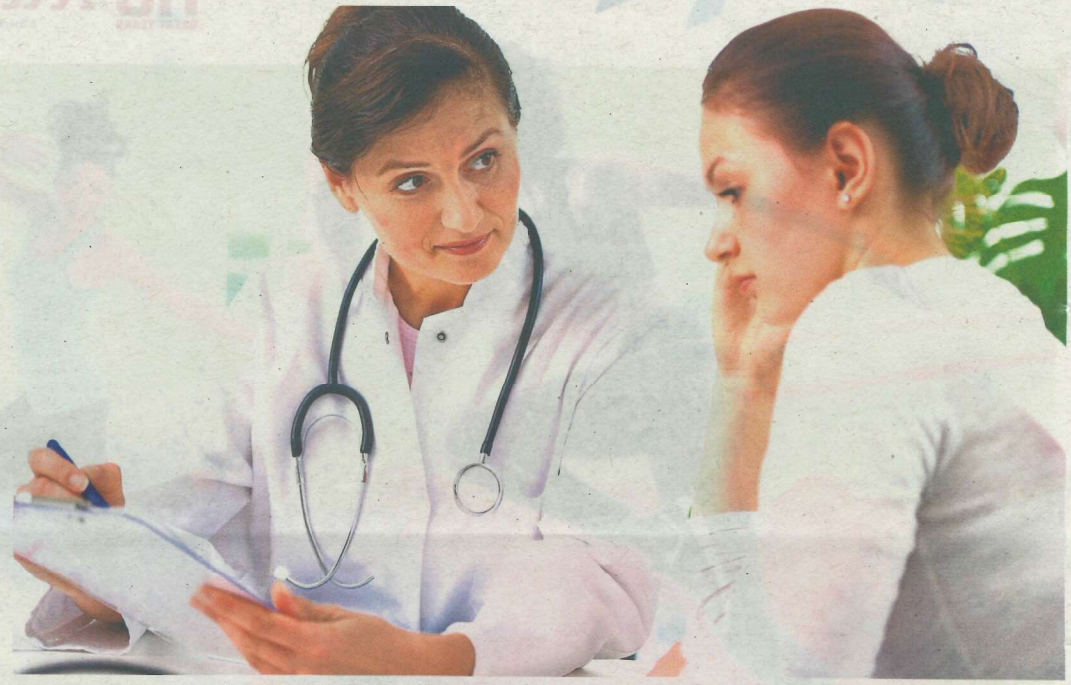
"What matters to you?"

Having personal conversations with patients in order to know what they want is becoming increasingly important in healthcare.



The development of genuine patient-doctor relationships for shared healthcare decision-making can lead to improved outcomes for patients. — TNS

THE healthcare environment today is different from that of a century ago when care and compassion were about all that could be provided to patients in almost all instances.

Technological advances in the last half-century, the growth of other healthcare professions, and specialisation in medicine, have increased diagnostic and treatment options, which have improved outcomes markedly.

However, it has also inadvertently led to the distancing of patients from their doctors and other healthcare professionals (HCPs).

This has resulted in patients and their families having to navigate their way through an increasingly complex healthcare system without much guidance.

There have also been perceived or actual exclusions from healthcare discussions, leaving many patients and their families with the feeling that they are kept in the dark about their healthcare.

All patients expect to be treated with compassion, dignity and respect in a clean, safe and efficient environment.

The Britain-based Picker Institute Europe summarised the characteristics of healthcare from the patient's perspective: respect for the patient's values, preferences and expressed needs; coordinated and integrated care; clear, high-quality information and education for the patient and family; physical comfort, including pain management; emotional support and alleviation of fear and anxiety; involvement of family members and friends as appropriate; continuity, including through care-site transitions; and access to care.

The routine engagement of patients and their families in healthcare decision-making is challenging.

The current barriers between patients, doctors and other HCPs have to be broken down.

Patients have to be educated on their role in decision-making and be provided tools to help their understanding of the diagnostic and treatment options, and in particular, the consequences of their decisions.

They have to be provided emotional support to enable them to make known their values and preferences, and not hesitate to ask questions of the attending doctors and other HCPs.

Doctors and other HCPs have to relinquish their paternalistic roles and become more effective partners of patients and their families in healthcare decision-making.

There is an increasing global emphasis on value-based and patient-centred models of healthcare.

Quality healthcare is effective, safe and provided in a way that the patient has the best possible experience.

Resetting the focus

The improvement of the patient's experience is the focus for an increasing number of healthcare facilities and professionals.

