Kuching Specialist KPJ

Bone Frontier

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"After the surgery, I was totally pain free"

12 Key Facts About Knee Replacement Surgery

62-year-old man from Miri, had been playing golf competitively for 30 years — and hoped to keep going. Three years ago, however, the pain started in his right knee. He had undergone an MRI investigation which revealed torn meniscus and worn out cartilage at inner compartment of his right knee. An orthopedic surgeon repaired the torn cartilage, and — despite the doctor's warnings to slow down — Joseph kept playing and teaching golf full time. Three years later, he was back on the operating table, being prepped for a total knee replacement. 'I thought the pain would go away after a while. But it got worse and I could not walk without the aid of a stick which got stares from people.'

Apart from diseases, injury can also lead to the premature destruction of joints Hence, another worry is the growing group of people who are taking part in high-impact sports and putting their joints in danger. Such sports often involve running or jumping, which places tremendous stress on the ankle, knee and hip joints. When you walk, the impact on your joints is twice that of your weight. When you run, the impact is five times of your weight; when you sprint or jump, it is seven times. Accelerated wear and tear of the joints can cause people to develop osteoarthritis at a younger age, especially if the joint was previously damaged in an accident

by **Dr Lee Woo Guan,** Consultant Adult Reconstructive Orthopedic and Sports Surgeon

More and more patients are opting for knee replacement surgery earlier in life. The reason? Nowadays, pattients are more active than any previous generation — and want to run, dance and play basketball and, yes, tennis at the same level of intensity as they did in their 20s. Previously, knee replacement surgeries were reserved for very old patients who were severely crippled by osteoarthritis. "Now patients in their 40s and 50s are experiencing an earlier onset of osteoarthritis that affects their daily lives," says J. David Blaha, M.D., an orthopedic surgeon at the University of Michigan Health System. In fact, the number of boomers opting for early knee replacement is growing at a dramatic rate.

According to the American Academy of Orthopaedic Surgeons (AAOS), the total number of knee replacements performed each year, both total and partial, rose 30 percent from 2004 to 2008. In that same period, there was a whopping 61 percent increase in these surgeries among men and women ages 45 to 64. And that increase is expected to continue and even grow as boomers age. In 10 years, experts estimate, there could be as many as 3.2 million knee replacement surgeries each year, says Blaha.

What concerns orthopedic surgeons is that because joint replacements have been performed primarily on older patients, there isn't a lot of data to show how these implants hold up in younger people who will have them over longer periods of time.

"We use new and better materials and techniques, so we think there is an improvement in the longevity, but we still don't know. " says Rafael J. Sierra, M.D., an orthopedic surgeon at the Mayo Clinic. Younger knee replacement patients may need to get a new replacement in as little as 10 years, which is a concern. "It gets more complicated with each revision," says Michael R. Baumgaertner, M.D., professor of orthopedic surgery at Yale University School of Medicine. "Every time it has to be redone, there is more bone loss."

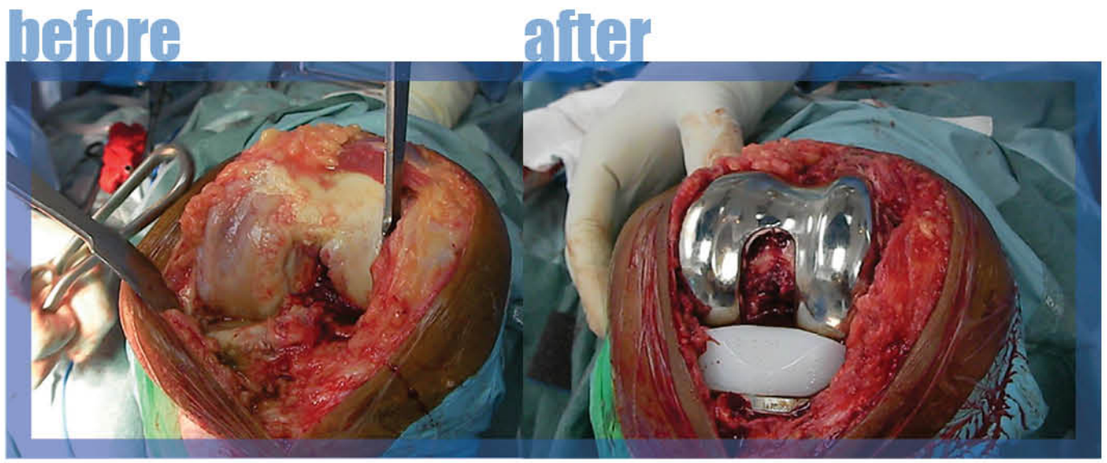
Still, researchers at the Center for Hip and Knee Surgery at St. Francis Hospital in Mooresville, Ind., report that total knee replacement patients demonstrated "remarkable" use of their knees 20 years after the surgery. The findings were presented last month at the annual convention of the AAOS.

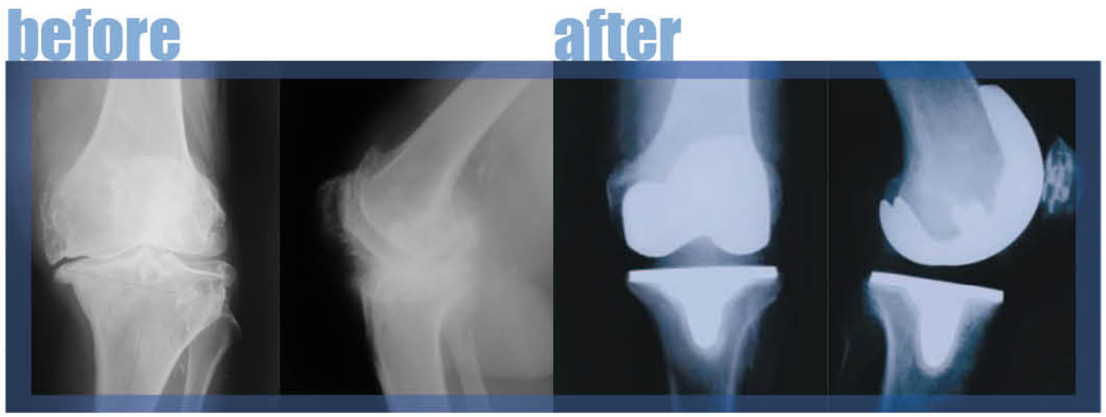
Most orthopedic surgeons recommend knee replacements only after all other options have been explored. These options include rest, pain medication, cortisone shots, physical therapy, weight loss and arthroscopic surgery. And some, mostly younger patients, may see good results with an osteotomy, surgery that shifts the alignment of the knees so that the weight-bearing part of the knee is moved away from diseased cartilage and onto healthier tissue.

