

The Cutting Edge

Dr Tan Chong Tien is always in surgery, according to his secretary, and she is quite right. When he's not doing consultations, he manages five to seven spinal surgeries per week, each of which takes four to five hours. Dr Tan is a busy man, but considers answering questions about his field time well-spent.

"I see explaining and advising as part of my job. First, I find out what the real problem is by carefully obtaining a history and doing a thorough examination. Then I must explain to the patient the problem, the treatment options and the potential outcomes. I don't tell them, 'You must have an operation', unless it's absolutely necessary; I let patients make up their own minds."

Two of Dr Tan's treatments are new: **disc replacement** and **endoscopic disectomy**. To explain the latter, he picks up one of many plastic spinal moulds on his desk and points out nerves, blood vessels and

vertebrae. "It's just one small stab wound," he says while curving his finger between two of the bones. "We just put a scope, like a camera, in there, without cutting the muscles. It's a day surgery, whereas we used to have the patient in hospital for a couple of days."

His clinic is 'totally spine' he says, and there aren't many others like it. He attends conferences in the US and Europe to stay abreast of technology, and often lectures in other countries to share his knowledge; he has worked as a visiting professor in China and often takes fellows, other surgeons, under his wing for six months at a time to teach them the speciality.

The back problems he deals with are generally caused by degeneration, wear and tear or minor trauma. "Usually, they happen when people exert themselves doing something strenuous," he says. On the other hand, he occasionally gets called into the emergency room to operate on something serious such as fractures, dislocations, tumours or infections.

Another of his specialties is **scoliosis**, a common but difficult condition often diagnosed during adolescence.



Sometimes parents or relatives see telltale signs — a child's back seems uneven — or school screening will pick it up. They're often referred to the Institute of Health, where Dr Tan is a visiting consultant.

"Not many surgeons want to do this," he says. "It's very complex, but it's also rewarding. If you do the surgery well, the patients really get better."

As preventative medicine, Dr Tan recommends: "Use your back, don't abuse your back." He elaborates: "Take good care of your posture, and exercise regularly to strengthen the muscles. Runners

must wear good shoes and stick to good surfaces. If you feel lower-back pain, be careful and slow down."

by Erika Kelsey

Learn the Lingo

- **Disc replacement** - alternative to spinal fusion for chronic degenerative lower back pain
- **Endoscopic disectomy** - minimally invasive procedure for a herniated or ruptured disc
- **Herniated disk** - a disc in the spine tears or breaks open
- **Myelopathy** - disturbance or disease of the spinal cord
- **Sciatica** - pain, numbness or tingling along the nerve that radiates from the lower back to the back of the thigh
- **Scoliosis** - lateral (sideways) curvature of the spine
- **Slipped disc** - protrusion of part of the intervertebral disc through the fibro-cartilage