Doyle *et al*, in their 2012 literature review in the *British Medical Journal*, reported that there were "positive associations between patient experience, patient safety and clinical effectiveness for a wide range of disease areas, settings, outcome measures and study designs.

> **It is more important to know what sort of person has a disease than to know what sort of disease a person has.**
>
> Hippocrates (460BC - 375BC)

"It demonstrates positive associations between patient experience, and self-rated and objectively-measured health outcomes; adherence to recommended clinical practice and medication; preventive care (such as health-promoting behaviour, use of screening services and immunisation); and resource use (such as hospitalisation, length of stay and primary care visits).

"There is some evidence of positive associations between patient experience and measures of the technical quality of care and adverse events."

An ever-increasing number of doctors, other HCPs and healthcare facilities worldwide are resetting the focus of healthcare from "What is the matter?" to "What matters to you?".

Whilst the former is focused on the disease condition, the latter is focused on the person who is ill.

Conversations with, and understanding of, patients and their lives provide the foundations of treatment paths that will lead to improved outcomes.

The concept of "What matters to you?" is simple, yet profound.

It is essential to the establishment of deep, personal engagements with patients and their families, and provides doctors and other HCPs with an in-depth understanding of what really matters to them.

This inevitably leads to the development of genuine patient-doctor and other HCP partnerships for shared decision-making in healthcare.

Since the introduction of the concept in 2012, its acceptance and practice has spread globally.

There are reports of numerous examples of positive impacts when doctors and other HCPs inquire about what is really important to their patients.

Individual care plans and patients' relationships with their care providers have improved, and in some instances, health outcomes have also improved.

Many care delivery processes have been reorganised to make them more user-friendly.

The "What matters to you?" question can be asked in different ways.

National Health Service (NHS) Scotland National Clinical Director Jason Leitch put it concisely: "There is nothing more powerful than taking a moment to connect on a personal level.

"We all know what that feels like, yet in health and social care, we're not always as good at it as we think we are.

"We like to classify by heart rates, drug lists and disease.

"What if we took a moment to get to know patients, families and carers in a more meaningful way, and maybe even share something of ourselves too?

"My dad cares about country music more than his macular degeneration and my mum cares more about tennis than her flu vaccination.

"That instant human connection matters more than anything else.

"'What matters to you?' conversations are deceptively simple – some would argue overly simple – but they are a start.

"Try it, you might be surprised what you learn."

Talk to one another

The "What matters to you?" campaign started in Norway in 2014 with the goal of encouraging and supporting meaningful conversations between those who provide healthcare with the recipients of healthcare.

Since then, it has been taken up by an increasing number of countries, doctors, HCPs, healthcare facilities and patient advocacy organisations.

The 2018 global "What matters to you?" day will be on June 6.

Patients have to ask themselves two questions: Has a doctor and other HCPs ever asked you, "What matters to you?", and have you ever shared with a doctor and other HCPs what truly matters to you in your care?

Doctors and other HCPs are advised to encourage their colleagues, and patients and their families, to keep having these conversations every day of the year.

It is the hope that the "What matters to you?" day will be the catalyst.

As the Father of Medicine Hippocrates once said: "It is more important to know what sort of person has a disease than to know what sort of disease a person has."

Dr Milton Lum is a past president of the Federation of Private Medical Practitioners Associations and the Malaysian Medical Association. **The views expressed do not represent that of organisations that the writer is associated with. The information provided is for educational and communication purposes only and it should not be construed as personal medical advice. Information published in this article is not intended to replace, supplant or augment a consultation with a health professional regarding the reader's own medical care. *The Star* disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.**

By CATHERINE SIMON

A cure for 'vampire' disease

German doctors have tested a cure for a rare congenital disorder that causes children to exhibit symptoms similar to vampires.

Dr Schneider (in white coat) with the family that has three sons with XLHED, two of whom have been treated successfully. — dpa

DOCTORS in Germany have successfully tested a cure for a rare congenital disorder that makes people resemble vampires, with fang-like teeth and an aversion to sunlight.

The condition, known as hypohidrotic ectodermal dysplasia (HED), is characterised by impaired development of sweat glands, which can lead to life-threatening hyperthermia. That means exposure to direct sunlight that overheats the body is dangerous.

Other features of HED include missing and unusually pointed teeth, dry skin, and fine, sparse hair. Tear glands can be affected as well.

At the greatest risk of dying from the disorder are children under the age of two years in whom it goes undetected.

