

Relieving 'tech neck' is simpler than we think

In the third part of The Physio Fix, a physiotherapist from Singapore General Hospital says the key to easing neck pain is to keep moving.



Sumiko Tan

Chief Columnist & Senior Editor, Publications

Why are simple things that are good for me so hard to do?

Changing out of a sweaty T-shirt after a walk so I don't catch a chill. Eating fruit for a more balanced diet. Moving my neck once in a while when I'm working at the computer so I don't get "tech neck".

These take almost no effort, yet I find them strangely difficult to do – and end up paying the price. My neck, for example, is constantly stiff and sore from the long hours I spend at the

computer, or slouched in bed scrolling on my phone without a break.

I suffer from "tech neck", a term to describe neck pain, stiffness and upper back discomfort caused by a prolonged forward-bending posture while using computers, smartphones and tablets.

Neck pain has become more common, says Associate Professor Joseph Thambiah, head of division and senior consultant at the University Spine Centre in the department of orthopaedic surgery at National University Hospital.

The most common cause, he says, is sedentary work at a computer. Age-related degeneration of the spine, known as cervical spondylosis, can make the pain worse.

Computer screens, especially laptops, are often not ergonomically positioned at eye level, he adds, and people work on them for long periods without taking a break. This places tremendous stress on the intervertebral discs and the joints at the back of the spine. "The muscles in the neck work overtime to keep the head supported," he explains.

To make matters worse, in between computer work, many people are hunched over their mobile phones for long periods. This increases the pressure on the discs in the neck and leads to muscle fatigue and pain. Over

time, the repeated strain can accelerate wear and tear in the discs and joints.

Those who work from home may be at greater risk because the tables and chairs they use for computer work are often not ergonomically designed, he adds.

Prof Thambiah says most of the neck pain cases he sees are posture-related, though age-related degeneration can also play a role in older adults. While there can be more sinister causes of neck pain, including cancer or infection, these are rare.

Patients with neck pain usually provide a history of their symptoms and undergo a physical examination along with an X-ray. MRI scans are often not required. Treatment is usually conservative, involving painkillers, anti-inflammatory medication and muscle relaxants. Patients may also be referred for physiotherapy.

Most cases respond well to such treatment. "The key thing for them to understand is that they ought to continue with their exercises even if there is no pain," he says. "Few of them go on to develop long-term disabling pain."

That said, there are signs that neck pain could be more serious. These include pain that disturbs sleep at night, pain or numbness radiating down the arms, weakness in the limbs, difficulty using chopsticks or buttoning shirts, and an unsteady gait. These symptoms could indicate that

nerves may be affected.

His No. 1 advice to patients? "Taking breaks from the computer every 20 to 30 minutes and doing the provided neck exercises is key," he says.

THE PHYSIO FIX

This is also advice physiotherapists cannot stress enough.

The single most powerful way to prevent tech neck is to take regular movement breaks every 30 minutes or so, says senior principal physiotherapist Philip Cheong from Singapore General Hospital.

"Don't stay in one position for too long," he says. "The key is regular movement and small adjustments. Take micro breaks." During these breaks, do simple exercises such as rotating your neck from left to right in a controlled movement, rolling your shoulders backwards, and shoulder shrugs.

Dr Cheong says that most of the

neck pain he sees is mechanical in nature, meaning that it is related to how joints, muscles and soft tissues are loaded over time.

The cause is usually multifactorial. Besides prolonged desk work and screen use, stress-related muscle tension, weak neck and upper back muscles, and poor sleep quality can all contribute. "In most cases, it is due to cumulative strain rather than a single incident," he says.

Tech neck develops when the head is held forward for prolonged periods, such as when looking down at a mobile device. This position increases the mechanical load on the cervical spine and surrounding muscles.

The average adult head weighs about 5kg. When it is positioned directly over the spine in a neutral posture, the muscles and joints of the neck support that load efficiently, notes Dr Cheong. But as the head tilts forward – known as neck flexion – the load on the neck increases. To counteract gravity, the neck muscles have to work much harder.

At about 60 degrees of flexion, a common angle when looking down at a phone, the load on the neck can reach around 27kg. "Over time, sustained loading can lead to stiffness, fatigue and pain," he says.

Posture alone, however, does not fully explain neck pain. "Lack of movement, not taking regular breaks and elevated stress or anxiety levels are also important contributing factors," he says.

This may explain why some people appear to escape tech neck despite spending long hours on their devices. Factors such as general physical condition, muscle endurance and stress levels can make a difference.

Children and teenagers, for instance, tend to recover more quickly, especially if they stay physically active and move around a lot. In older adults, neck pain

may occur more easily because muscles, tendons and joints may recover more slowly and tolerate sustained load less well.

Physiotherapy addresses both the physical and non-physical contributors to neck pain. This includes strengthening the muscles of the neck, shoulders and upper back, exercises to keep them mobile, and educating patients on ergonomics.

Managing stress is also key, Dr Cheong says.

When we are stressed or anxious, the sympathetic nervous system becomes more active and triggers the body's "fight-or-flight" response. This can make the neck and shoulder muscles stay slightly tense even when we are at rest.

"At the same time, people may adopt more guarded postures and reduce natural movement," he says. All these can contribute to neck discomfort or make symptoms worse.

Dr Cheong notes that shoulder, neck and upper back pain are highly interconnected.

"The neck does not function in isolation," he says. It relies heavily on the shoulder girdle and thoracic spine for support. Weakness or stiffness in the upper back and shoulder muscles often increases the load on the cervical spine. Strengthening these areas and improving mobility can frequently reduce neck strain.

As for whether there is an ideal way to hold your phone to prevent neck pain, Dr Cheong says that from a biomechanical point of view, bringing the phone closer to eye level reduces the force on the neck.

But this creates another problem – strain on the arms, shoulders and wrists.

"There really isn't a perfect way to look at our phones," he says. "The more important factor is not staying in one position for too long."

sumiko@sph.com.sg

4 exercises to relieve tech neck



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