Joseph knew he had reached the point where he needed a replacement when even standing became painful. He's glad he finally had the surgery. "I don't know if I'll get back to 100 percent on the court, but I do know my quality of life is back 100 percent. There is no throbbing pain, I can sleep and I can play and teach tennis. And I am getting better every day."

Total knee replacement BEFORE AND AFTER SURGERY

The cartilage that sits between the knee joint has worn out (main picture) due to ageing. Hence, bones rub against one another painfully. A total knee replacement surgery was performed to replace the damaged ends of the thigh and shin bone with prosthetic parts made from a metal alloy.





TWELVE KEY FACTS ABOUT KNEE REPLACEMENT

1 What it is.

Surgery to replace weight-bearing surfaces of a knee joint. The surgeon cuts away damaged bone, cartilage and one ligament, and replaces them with an artificial joint made of an alloy of cobalt, chrome or titanium, and a plastic compound called polyethylene. A total knee replacement replaces the entire joint; a partial knee replacement replaces only the damaged area. While a partial replacement can be done with minimally invasive surgery and has a speedier recovery time, only about 6 to 10 percent of patients are suitable candidates for this operation. Partial knee replacements work best where damage to the knees is only in a small area

2 Why have it.

To improve mobility and decrease pain caused by degenerative arthritis or injury to the knee joint. “I liken it to replacing a car tire when the treads wear out and getting a wheel realignment,” says Yale’s Baumgaertner.

3 Cost.

The charges of Total Knee Replacements including hospitalization of three to five days ranges from RM18,000 to RM20,000, for unilateral and RM 34,000 to RM 38,000 on both knees depends on the the number of days of hospitalization, type of room and specification of implants. Unicondylar knee replacement surgery, using the reputable Oxford mobile bearing partial knee,costs about RM 20,000.

4 Choose your surgeon and hospital wisely.

A 2004 study reported in the Journal of Bone and Joint Surgery found that patients operated on by surgeons who performed 50 or more knee replacements a year had a lower risk of complications than those whose surgeons performed 12 or fewer a year. Patients who went to hospitals where more than 200 procedures were performed a year also fared better than those who went to hospitals that did 25 or fewer a year.

5 Recovery.

The hospital stay is usually about three to four days after a total knee replacement operation; two days with a unicondylar knee replacement and five to seven days for bilateral total knee replacement. There is no cast, just a dressing covering the incision. After a total replacement you may need a short stay in a rehabilitation facility. And once at home you are going to need help. While recovery differs for everyone, expect to be uncomfortable for a week. When the discomfort subsides, start physical therapy. You’ll probably need about two months of physical therapy, and it’s critical — if you don’t do the work right away, you can’t catch up because the knee stiffens. After a partial replacement, expect two to four weeks of physical therapy.

6 Return to work.

Those with a desk job may be able to return in as little as two weeks. If your job involves heavy labor, you could be out for several months.

7 Be realistic about outcome.

A knee replacement improves quality of life by reducing pain and improving mobility. It is not designed to make you younger or allow you to do activities that add stress to the joint or risk added injury.

8 What rehab can I expect after discharge from the hospital?

Rehabilitation exercises will focus on recovering knee, quadriceps and whole-body strength: riding a stationary bike, straight leg raises with weights, and manual manipulation by the therapist to restore movement.

9 What happens if I don’t do all the exercises?

If you want to be able to do more than you did before surgery, you need to work very hard. If you don’t do the work, you will be pain-free but your function won’t improve. If you couldn’t walk up stairs before, you still won’t be able to afterward. If you follow the rehab regimen, you’ll regain whatever function you are going to get by six months to a year.

10 Am I going to have to give up my high demand sports activities?

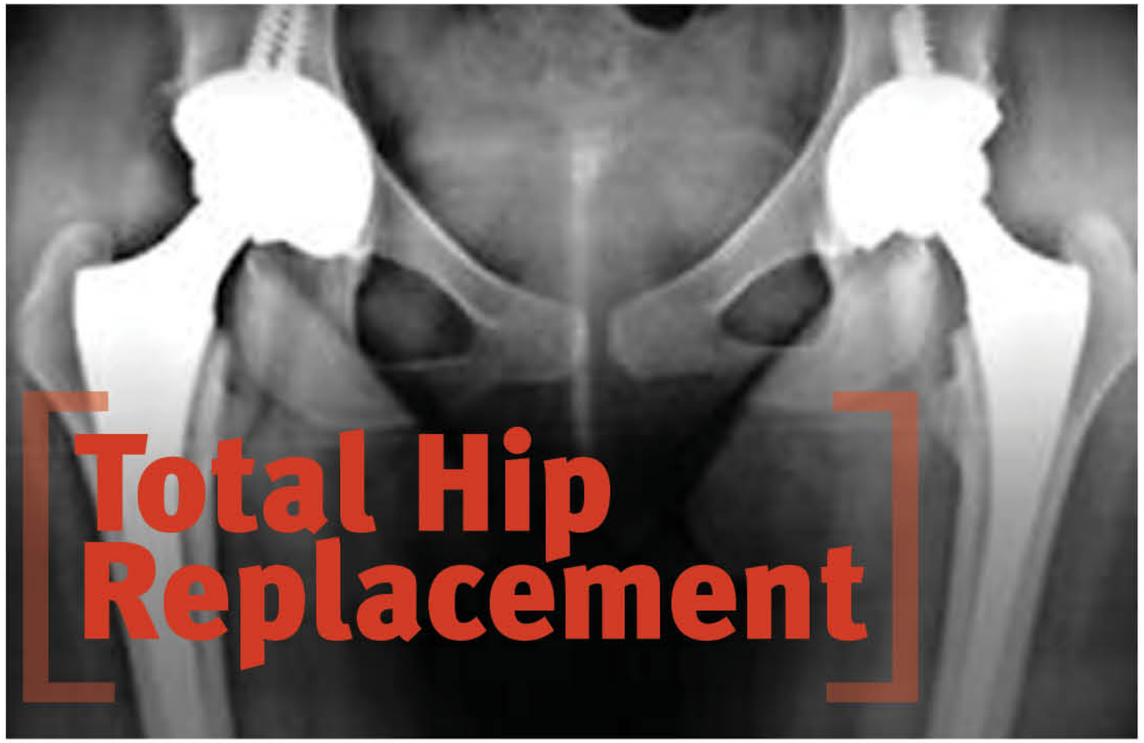
These decisions are made on a case-by-case basis. Ask your surgeon for her recommendations. The main concern is that high-impact exercise with a lot of pivoting will loosen the prosthesis, leading to revision surgery.

