



# Is your back killing you?

Severe pain can not only affect your lifestyle, it may even cause your brain to shrink. True?

JANALIN TAN straightens out the facts.

**Y**ou know the feeling. You're stuck at your desk for hours on end. When you finally get up to grab a coffee, it hits you like lightning. Your back stiffens and aches for the next hour. The sharp pain seems to travel down your legs. It's killing you.

Don't sit it out – it's your back calling out for help, from years of abuse and poor posture. Thankfully, lots of studies have been done to show how you can avoid the problem and relieve it, because back pain is common: About one in five Singaporeans suffers from back and neck pain, according to a study done by The Back Society of Singapore.

## Office woes

Let's face it. No one is built to sit behind a desk punching at the keyboard for more than six hours a day. Sadly, it's one of the side effects of modern office work. And because more women than men take on such deskbound work, it puts us at greater risk.

A recent survey by the Singapore General Hospital (SGH) on the prevalence of work-related musculoskeletal disorder among office executives found that women (79 per cent) suffered the most from pain in the back, neck and shoulders compared to men (63.9 per cent). Apart from sedentary causes (lifestyle/work), doctors also cited situational (pregnancy, domestic work, childcare) and cyclical (menstrual cycles) reasons.

What are the dangers of leaving a bad back unattended?

"Pain, as a stressor, can affect the individual's ability to concentrate and also affect one's short-term memory," says Farzad Hafezi, registered physiotherapist at DBC Active Spine Care. These conditions cannot possibly be helpful to your work. Neglect your back further, and "chronic back pain can be debilitating, interfering with worklife and social life", warns Dr Chong Kian Chun, associate consultant at the Department of Orthopaedic Surgery of Changi General Hospital (CGH). "It also has psychological impact. Some patients end up with depression-like symptoms. This can be a cause of mental deterioration."

Even if you think the pain you feel is still not severe enough for immediate treatment, don't put it off for too long. MRI research conducted last year by Northwestern University in the US found that back pains lowered the subjects' IQ, and that chronic back pain shrank the brain by as much as 11 per cent – that's equivalent to 10 to 20 years of grey matter lost through normal ageing!

## Being a woman can be a pain

Women's work is just one reason we are prone to bad backs.

Let's start with our high heels. They don't call them "killer heels" for nothing. Tottering about on stilettos affects the lower back as it forces the upper body to arch backwards to prevent the person from falling forwards. This adds stress to the neck, shoulders, and upper and lower back. Considering that the average adult walks at least 20,000 steps a day, it's wise to alternate your heels with flats every other day.

Lugging a heavy handbag around will also stress

the lower back. Then there is another kind of load that is peculiar to women. The risk of back pain is higher in busty women because of the altered centre of gravity – as if she were carrying heavy bags every day. It's worse if the breasts are built on a small frame.

Take 20-year-old property agent Ada, for instance, who is petite and bosomy – a figure that is the envy of most women. But she has been suffering from middle back pain and muscle strain in her shoulder and neck for years. A visit to an orthopaedic specialist for postural advice and reconditioning exercises to improve the muscular support and stability of the lower back didn't help, as the pain came back. Eventually, she opted for breast reduction surgery.

Pregnancy brings its joys but also back pain in many women. In fact, for every three mums-to-be, two will experience it.

"As the uterus and abdomen enlarges, gravity causes the ballooning belly to sag downwards, causing a strain on the back muscles and ligaments," says Dr Joycelyn Wong, a gynaecologist at ACJ Women's Clinic at Thomson Medical Centre. "Because of hormonal changes, the ligaments tend to be more lax in pregnancy, making them more prone to injury."

Although most pregnancy-related backaches happen in the later trimesters, when the tummy is larger, some can occur earlier, at 20 weeks.

To keep backaches at bay, says Dr Wong, invest in a good maternity belt or support girdle; and sleep on the side or

with your knees bent with supporting pillows. For acute back-pain sufferers, there are pregnancy-safe painkillers, anti-muscle ache topical creams, physiotherapy, hotpacks or massages. When baby is here, maintain a good posture while breastfeeding, bathing or bending down.

For others like Rebecca, 32, who suffered from lower back pain during her pregnancy, she sought Core Concepts for help. The centre combines physiotherapy manual treatments and massages with core stability training that target the deepest layer of abdominal muscles.

To help Rebecca, core stability exercises strengthened her deep abdominal muscles to better support the spine. After delivery, she found that carrying her baby during breast-feeding forced her into a slouching posture and caused her neck muscles to strain. So she continued manual treatments (where physiotherapists work on the joint, nerve and spine) to relieve the tension and pain, and core stability exercises to prevent recurrence of chronic back pain. These were done two to three times a week.