"They look like little vampires," says Dr Holm Schneider, senior physician in the Paediatric Department of Erlangen University Hospital (UKE) and spokesman for the Erlangen Centre for Ectodermal Dysplasias.

Foetuses with so-called X-linked hypohidrotic ectodermal dysplasia (XLHED), such as the twin boys who were successfully treated, lack a protein called ectodysplasin A1 (EDA1), which plays an important role in the development of teeth, hair and sweat glands.

About one in 30,000 children are affected – too few to pique the interest of the pharmaceutical industry to produce a medicine to treat it.

According to Dr Schneider, the mortality rate in Europe is between 2% and 20%.

In February 2016, he and Dr Florian Faschingbauer, senior physician in the UKE's Department of Obstetrics and Gynaecology, undertook what the university hospital says was the world's first attempt to cure the condition prenatally: by injecting the missing protein into the womb of a woman pregnant with twin boys.

The woman, now 40, has an older son, now five, who "didn't cry any tears", still had no teeth at age of two – he now has three pointy ones – and often felt hot, she says.

A genetic test revealed that she has the defect, whose effects are usually less pronounced in females, and had passed it on to her son.

"I cried all night" after learning the test result, she says.

When she later became pregnant with twin boys, an ultrasound scan of the foetuses showed that they too had XLHED, as they were largely missing dental germs, the embryonic structures that give rise to teeth.

So, she and her husband decided to take the "chance to make the children's lives easier" and try the new therapy.

In the 26th week of her pregnancy, the doctors injected 28 millilitres of the missing protein into the amniotic sac, and then 15ml in the 31st week.

The protein entered the foetuses' bloodstream via a certain receptor in their guts after they swallowed amniotic fluid, the doctors explain.

Now aged two, the boys can perspire normally.

The doctors examined the soles of their feet and palms of their hands with a microscope and found "they have just as many sweat pores as a control subject the same age", Dr Schneider says.

The therapy was also performed on another pregnant woman, who only received one injection however, because the EDA1 protein was no longer available.

Her son has a "somewhat lesser ability to perspire" than the twins", Dr Schneider says, "but it's sufficient at our latitude."

The doctors recently published their findings in *The New England Journal of Medicine*.

In earlier trials, they found that the therapy is effective only when performed before birth, since sweat glands form between the 20th and 30th week of pregnancy.

They say it could possibly be used for other congenital defects as well, such as cleft palate.

Dr Matthias Beckmann, head of the UKE's Department of Obstetrics and Gynaecology, points out that replacing a missing protein, rather than correcting a defective gene, is "certainly a simpler approach".

With the help of a non-profit foundation, the doctors plan to conduct a large clinical study next year aimed at securing approval for the new method of treatment.

Dr Amir Yazdi, spokesman for the Centre for Rare Skin Diseases at Tuebingen University Hospital in Germany, says it's still too early – and there have been too few patients – to tell whether the method has long-term side effects.

But he adds that he can hardly imagine any, since "no genes are modified". – dpa

Why our brains are big

New research suggests the reason why human brains grew more than those of other animals living in challenging environments. — AFP

THE human brain is disproportionately large. And while abundant grey matter confers certain intellectual advantages, sustaining a big brain is costly – consuming a fifth of energy in the human body.

It is an oddity that has long flummoxed scientists – while most organisms thrive with small brains, or none at all, the human species opted to sacrifice a degree of body growth for more cerebral capacity.

On Wednesday, researchers said they can finally reveal how and why this happened.

The human brain, they suggested, expanded mainly in response to environmental stresses that forced our species to come up with innovative solutions for food and shelter, and pass the lessons on to our offspring.

The finding challenges a popular theory that the thinking organ grew as social interactions between humans became more and more complex, a research duo wrote in the science journal *Nature*.

In fact, the inverse may be true.

"The findings are intriguing because they suggest that some aspects of social complexity are more likely to be consequences, rather than causes of our large brain size," said co-author Mauricio Gonzalez-Forero of the University of St Andrews in Scotland.

"The large human brain is more likely to stem from ecological problem-solving and cumulative culture than it is from social manoeuvering."

From our ape-like Australopithecus ancestors to modern *Homo sapiens*, the human brain has tripled in size.

But feeding such a big brain has been suggested to come at the cost of slow body growth in childhood, leaving our young dependent and vulnerable for longer than other animals.

Previous research found correlations between large brain size in species and complex social structures, living in challenging environments, and an ability to learn lessons from peers – also described as "culture".