11 How long do prostheses last?

Unless you get an infection or have an accident, the longevity of the prosthesis is at least 15 to 20 years. If it’s going to fail, that usually happens within the first year — and first-year failure rate is less than 1 percent.

12 Do any of these recommendations change if you’ve had a partial replacement as opposed to a total replacement?

People who get the partials are usually very different patients. Typically, they are thin women in their 60s who want to stay very active. They are generally not disabled or overweight, and only have disease in one part of the knee, so they tend to be in better condition going into surgery. Rehab won’t need to be so vigorous.



Total Hip Replacement

Hip replacement is a procedure in which the surgeon removes damaged or diseased parts of the patient's hip joint and replaces them with new artificial parts. The artificial joint itself is called a prosthesis. Hip prostheses may be made of metal, ceramic, plastic, or various combinations of these materials.

by **Dr Lee Woo Guan,**
Consultant Adult Reconstructive Orthopedic and Sports Surgeon

Purpose

Hip arthroplasty has two primary purposes: pain relief and improved functioning of the hip joint.

Pain relief

Joint pain interferes with a person's quality of life in many ways. If the pain in the hip area is chronic, affecting the person even when he or she is resting, it can lead to depression and other emotional disturbances. Severe chronic pain also strains a person's relationships with family members, employer, and workplace colleagues; it is now recognized to be as the most common underlying cause of suicide in the United States.

In most cases, however, pain in the hip joint is a gradual development. Typically, the patient finds that their hip begins to ache when they are exercising vigorously, walking, or standing for a long time. They may cut back on athletic activities only to find that they are starting to limp when they walk and that sitting down is also becoming uncomfortable. Many patients then begin to have trouble driving, sitting through a concert or movie, or working at a desk without pain. It is usually at this point, when a person's ability to live independently is threatened, that he or she considers hip replacement

Total hip replacement surgery has some of the best results of all major surgeries. What's more, the implants, whether ceramic-on-ceramic, or metal and highly crosslinked polyethylene, typically last 20 to 25 years.

Physical therapy after hip replacement surgery is one of the keys to a successful recovery.

Still, a hip replacement shouldn't be taken lightly. It's a big surgery and — as with all surgeries — there can be complications. To boost your chances of having a successful surgery, pay attention to these five things.

1. Choose an experienced surgeon who frequently performs hip replacements

William Washington, 73, of Washington, D.C., had a total hip replacement nine years ago after arthritis had so damaged cartilage in his hip that bolts of pain routinely shot through his back. He's pain-free now and plays golf regularly, a happy outcome he attributes to his choice of an experienced surgeon. "He had done plenty of these and many people had recommended him," Washington says. "He's the mechanic. He knows the way to do it."

Experience is the key, but how much? At least 30 replacements a year, says Brian Parsley, an orthopedic surgeon in Houston and one of the directors of the American Association of Hip and Knee Surgeons. And the surgeon should have done at least 100 procedures, says Justin Cashman, a Maryland orthopedic surgeon. How to find such a surgeon? "Your primary care physician can point you in the right direction," says Cashman.

2. Approaches

The two most common approaches involve incisions either close to the buttock (posterior approach) or in the thigh (anterior approach). In some cases, surgeons may also use minimally invasive techniques, which involve smaller incisions, and the two-incision technique, in which they make one incision in the front of the thigh to insert the synthetic socket, and another in the back of the thigh to insert the ball and stem. Because less muscle is cut with the anterior approach, patients sometimes have fewer restrictions on movement after surgery. Some say the anterior approach results in a shorter hospital stay, less pain and a lower risk of hip dislocation after surgery.

3. Bearing Surfaces

In the last 10 years, major improvements in the artificial bearing surfaces of implants have been approved for use in the U.S. These include hard-on-hard bearing surfaces — ceramic-on-ceramic or metal-on-metal — and also advanced plastics such as highly cross-linked polyethylene. This could make hip replacements last even longer. But only time will tell if they function better than do previous implants.