"We work with clients who have weak innermost sets of core (abdominal) muscles or those who are unable to activate their muscles (like when you try to do a sit-up)," explains Sylvia Ho, senior physiotherapist at Core Concepts. "Our aim is to improve endurance, control and strength in the spinal column, shoulder blades and neck structure through gentle exercises which specifically target the core muscles."

## Straighten up and sit right

If your back is in good shape, try to keep it that way by maintaining good posture. →

**Back pain lowers the IQ and shrinks the brain by 11 per cent.**

"Poor posture is one of the major causes of musculoskeletal disorder... because of prolonged sitting at the desk, often hunched over a computer keyboard," affirms Dr Tan Seang Beng, head of the Department of Orthopaedic Surgery at SGH and president of The Back Society.

But you didn't know that sitting is worse than standing when it comes to putting stress on the spinal discs (which act as shock-absorbers of the spine)? That's why regular stretching breaks at work will help to relax the lower back and reduce lower back pain.

Why not just kick up your heels and lie back? In the 80s, it was believed that if somebody had back pain, she should stay away from all activity and have complete rest in bed. Today, "active rest" is encouraged. Continued physical therapy or physiotherapy such as documentation base care (DBC), core stability training and chiropractic medicine are commonly adopted as part of a patient's routine. All three are forms of physiotherapy and are non-invasive (read: no surgery). They all aim to encourage the body to heal itself by reconditioning and strengthening its back through rehabilitative exercises and devices.

DBC includes customised exercises and devices that look like gym machines to improve the patient's muscle function, endurance and tissue adaptation. Ligaments, tendons and muscles in the back are encouraged to grow stronger and will be able to tolerate repetitive and prolonged strain better, not to mention protect your back in case of an accident or trauma to the back.

## Seek treatment early

Back-pain sufferers not keen on exercising may consider chiropractic medicine. One of the oldest forms of natural healing practised in the US, chiropractic ensures that the nerves, bones, muscles and joints work in sync together. It works on the premise that spinal misalignment – where the spinal bone is improperly positioned or a spinal joint is improperly moved – can cause nerve pressure or irritation.

"Nerves travel from the spinal cord through openings on either side of the spine to get to all of your cells and organs," explains Dr Greg McRae, a chiropractor at Advanced Chiropractic. "The chiropractor's role is to locate the source of the nerve dysfunction, then correct or adjust the joints in the spine to lessen the pressure on the nerves and allow the nervous system to function normally." This is called "spinal manipulation", and can be aided by physiotherapy treatments such as electrotherapy or ultrasound.

In Traditional Chinese Medicine, lower back pain, also known as waist ache, is caused by the blockage of *chi* (internal energy) brought on by the imbalance of *yin* and *yang* (vital energies), such as over-exertion, emotional upheavals like depression and anger, over exposure to heat and cold, external injuries like sprains and insect bites, and eating the wrong foods. The waist is "house" to the kidneys, so pain in the area implies that something may be wrong with the kidneys.

Early diagnosis enables back pain to respond better to physical therapy and medication.

Dr McRae says: "Spinal problems, if left unchecked for a long time, can lead to many other problems in the



## Good back habits

### At the workplace

- **DO** lean back periodically with the back supported as this relieves pressure from the spine. Ensure that your chair has good back support and tilt.
- **DO** place your mouse and keyboard within comfortable reach. Ensure your computer monitor is at eye level and within an arm's length away.
- **DO** have a short break every 45 minutes to stretch and relieve muscle tension.
- **DON'T** sit at the edge of your chair or adopt a hunched-over position.

### At the wheel

- **DO** adjust the driver's seat such that the accelerator and brake pedals are not too far.

### When lifting heavy loads

- **DO** bend the knees to lower the body and straighten them as you lift the object off the ground. Don't bend your back at all.

### When lying down

- **DO** use a firm mattress and bend the knees by either placing one or two pillows below them or lie on your side.

body such as irritable bowel syndrome, dizziness, fatigue, headaches, asthma, and visual problems."

Says Dr Teh Peng Hooi, a consultant orthopaedic surgeon in private practice: "Those who come to me at a later stage already have unbearable pain and restrictive movement whereby they can't walk or get out of bed. They require medication, mostly painkillers and anti-inflammatory drugs to relieve the pain and spasm.

"Part of treating back pain is analysing where the pain is coming from by talking to the patient, physical examination, x-ray and physiotherapy. Surgery only comes as a last resort, like in cases that do not respond to medication, where there is extreme nerve damage caused by trauma such as fractures of the spine and rupture or tears of the spinal discs."

Why wait till things hit such a severe stage? "There is fear among back-pain sufferers," explains Hafezi, "so they avoid activity and choose to stay in bed. The individual must take the bull by the horns and do something about it, rather than lie down and wait for the problem to go away." **HW**