But no studies have been able to conclude whether these factors are the cause of brain expansion, or the result of it.

With colleague Andy Gardner, Gonzalez-Forero developed a mathematical model to measure whether being confronted with ecological and social problems has a measurable impact on brain growth, and if yes, how much.

Model "brains" were presented with ecological challenges: for example, finding prey in bad weather or in tough terrain, preserving food to protect it against mold or heat spoilage, or storing water amid drought.

Social challenges were also introduced to test the influence on brain growth of cooperation and competition between individuals and groups.

Interestingly, cooperation was associated with a decrease in brain size, the researchers said, probably because it allows individuals to rely on each other's resources and to save energy by growing smaller brains themselves.

"We find that increasingly difficult ecological problems expand brains, but social demands fail to lead to human-sized brains," Gonzalez-Forero said.

But why did human brains grow more than those of other animals living in challenging environments?

Probably because of culture – the ability to learn skills from others, rather than having to figure everything out for ourselves.

"So, our results suggest that it is the interaction of hard ecology and culture that produced the human brain size," said Gonzalez-Forero. – AFP Relaxnews

Extra weight, extra risk

Overweight and obesity cause more than 15,000 cancer cases per year in Brazil.

By MARIA FERNANDA ZIEGLER

SOME 15,000 new cancer cases are diagnosed in Brazil each year, and researchers have found that approximately 4% of these cases could be avoided by reducing overweight and obesity.

The epidemiological study was conducted by scientists at the Preventive Medicine Department of the University of São Paulo's Medical School (FM-USP) in Brazil, in collaboration with colleagues at Harvard University in the United States.

It predicts that the number of new cancer cases attributable to overweight and obesity will double by 2025, reaching 29,000 cases or 4.6% of all new cancer cases in Brazil.

"The main problem is the rising prevalence of overweight and obesity in Brazil.

"Cancer cases attributable to these two conditions will also rise as a result.

"Aside from this, the total number of cancer cases is also expected to rise as the population grows and ages," said Leandro Rezende, a PhD student at FM-USP and the first author of the study published in the journal *Cancer Epidemiology*.

The paper, entitled "The increasing burden of cancer attributable to high body mass index in Brazil", describes the results of research funded by a scholarship from Agência Fapesp and completed at Harvard.

According to Rezende, the rise in income seen in Brazil in recent years has led to higher levels of consumption, including a preference for ultraprocessed foods.

"The study shows what this nutrition transition means in epidemiological terms," he said.

"Highly caloric foods, with high levels of sugar, salt and fat, are precisely the cheapest."

According to the World Health Organization (WHO), overweight and obesity are associated with a heightened risk of 14 types of cancer:

- Breast (postmenopausal)
- Colon
- Corpus uteri
- Gallbladder
- Kidney
- Liver
- Multiple myeloma
- Oesophagus (adenocarcinoma)
- Ovary
- Pancreas
- Prostate (advanced stage)
- Rectum
- Stomach/cardia, and
- Thyroid

These cancers account for about half of all cases of the disease diagnosed in Brazil each year.

The study, conducted by Rezende in collaboration with other researchers in Brazil and the US, quantified the contribution of body mass index (BMI) to cancer incidence in terms of population attributable fractions (PAFs), a measure of the proportional reduction in the disease that would occur if exposure to specific risk factors was eliminated.

According to the study, 3.8% of the more than 400,000 cancer cases diagnosed in Brazil each year are attributable to high BMI, with a higher burden in women (5.2%) than in men (2.6%).

The PAF is higher in women as they both have a higher average BMI than men and are disproportionately affected by ovarian, uterine and breast cancer.

To estimate overweight and obesity in the Brazilian population, the researchers used BMI data from the Brazilian Institute of Geography and Statistics's (IBGE) 2002 National Household Budget Survey and 2013 National Health Survey.

A ten-year lag is widely used in the scientific literature to account for latency in the development of cancer.

IBGE's surveys showed that approximately 40% of the population was overweight or obese in 2002.

The proportion had risen to approximately 60% in 2013.