Ceramic-on-ceramic hip replacements are an improvement on traditional hip replacements for a number of reasons. Some of the benefits to a ceramic-on-ceramic hip replacement solution include:

- Better wear characteristics than traditional hip replacements (metal-on-metal, plastic-on-metal): ceramic-on-ceramic hip replacements have life expectancies that exceed that of the traditional hip replacements
- Pain relief from achy, arthritic joints: ceramic-on-ceramic hip replacements accomplish the same goals of hip replacement, but with longer-lasting results
- Lowered chance of breaking because of the material: ceramic is more durable than the plastics used for other hip replacements

The choice of one type of hip replacement over another has become one of the most important preoperative decisions made by both patient and surgeon. Choosing the artificial bearing surface of your implant is where most preoperative decision making comes into play. It is not uncommon to hear terms such as "metal-on-metal," or "porcelain hip," when discussing options in this area. Although these advances may work well in many people, not everyone is a suitable candidate for these types of hip replacements. The decision to proceed with one type of hip replacement over another should be based on the knowledge about past and current technology, its potential durability based on laboratory testing and clinical use, and the drawbacks of its use. Yes, drawbacks: The majority of the newer implants or surgical techniques used to implant them have been shown to have implant- or patient-specific drawbacks.

4. Surgical option: Total Hip Replacemnet or Resurfacing

Total hip resurfacing — or capping the femur — may work well for some people, but not in others and in certain groups may increase the risk of femur neck fracture. Currently, it can only be done with metal-on-metal bearing surfaces and not everyone is a good candidate for these bearing surfaces. That's because metal-on-metal hip replacement has the potential downsides of allergy and hypersensitivity reactions — which may occur in one out of 1,000 patients. There are also fears of elevated metal ion levels in the bloodstream that could potentially cause detrimental long-term health problems, but this potential problem is purely theoretical and has not been proved in humans despite decades of use.

5. Commit to physical therapy

Total hip replacement is usually followed by three to four days in the hospital. During the hospitalization, you will go for your physiotherapy from Day 1 postop, twice a day. To go home safely you must be able to: Walk 250-350 feet with a walker. Perform your hip exercises independently. Get in and out of the bed by yourself. Get in and out of the bathroom by yourself. Get in and out of the house by yourself. Move up and down any stairs you have at home. Get in and out of a car by yourself. Get in and out of a shower by yourself.

Role of Glucosamine in Osteoarthritis

by **Dr Bryan Ross E. Salcedo,**
Orthopedic Associate

Osteoarthritis is a joint disease caused by loss of cartilage, which is cushioning the joints, either due to injury or to normal wear and tear. It commonly occurs as people age that's why it is sometimes called Degenerative Osteoarthritis. In people with osteoarthritis, the cartilage breaks down and becomes thin. This results in more joint friction, pain, and stiffness...It is the most common form of arthritis, about 10 percent Malaysians over 60 years old suffered from it and recent trends younger ones are not spared too. Several scientific studies suggest that Glucosamine may be an effective treatment for osteoarthritis.

Glucosamine Sulfate is a naturally occurring chemical found in the human body. It is in the fluid that is around the joints. Glucosamine is naturally present in the shell of the shellfish, animal bones, bone marrow and fungi but there are no major food sources for glucosamine but it is available as a nutritional supplement in form of capsule, tablet and powder form. Some researchers think the "sulfate" part of glucosamine sulfate is also important. Sulfate is needed by the body to produce cartilage. This is one reason why researchers believe that glucosamine sulfate might work better than other forms of glucosamine.

Glucosamine is usually combined with chondroitin sulfate, a molecule naturally present in cartilage. Chondroitin gives cartilage elasticity and is believed to prevent the destruction of cartilage by enzymes. Glucosamine is sometimes combined with methylsulfonylmethane, or MSM, in nutritional supplements.

But why do people use Glucosamine and what are the benefits from using it?

Glucosamine supplements are widely used for osteoarthritis, particularly knee osteoarthritis. In some people with osteoarthritis when the cartilage, the rubbery material that cushions joints -- becomes stiff and loses its elasticity it will make the joint prone to damage and may lead to pain, swelling, loss of movement, and further deterioration. Since our body's natural glucosamine is used to build and repair joint cartilage, taking glucosamine supplement is thought to help repair damaged cartilage by increasing the body's supply of glucosamine. Also, certain studies shows that taking glucosamine alleviate osteoarthritis symptoms such as reducing pain, improves function, reduces joint swelling and stiffness and provide relief from osteoarthritis symptoms.

The safety and effectiveness of the use of glucosamine provides positive results for most studies have consistently reported that glucosamine appears safe and may actually slow progression of the disease, unlike other current medical treatments for OA. Many people take either acetaminophen (Tylenol) or nonsteroidal anti-inflammatory drugs, such as ibuprofen (Advil, Motrin) and naproxen (Aleve), for OA pain. In addition, some of these drugs can cause stomach upset, cramps, constipation, diarrhea, and in some cases, stomach ulcers and infertility.

INTRAOPERATIVE CORD and NERVE MONITORING

by **Dr Wong Chung Chek,**
Consultant Orthopedic Spine Surgeon

During spine surgery, it is important to protect the nerves associated with the spinal column. These nerves carry messages to and from the brain, organs, and limbs, aiding them with proper movement and sensation. Intraoperative Monitoring System provides real-time, precise, and reliable feedback to ensure nerve and spinal cord safety. By using this unique and advanced technology, the surgeon is provided with intraoperative information about the location and function of the nerves, assisting with safe implant placement and surgical technique during minimally disruptive spine procedures. With the safety afforded by this nerve monitoring system, you can experience a faster recovery and a quicker return to your normal lifestyle.

Electromyography

What is EMG?

