

“CONTRARY to what its name suggests, total knee replacement (TKR) is a procedure that does not replace the knee entirely but resurfaces the joints of the knee. It is commonly done to relieve pain caused by osteoarthritis, a degenerative disease that causes wearing of the knee joint cartilage it commonly effects the elderly,” says Dr Gandhi Nathan Solayar, consultant orthopaedic surgeon at Ara Damansara Medical Centre.

“However, it would be wrong to assume that TKR is only needed by the elderly, since it can also relieve pain caused by other kinds of arthritis which also affects young people, such as rheumatoid arthritis and traumatic arthritis caused by severe sports injuries or accidents.”

Having said that, not everybody with arthritis needs TKR. Dr Gandhi says a TKR is performed only as a last resort to relieve the patient’s pain and improve his quality of life, after exhausting all conservative methods such as medication, physiotherapy and weight loss.

“Even if X-rays show that a patient is suffering from extreme degeneration of the knee surface but it is not causing much discomfort or pain, we will suggest conservative treatment options instead of TKR.”

Bringing life back to degenerated joints

Going under the knife

What advice would Dr Gandhi give to anyone thinking of undergoing the procedure?

“An important part of TKR is counselling,” says Dr Gandhi. “The healthcare professional in charge of a patient should first discuss the procedure, risks involved, benefits and their medical history.”

Like every other kind of surgery, TKR also involves certain risks, however small. The main risks associated with this procedure includes developing an infection and blood clots. The risks may increase if someone already has medical issues such as hypertension, diabetes or cardiac problems.

Dr Gandhi says, “TKR surgeons need to

weigh the risks against the benefits for a particular patient before performing the procedure. It differs from case to case because each patient may have different sets of risks. Before going through with the procedure, doctors would first need to optimise their patients medically.”

Despite the risks, Dr Gandhi assures that TKR has a more than 95% success rate over five years and severe complications are rare.

The procedure takes between one and two hours, depending on how complex the surgery is, but according to Dr Gandhi, patients can usually start working their knees right afterwards.

“In most cases, the patient is encouraged to start walking as soon as possible to train the muscles and new joint,” he adds.

It would, of course, be painful to move the knee right after surgery, but the pain can be controlled with the help of medication.

“I strongly suggest engaging a physiotherapist during this stage to help rehabilitate the new joint. This is advisable because these are professionals who know how to work the joint properly and would be able to tell right away if there is something wrong, such as the knee not bending as much as it should,” adds Dr Gandhi.



Dr Gandhi Nathan Solayar.

the knee and to keep the place of incision clean to prevent infection.

He adds, “It is advisable that patients do not stay alone during this time and do not put undue pressure on the knee that has been operated on. It is good to work the joint, but one should not go overboard, such as starting to run immediately post operation, even if they are capable of doing so.”

He also mentions that while patients can perform all normal daily chores after the surgery, they should be wary of taking on heavy duty activities such as hiking.

“I always compare the replaced joints to tyres, which means if someone uses the new joint extensively, it will wear out faster and they then might need to undergo the surgery once again to replace the replaced joint.”

■ For more information call 03-5639 1212

Did you know?

- Patients undergoing TKR are usually anaesthetised in one of two ways: half-body anaesthesia, which is when the anaesthetic is injected into the spine and numbs only the bottom part of the body, and-full body anaesthesia, in which the patient takes in the anaesthetic with oxygen.
- This is one of the reasons why knowing the medical history of a patient before they perform the procedure is crucial for doctors, because someone with spine problems may be more suited for full-body anaesthesia, while someone with cardiac disease might be better off with a spinal anaesthetic.

- During counselling prior to the procedure, your healthcare professional might ask you to go for dental check-ups. But how is that related to your knee?
- Dr Gandhi Nathan Solayar, consultant orthopaedic surgeon at Ara Damansara Medical Centre, clarifies, “Some patients might have mouth infections (ulcers or bad dental caries) which they might not be aware of or do not consider important. However, these may increase the risk of infection post-TKR surgery. It is better to be safe than sorry, and so doctors need to ensure that a patient is as risk-free as possible before carrying out the procedure.”

How can women avoid osteoporosis?

OSTEOPOROSIS is the most common bone disorder to affect the elderly. It causes bones to become porous, soft and brittle. Consultant orthopaedic surgeon at ParkCity Medical Centre Dr Lee Chee Kuan says osteoporosis commonly affects women, especially post-menopausal women. Osteoporosis can also be caused by prolonged immobilisation, hormonal imbalance or reduced physical activity.

According to Dr Lee, osteoporosis does not present any symptoms, with the exception of when a bone breaks. He says, “Most of the time, the patient will not notice even when there is a minor crack or fracture in the bone and will only start experiencing pain when the injury becomes more serious.”

Too often, it is usually the pain that the patient experiences that brings them to see a doctor.



Dr Lee Chee Kuan.

absorption of calcium in the body.

Taking life into your hands

Prevention is still better than cure, so Dr Lee asserts that healthy living will curb the progress of osteoporosis. Studies have shown that between 30% and 40% of women aged 65 and above who have had proximal femur fractures will die within one to two years.

Dr Lee says, “These women did not die because of the fracture, but rather from the other complications that arose from said fracture, such as pneumonia and cardiac disorders. Therefore, it is better to avoid getting osteoporosis and prevent fractures to ensure a good quality of life.”

He advises people, especially women, to stay physically active, get enough vitamin D and maintain a high calcium diet, either through eating dairy or green vegetables.

While we cannot stop osteoporosis from happening, we can slow it down.

■ For more information call 03-5639 1212



Osteoporosis is a common bone disorder among the elderly, but the effects can be slowed down with light exercise and a healthy diet.

Do you have osteoporosis?

Because osteoporosis is a hard-to-detect condition, Dr Lee Chee Kuan, consultant orthopaedic surgeon at ParkCity Medical Centre, says that the best method to determine if you have osteoporosis is through a DEXA scan, which is a radiological procedure directed at the lumbar spine and proximal femur to scan the bone density of the patient.

He explains that the DEXA scan will produce two scores, the T-score and Z-score. The T-score compares your bone density to that of an average healthy 30-year-old adult, while the Z-score compares your bone density with the average score of people of your own age and gender.

He references the World Health Organization’s calculation of whether a

person has osteoporosis. “If the patient has a T-score of less than -2.5, he has osteoporosis. Scores of between -1.0 to -2.5 point to osteopenia, which is between the range of osteoporosis and normal bone. Your bone density is normal if it ranges from -1.1 and above.”

For the Z-score, he says that anything less than two standard deviations means the person has osteoporosis.

To ensure healthy bones and a good quality of life, Dr Lee recommends people undergo a DEXA scan either annually or once every two years.

If you are afflicted by osteoporosis, a healthy diet, adequate physical exercise and sunlight will slow down its progress, reducing the chances of a patient breaking a bone.