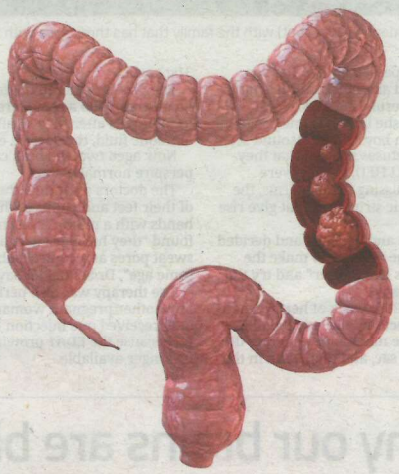
Taking into account BMI, relative risk, the number of cancer cases and latency, the authors estimated that approximately 10,000 cancer cases in women and 5,400 in men were attributable to high BMI based on measurements from ten years previously.

They obtained cancer incidence data from the Brazilian National Cancer Institute (INCA) and the WHO's Globocan database.

To quantify the contribution of overweight and obesity to cancer incidence in Brazil, the authors of the study estimated PAFs attributable to high BMI for 2012 (with existing data) and 2025 (using projections).

The fractions were calculated according to gender, age, geographic location and type of cancer.

This file combination photo shows obese people in (from left) Los Angeles, Mexico City and Manchester. Extra weight and obesity are associated with increased risk of 14 types of cancer. — AFP



Colon cancer is the most common cancer among Malaysian men and the second most common among malaysian women. Being overweight or obese increases the risk of developing this cancer.

Regional approach

The study is one of the first to regionally compare the link between obesity and cancer in Brazil.

According to the authors, the highest PAFs for all cancer types were found in the states of the South region (3.4% in women and 1.5% in men) and the Southeast region (3.3% in women and 1.5% in men).

In women, the highest PAFs were found in Rio Grande do Sul (3.8%), Rio de Janeiro State (3.4%) and São Paulo State (3.4%).

In men, the highest PAFs were found in Mato Grosso do Sul and São Paulo State (each 1.7%).

"BMI rose nationwide, but the impact of obesity was greater in the South and Southeast, especially São Paulo State, Rio de Janeiro State and Rio Grande do Sul, which are richer and have higher BMIs.

"However, there's no justification for limiting a strategy to prevent cancer and reduce obesity to these two regions," Rezende said.

According to the article, when the authors compared BMI data for 2013 with BMI data for 2002, they found a sharper increase in the North and Northeast than in other regions, which is why the strategy should not be limited.

"The data show precautions need to be taken in all regions, not just in the South and Southeast," Rezende said.

Public policy

For FM-USP Professor José Eluf Neto, principal investigator of the project, the point of estimating the link between cancer and obesity is to measure its impact on public health as a basis for action and investment planning.

"Today, we know there's a biological reason for the link. The molecular or metabolic mechanisms are well described.

"Take insulin, for example. Obesity causes insulin resistance, leading to inflammation and increased cell proliferation," he said.

According to the *Cancer Epidemiology* paper, sales of ultraprocessed food products rose 103% in Latin America between 2000 and 2013.

BMI rose sharply among adults in these countries during the same period.

For the authors, public health policies relating to taxation, nutritional labelling and restrictions on the marketing of ultraprocessed foods are necessary to reduce overweight and obesity at the population level.

"This growth in Latin American sales reflects the strategy pursued by the food industry, just like that of the tobacco industry," Rezende said.

"When countries introduce a minimal regulation to restrict the marketing of these foods, manufacturers target regions that lack a legal framework to promote better public health."

He said that the growth of ultraprocessed food consumption in Brazil is comparable to what happened with tobacco in the 1980s: "Smoking is mainly a problem in low-income and middle-income countries now because the tobacco industry is focusing on those countries.

"It's harder to do that in Brazil in 2018 because we have restrictions on advertising and smoking in closed public spaces has been banned.

"In the case of ultraprocessed foods, we're still back in the 1980s, as it were.

"They aren't marketed, labelled or taxed as they should be to protect people's health."

Mexico and Britain, for example, have started to tax sugar-sweetened beverages, Rezende noted.

The researchers are also working on estimates of the contribution made by other factors to cancer incidence and mortality, such as sedentarism, smoking, diet and alcohol consumption.

They have not yet published results for these factors, but they aim to estimate the proportion of cancer cases that can be considered avoidable in Brazil.

"There are genetic factors that increase the risk of developing cancer, but they can't be changed.

"Moreover, they don't exclude the other factors that cause the disease.

"Smoking is the main risk factor or cause of cancer in Brazil, [which is what] we expect our analysis to find, but it's falling significantly, with prevalence in about 15% of the population.

"Other factors are therefore becoming relevant to public policy-making.

"The data show that efforts to combat smoking can't be abandoned, but combating overweight and obesity must also be a priority," Rezende said. – Agência Fapesp