Star health

DHAKA SUNDAY JULY 18, 2004

e-mail: starhealth@thedailystar.net

When will you need a knee replacement surgery?

DR MD HASAN MASUD

If your knee is severely damaged by arthritis or injury, it may be hard for you to perform simple activities such as walking or climbing stairs. You may even begin to feel pain while you are sitting or lying down. If medications changing your activity level and using walking supports are no longer helpful, you may want to consider total knee replacement surgery.

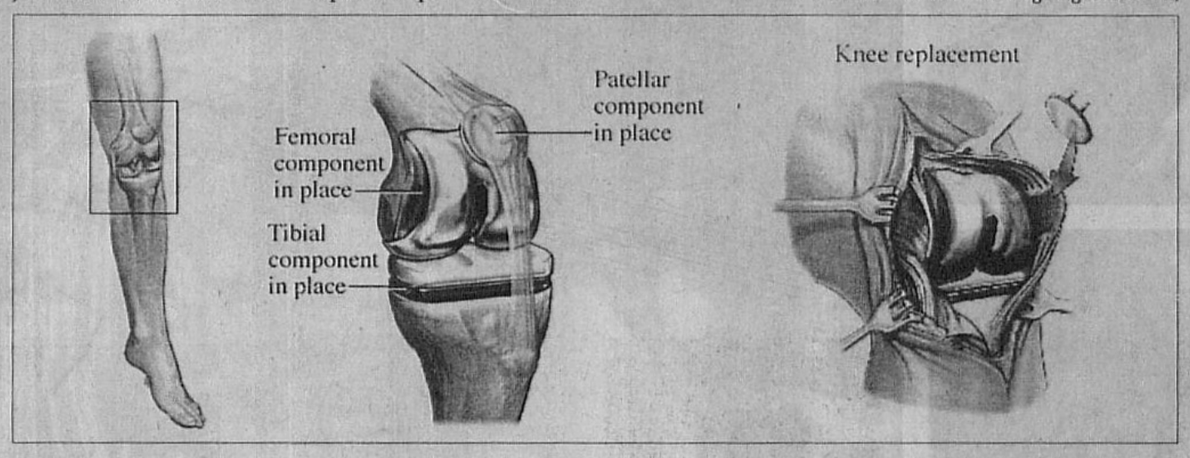
Now the question comes, "What exactly a total knee replacement is?" The simplest answer is that -- it is a replacement of the worn and arthritic surfaces for the knee joint. A knee replacement is similar to resurfacing a road full of potholes. A total knee replacement puts an artificial surface on all parts of the joint that contact each other as the knee bends. With arthritis, the cartilage covering the ends of the bone within the knee joint is badly worn. In a knee replacement, this damaged cartilage, along with a very small amount of bone, is removed with precise guides and instruments. The knee replacement implant, which is made of metal and plastic in a variety of sizes, is then fitted to the bone to provide an artificial surface that causes no pain. By resurfacing your knee's damaged and worn surfaces, total knee replacement surgery can relieve your pain, correct your leg deformity and help you resume your normal activities.

Total knee replacement in some form has been practiced for over 50 years. One of the most important orthopaedic surgical advances of this century, total knee replacement was first performed in 1968. The complexities of the knee joint only began to be understood 30 years ago. Because of this, total knee replacement initially was not as successful as Sir John Charnley's artificial hip joint. However, over the last 20 years, dramatic advancements in the knowledge of knee mechanics have led to design modifications that appear to be durable. Significant advances have occurred in the type and quality of the metals, polyethylene and more recently ceramics used in the prosthesis manufacturing process, leading to improved longevity. As with most techniques in modern medicine, more and more patients are receiving the benefits of total knee replacement.

Conditions when we need total knee replacement

Osteoarthritic destruction of the knee is the most common reason for total knee replacement. This is a disease of synovial joints, characterised by degenerative and reparative processes and is among the common causes of the secondary type. Other causes of cartilage destruction include rheumatoid arthritis, hemophilia, seronegative arthritides, crystal deposition diseases, pigmented villonodular synovitis, idiopathic or steroid-induced avascular necrosis and rare bone dysplasia.

Recent studies into risk factors for severe osteoarthritis of the hip and knee have revealed that siblings of individuals undergoing joint replacement are 3-5 times more likely to require similar surgery than age-matched controls. This means that genes contribute around 30 percent of the overall risk for severe osteoarthritis. Laboratory-based studies have shown that chromosome 11 is linked to severe osteoarthritis of the hip and chromosome 2 to severe osteoarthritis of the knee. The precise genes involved are as yet unknown.



Contradictions of knee replacement

Absolute contraindications to total knee replacement include knee sepsis (infection), a remote source of ongoing infection, extensor mechanism dysfunction, severe vascular disease, recurvatum deformity secondary to muscular weakness and the presence of a well-functioning knee arthrodesis. Relative contraindications include medical conditions that preclude safe anesthesia and the demands of surgery and rehabilitation. Other relative contraindications include skin conditions within the field of surgery (e.g. psoriasis), a past history of osteomyelitis around the knee, a neuropathic joint, and obesity.

Realistic expectations about knee replacement surgery

Most patients seem satisfied with their knee replacements and if pain relief is the main indication for surgery, this indeed should be the case. An important factor in deciding whether to have total knee replacement surgery is understanding what the procedure can and cannot do. More than 90 percent of individuals who undergo total knee replacement experience a dramatic reduction of knee pain and a significant improvement in the ability to perform common activities of daily living But total knee replacement will not make you a super-athlete or allow you to do more than you could before you developed arthritis. Satisfactory knee function is usually restored following total knee replacement and the majority of patients are able to return to low-impact sporting activity. Long-term studies confirm satisfactory functional scores and show a 91-96 percent prosthesis survival rate at 14-15 years of follow-up. Cement less designs do not have the same length of follow-up, but studies at 10-12 years report a 95 percent prosthesis survival rate.