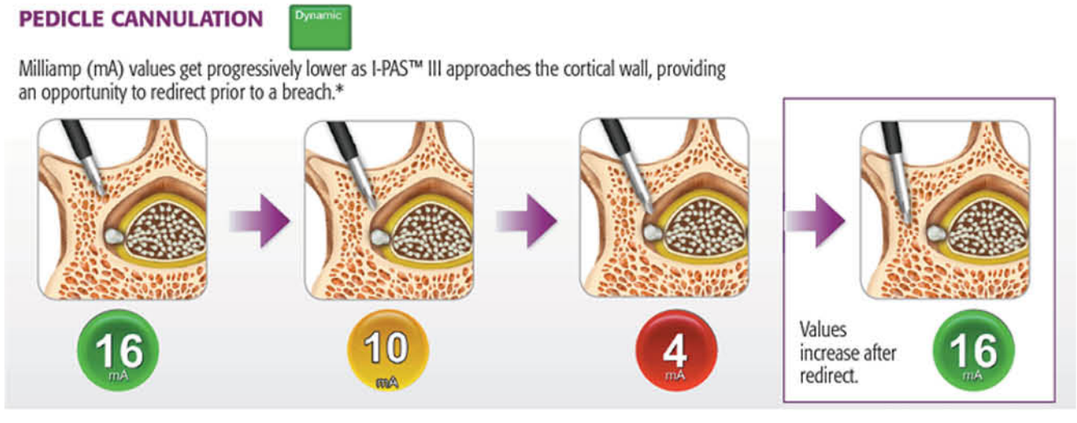
EMG stands for electromyography, which is the study of the electrical activity of muscles. It is a test used to determine the health and function of nerves and/or muscles.

Why is EMG Used in Surgery?

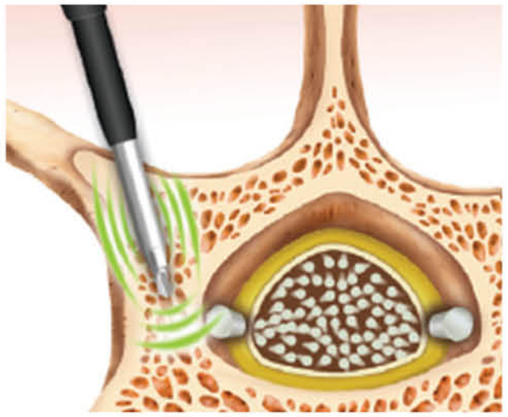
EMG stands for electromyography, which is the study of the electrical activity of muscles. It is a test used to determine the health and function of nerves and/or muscles.

Spinal Cord
The spinal cord is the part of the central nervous system which extends from the brain stem to the lower spine through the bony protection of the spinal canal. It acts as a conduit for sensory and motor information to travel to and from the brain, respectively. The spinal cord usually ends at the second lumbar level (L2) and then extends as a bundle of individual nerves known as the cauda equina.

Cauda Equina
"Cauda equina" is Latin for "horse's tail." It is the lower extension of the spinal cord,



comprised of individual nerve roots, which when bundled, resemble a horse's tail. These nerve roots exit the spinal canal individually at each spinal level, giving rise to each level's spinal nerves.



Spinal Nerves
The shape of the vertebrae allow for the passage of the spinal cord from the brain to the lower part of the body through the spinal canal. From the spinal cord, spinal nerves exit the spinal canal between each vertebra on both sides. After exiting the spinal canal, these spinal nerves then further entwine and extend to send signals between your brain and your organs, muscles, and other tissues. The cervical spinal nerves innervate (provide muscle activity and sensation functions to) your upper back, arms, and hands. The lumbar spinal nerves innervate your lower back, abdomen, and legs. If any of these nerves are pinched by a bulging disc or the position of your vertebrae, for example, you might experience back, groin, and/or leg pain or numbness.

Myotomes
Myotomes are muscle groups that are innervated by particular spinal nerve levels. By knowing which spinal nerves innervate specific muscles, we can monitor those muscles for changes in the nerves' health. For example,
we can monitor the following muscle groups for information about the corresponding spinal nerves:

- Quadriceps (front thigh muscles) L2, L3, L4
- Anterior Tibialis (shin muscle)L4, L5
- Hamstrings (back thigh muscles) L5, S1

Gastrocnemius (calf muscle) S1, S2

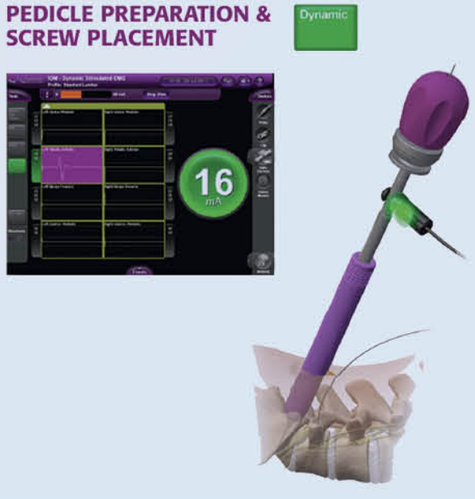
As mentioned, by knowing each myotome's specific innervation patterns we can monitor those muscle groups using EMG to determine the health and function of the nerves that innervate them.

For example, EMG can be used to help determine proper pedicle screw placement in fusion surgeries to avoid nerve impingement or nerve proximity during surgical approaches, such as the Minimal Invasive Surgeries.

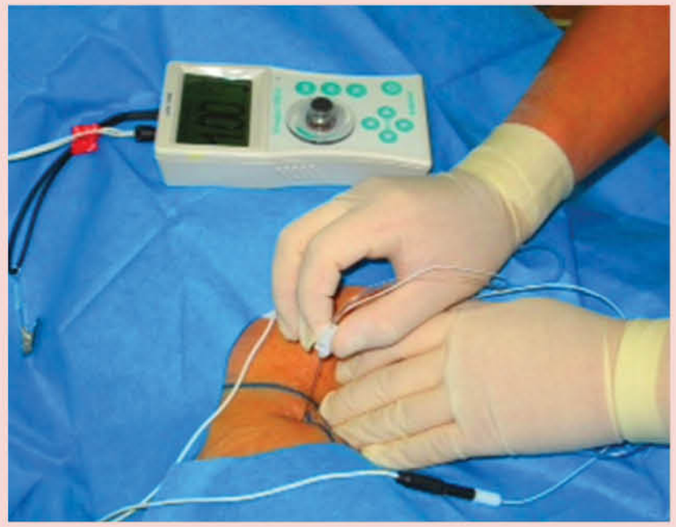
Is Intraoperative Monitoring right for me?

Your physician may determine that intraoperative nerve monitoring is a good option for you if you require spine surgery where your cervical or lumbar nerve roots are affected. Example surgeries include:

- Lumbar Decompression
- Lumbar Interbody Fusion (from any approach:
- PLIF, TLIF, ALIF, XLIF)
- Lumbar Pedicle Screw Instrumentation
- Lumbar Total Disc Replacement
- Cauda Equina Surgery
- Anterior Cervical Decompression and Fusion (ACDF)
- Cervical Total Disc Replacement



POST TKR PAIN RELIEF



by **Francis Lau Chui Sing,**
Consultant
Anaesthesiologist

What is pain? Pain is the discomfort that you feel over any part of your body. You should be able to differentiate if the pain is normal or abnormal, which means it might imply something sinister like cancer. After TKR it is normal to have pain over the wound. The acute and moderate to severe pain only lasts a couple of days while the minor pain will linger on for few weeks to few months till full recovery. At our centre we have devised standard interventions to minimise the pain you will experience after the operation. We believed this is important, not only for your psychological well being, but to enable you to do effective physiotherapy and to have a good result from the surgery.

The anaesthetist will visit you before the operation and prescribed the pain medications as appropriate for your healthe status. We believed in pre-emptive analgesia, which means you take the pain medications before the surgeon incise on your knee, and these drugs will reduce your pain more effectively than taking them after the operation.

During the operation our surgeon will infiltrate a cocktail consisting of local anaesthetic agent, an opioid, and an anti-inflammatory drug to your knee. This cocktail will enchance the effect of pain medications that you take orally.

Once the operation is concluded, the anaesthetist will do a femoral nerve block at your groin area. This procedure is done with a nerve stimulator to precisely locate the nerve that transmits pain signal from your knee. This injection will provide pain relief from 16 to 24 hours.

After TKR, your will be given pain medications at regular interval. It is important to take the drugs as given. Don't wait for the pain becoming unbearable before you take the pain medications, i.e. pain medications work better if you take them before the analgesic effect is worn off.

In our experience of treating hundred of TKR patients a year, most of the patients are quite comfortable with our pain regime, and they are able to stand up the very next day. We do prescribe strong opioid for some patients who experience severe pain despite our regime. Don't worry that you will get addicted to the pain medicine; you won't.

Whatever pain you feel after TKR, with time it will get better. And with your new knee your should enjoy your walk again.

"If I had known hip replacement surgery was going to be this easy. I would have done it sooner"

Premala*

MOTION and LONGEVITY:

a story of large head ceramic on ceramic total hip replacement.

by **Dr Lee Woo Guan,**
Consultant Adult Reconstructive Orthopedic and Sports Surgeon

Premala* is sitting on the floor playing Legos with her 4-year-old grandson. A few months ago, such activity was a wistful wish for her, because the pain and stiffness in her hip had curtailed her movements to the point that she considered every step required before venturing from home.

The retired schoolteacher from Sri Aman says she feels like she is aging backwards now. Instead of 60, she feels like a sprightly 40 because of her increased mobility following total hip replacement surgery. "It's like a miracle in my life," Premala* says. "It's just amazing to me that after this surgery I feel so good. I didn't realize how much energy it took from me to deal with the hip."

She has been using crutches since 2011, when the doctors discovered that she was suffering from avascular necrosis.

The pain

Dr Lee Woo Guan, an orthopaedic surgeon from Kuching Specialist Hospital, explains that this condition occurs when there is no blood supply to the hip joint which leads to the death of the bone. A year earlier, in 2010, Premala* says she started to feel pain in the hip muscles; however, she let it pass thinking it was normal pain.

Painkillers were prescribed for her at each visit to hospital because the doctors thought it was the usual pain that sicklers often get. "The relief was temporary because as soon as the dose was finished, I would feel the pain again," she says. The last six years have been difficult for the young woman. She gets frequent headaches and feels pain in almost every part of the body: in the back, arms and lower back. "If I stand for a long time or walk long distances, I get severe pain in the leg. This pain may stay for a week or two months," she says.

When the pain persisted, the doctors decided to take an x-ray which showed that she had severe impairment of the right hip—avascular necrosis.

An operation

Because it was not treated in its earlier stage, the pain (and the condition generally) has now become severe. Premala's* leg has reduced in length. "I have also slanted on the right hand side because the legs are not at the same length."

The operation—a cement-less ceramic on ceramic right total hip replacement—was done in May, 2011. She was discharged after only three days and proudly reports, "By mid-June, I was on my own."

Premala* first hip replacement went so well that when her left hip started giving her problems a year later, she didn't hesitate to have it replaced too.

"If I had known hip replacement surgery was going to be this easy, I would have done it sooner".

**Hypothetical patient's name and picture, based on true story of actual patient.*

"I am so excited when I returned to the golf field as I know I can continue with 18 hole course in 4 hours."

Datuk Rohaizat*

Golf has always been a significant part in Datuk Rohaizat's* life. He always play 18 hole-course in 4 hours during his leisure time. In year 2007, pain and swelling over his right knee after long distance walking and standing had stopped him from engaging actively in golf. He had to apply cold compression after each game as his knee was swelling and caused discomfort to him.

In July 2007, he decided to consult Dr. Lee Woo Guan, the adult arthroplasty orthopaedic surgeon in KPJ Kuching Specialist Hospital to seek for treatment. He was diagnosed with problem of right knee patello- femoral osteoarthritis. He was recommended to undergo an operation of right total knee replacement.

He was happy as the recovery process was uneventfully. One month after the surgery, Datuk Rohaizat* able to walk independently without using single crutch and he able to travel to oversea without experiencing pain like before. The most important thing was he able to return to his favourite sport which is golf. He was back to golf 2 months after the surgery. He can fully immerse in the game he loves the most.

"I am so excited when I returned to the golf field as I know I can continue with 18 hole course in 4 hours. I was amazed with the outcome and no more ice-pack during the night." He added the new knee had significantly increased his quality of life and he can walk on the knee naturally without any adjustment or modification made to facilitate his motion.

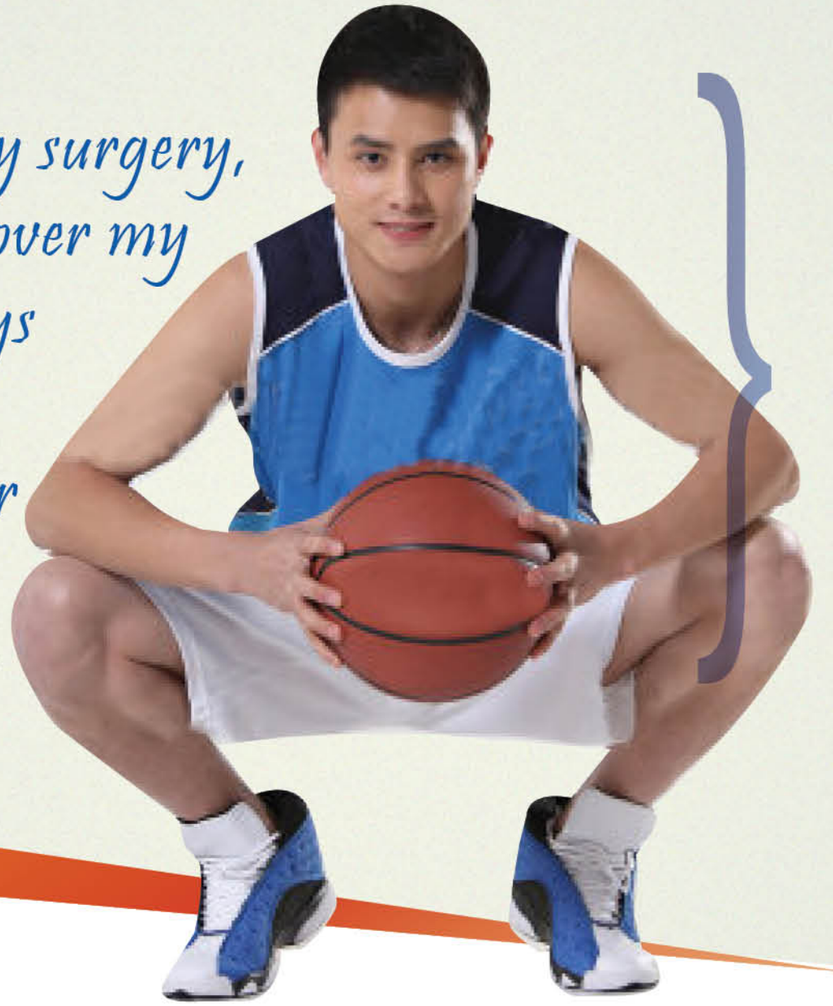
Recently, he was back for the same operation over his left knee. He stated hat he able to walk without utilizing single crutch despite it was only 10 days after the operation was done. He feels good with both of his knees as the surgery had taken his pain and discomfort away.

**Hypothetical patient's name and picture, based on true story of actual patient.*

by **Dr Lee Woo Guan,**
Consultant Adult Reconstructive Orthopedic and Sports Surgeon

"Before my surgery, the hump over my back always makes me feel inferior about it...

Chong An*



by **Dr Wong Chung Chek,**
Consultant Orthopedic Spine Surgeon

...I cannot avoid questions and stares from the others about this deformity. I had breathing problems if I walked extra miles, going up and down stairs or playing basketball. Basketball is my favourite sport but due to difficulty in breathing, it drew me out from engaging in this sport."

Chong An*, currently studies as a mechanical engineer in a local university. He was 15 year old when diagnosed with problem of severe thoracic scoliosis by Dr Wong Chung Chek. He underwent an operation of scoliosis correction surgery by Dr Wong in November 2010 in KPJ Kuching Specialist Hospital. 3 days after the surgery, he walked around the room with the help from his mother. To his surprise, he was 5cm increased in height and his back looked much better after the surgery.

A year after the surgery, he began to engage in basketball and other sports. Today, he is fully active in various outdoor activities. He mentioned that he has no longer experiencing any episode of difficulty in breathing. He was confident to walk among people as his back appears straighter than before. He added every chapter of his life now is adventurous for him to explore with.

**Hypothetical patient's name and picture, based on true story of actual patient.*

"After the surgery, I was totally pain free"

Mrs Tan *

Over the past, I always thought that I am still young and do whatever I am still capable with until one incident occurred in my life which I have to admit that I am actually getting old.

I come from China and since I moved to Kuching, I used walking as the primary exercise to maintain my healthy lifestyle. I often jog with my husband in the park during our leisure time. On 22/11/ 2011 (Sunday), I decided to have stroll in front of my house instead of going to park due to some discomfort over my right thigh. On the next day, the pain was getting more severe and I went to consult a doctor in a private hospital. He suspected my condition was due to problem of the sciatica nerve and I was prescribed with some oral analgesics.

On the 26/10/2011, the pain was radiating to my right lower limbs and I cannot walk at all. The pain was excruciating when I tried to put some weight over my feet. Next day, I went back to consult the same doctor and I was referred to an Orthopaedic surgeon, Dr. Lee Woo Guan in KPJ Kuching Specialist Hospital. I was asked to undergo an investigation of MRI and X –ray, the findings revealed L4L5 disc prolapse. Dr. Lee informed me that an operation of open discectomy was needed pertaining to my problem. He further explained the incision was small; approximately 1 inch length and operation will be collaborated with a spine consultant, Dr. Wong Chung Chek. I had undergone this simple operation on the same day. Next day, I was able to walk freely without experiencing any pain over my leg and followed discharged after reviewed by the surgeon.

Everything went well until 18/11/2011 which was 3 weeks after the operation was done. The similar pain struck me again and I decided to consult Dr. Wong again. Another MRI was done and I was informed by Dr. Wong that the disc was prolapsing again at the same level and compressed on the similar nerve root. He gave me an epidural steroid injection and kept me observed for few more days. On 21/11/2011, I can no longer bear with the pain and went back to Dr. Wong. He suggested for another operation, a bigger operation compared with the previous surgery, a spinal fusion. During the discussion, Dr. Wong explained spinal fusion can be done with a minimal invasive method with two small incisions over the back and this will result less blood lost and less pain post-operatively. Thus, I underwent an operation of L4L5 minimal invasive surgery transforaminal lumbar interbody fusion (MIS TLIF) on 22/11/2011.

After the surgery, I was totally pain free. I was advised not to perform heavy weight lifting for at least 6 months of time; therefore, I spent most of time by reading, watching television and cooking.

**Hypothetical patient's name and picture, based on true story of actual patient.*

by **Dr Wong Chung Chek,**
Consultant Orthopedic
Spine Surgeon

Care for life

Our commitment to our patients is to deliver quality care with unsurpassed service by a professional team of specialist and support using the state-of-art technology. As the largest private healthcare provider with an expanding network of specialist hospital in Malaysia, we welcome you to whole new world of caring.

Kuching Specialist Hospital will be one-stop hospital offering a wide range of outpatient and inpatient specialist services ranging from prevention, diagnosis and treatment of wide range of diseases and medical conditions to anesthetics procedures.

There are also health screening packages that we specially designed to meet the needs of individual in the different age group. Followings are some of the list of packages:

- Executive Health Screening for Men
- Executive Health Screening for Ladies
- Well Ladies Screening Package
- Osteoporosis Screening Package
- Coronary Angiogram Screening Package
- Pre-Employment Screening Package
- College and Varsity Screening Package
- Foreign Screening Package

Meanwhile, Kuching Specialist Hospital also enhancing its services to better cater to the needs of the foreign patient from various countries by offers a complete range of services of prevention, detection and treatment for diseases. Investments continued to be made in new medical equipment and facilities featuring the latest technologies for a more positive patient experience and better medical surgical outcomes.

Kuching Specialist Hospital continuously programmes for the convenience of international patients and their accompanying family members, including arrangements for services that they may need during their stay in Kuching Sarawak. The management of Kuching Specialist Hospital trust that with the latest techniques and technology together with comfortable environment, patients are assured of speedy recovery.

Kuching Specialist Hospital endeavour to provide the best in healthcare service while remaining dedicated. Care for Life!

CONTACT US

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Website: *http://www.kcsh.kpjhealth.com.my*

Q1 **Who should I contact for an appointment, travel, transportation and accomodation arrangement?**

A: You may make an appointment,travel and accommodation arrangement in several ways:
Call, email and BBM to Puan Suryani Ahmad
Contact no: +60128976576 / +60168736011
Email: *suryamaeraj@gmail.com / suryani@kcsh.kpjhealth.com.my*
BB Pin: 229ECC87 / 24C44AA5

Q2 **Which flight should I use?**

A: Arriving by air at Kuching International Airport.
Kuching international airport is served by several major commercial airlines:

a. Malaysia Airline System (MAS)

Jakarta-Kuala Lumpur-Kuching or Jakarta-Singapore-Kuching.
For more information on the flight schedule please visit ***www.malaysiaairlines.com***

b. MASWINGS

Pontianak- Kuching
For more information on the flight schedule please visit ***www.maswings.com.my***

c. Air Asia

Air Asia is another alternative airline which provides flight to Kuching.
Jakarta-Kuala Lumpur-Kuching or Jakarta-Singapore-Kuching
For more information on the flight schedule please visit ***www.airasia.com***

d. Malindo Air

Malindo Air is another alternative airline which provides flight to Kuching.
Kuala Lumpur-Kuching
For more information on the flight schedule please visit ***www.malindoair.com***

Q3 **Can they stay in any hotel nearby? The cost of accomodation?**

A: We have several hotels nearby the hospital:

Budget Hotel

Grand Medallion Hotel located within Tabuan Stutong Commercial Centre approximately 10 minutes from Kuching International Airport. It is strategicaly located near Kuching Specialist Centre. Offering 57 well renovated rooms that are well equipped with modern amenities to cater for the living comfort of modern-day travellers. For more information and reservation you can visit ***www.grandmedallion.com.my***

Mega Inn Hotel located in the heart of Kuching City Center, Mega Inn is an ideal spot from which to discover Kuching. The hotel is not too far from the city center: just 8 km away, and it normally takesabout 10 minutes to reach Kuching Specialist Hospital and airport. For more information and reservation you can visit ***www.megainn.com.my***

Jinhold Service Apartment located within central location and Conveniently connected to the airport in the heart of Kuching. For more information, please contact Lot 15958, Block 11 M.T.L.D., Jalan Song, Kuching, 93350 Malaysia ***1-800-814652 (Malaysia Toll Free) or email to jinholdkuching@gmail.com***

4 Star Hotel

Located in Kuching, Four Points by Sheraton Kuching is in the business district and convenient to Kuching Boulevard Shopping Complex and Boulevard Shopping Mall. For more information, please contact Lot 3186-3187 ,Block 16 ,KCLD Jalan Lapangan Terbang Baru 93350 Kuching, Sarawak ***Tel: 082-280 888.***

Q4 **How to arrange for the pick up from the Airport?**

A: In order to assist visitor from outside Kuching, Hospital has provides complimentary shuttle service from the Airport to the designated place as per arranged by the PR Services.

Q5 **How are the mode of payment at Kuching Specialist Hospital? Can I transfer my money?**

A: We accept payment by CASH , DEBIT CARD and CREDIT CARD. You can transfer money for payment to KCSH account . Our bank details as follows:-

Name of Beneficiary: Kuching Specialist Hospital Sdn Bhd
Name of Bank: AMBank (M) Sdn Bhd
Account No: 243-201-200265-2
Account Type: Current
Swift Code Number: ARBKMYKL
Payment Currency: Malaysian Ringgit (MYR)