UN sends aid to Bangladesh to avert epidemics

UN aid agencies said they were distributing food and water purification tablets in Bangladesh, where they fear monsoon floods will spark epidemics such as cholera and dysentery.

About 12 million people in South Asia -- from Bangladesh to India and Nepal -- have been affected by torrential rains that are reportedly the worst in 15 years, according to the United Nations Children's Fund (UNICEF).

The UN agency, which has already distributed 500,000 water purification tablets in the country, will send another one million tablets from its warehouse in Copenhagen.

"We want to avoid epidemics which in such cases can spread very rapidly especially with temperatures now above 35 degrees Celsius," spokesman Damien Personnaz told a news briefing.

The UN World Food Programme has begun distributing high-energy biscuits to 14,800 people in three hard hit districts of northern Bangladesh, spokesman Simon Pluess said.

A UN disaster response team has also begun a three-day mission to assess the region's humanitarian needs, he said.

"Certain populations have lost everything. We also fear epidemics there and have offered water purification tablets," Personnaz said.

Source: http://www.reuters.com

Dr Garst, a true friend of Bangladesh

The father of Orthopaedics in Bangladesh, Dr RJ Garst (Centre) is flanked by late eminent hand surgeon Dr Paul Brand (Left) and noted freedom fighter and Head of Orthopaedics and surgery, Dhaka Medical College Hospital Dr M Amjad Hossain. The picture was taken on October 27 in 1994 at Cincinatti, Albert Sabin Hall, Ohio, USA during the 49 meeting of the Association for society of Surgeons of Hand (Asstt).

ZAM KHAIRUZZAMAN

A recent message of the father of orthopaedics in Bangladesh, Dr R J Garst has created great enthusiasm and become a source of inspiration for both the professional surgeons and trainees. Professor and head of Orthopaedics and Trauma Surgery Department of the Dhaka Medical College and Hospital (DMCH) Dr Md Amjad Hossain told this correspondent last week.

The message was sent to him ahead of a CME (Continuous Medical Education) on Musculoskeletal disorders and promotion of 'The bone and joint decade 2000-2010' scheduled to be held on the 26th and 27th July at the Dhaka Medical College Hospital.

The message is as follows --

"I wish to congratulate you on having a CME on 'Musculoskeletal disorders.' I see Prof TK Shanmugasundaram is attending from India. Please give him my best regards.

In reading my latest Bulletin from the American College of Surgeons I came to a shocking article (Vol 89, Num 6 pg 16). The author states, "today's trainees (residents in surgery) receive an extremely poor educational experience.' He further states that an innovative change in surgical education is necessary. He goes on to describe a programme called the M+M Matrix as done at the Cedars-Sinai Centre in Los Angeles, California. The M+M refers to the traditional Morbidity and Mortality conferences held throughout the USA which the author considered of little value in training.

The "M+M Matrix" which he described is exactly the daily conference we established in National Institute of Traumatology and Orthopaedic Rehabilitation (NITOR) in 1972 and has continued. In Los Angeles they have it only once a week while we had it daily.

Dr Garst (full name Dr Ronald Joshep Garst) was born in Tennessee of the United States. After graduation he completed the board examination as an orthopaedic surgeon. In 1953, he joined the Christian Missionaries in the Indian town of Ludhiana and worked as Associate Professor of Orthopaedics and Superintendent of Ludhiana Christian Medical College till 1971.

Being worried by the devasting war, Dr Garst came forward in aid of war wounded people and continued to render his invaluable service. At that he had come across the then special envoy of the Bangladesh government in exile.

Observing his ability and interest to treat the war injured freedom fighters in war camps, Justice Abu Syeed Chowdhury invited Dr Garst to visit Bangladesh seeking his cooperation in treating the disabled freedom fighters.

Dr Garst's affection for the war-wounded freedom fighters brought him to Bangladesh on February 28, 1972. At the direct patronisation of the then government, Dr Garst had set up makeshift rehabilitation camps for the disabled freedom fighters at Mohammadpur College Gate and Shaheed Suhrawardy Hospital at Sher-e-Bangla Nagar.

He stayed in Bangladesh till 1981 extending his services to the disabled freedom fighters and largely developing the country's Orthopaedic treatment facilities. He founded the Rehabilitation Institute and Hospital for the Disabled (RIHD), now named NITOR and worked there as its Project Director on monthly remuneration of one taka only. MS and Diploma in Orthopaedics were also introduced under Dhaka University at his own efforts.

But how many people in our country know the name of this humanitarian and great philanthropist? The entire nation is indebted to this noble man and a true friend of Bangladesh.

Overweight children risk iron deficiency

Overweight children are at double the risk of being iron deficient, perhaps because of bad diet or lack of exercise, a study said.

Iron deficiency is a global problem most commonly found in poorer people lacking proper nutrition, but the study concluded that the rising number of obese people in the community should be checked and treated for it.

Too little iron in the blood can cause anemia and lead to learning and behavioral problems as well as pose limits on work and exercise.

Many obese children do not get screened for iron deficiency.

In her study of 10,000 children aged 2 to 16, nearly one in 10 of the overweight teenagers was iron deficient. Among 2- to 5-year-olds, 6 percent were iron deficient.

Overall, the rate of iron deficiency was double among overweight children compared to normal-weight children and was more likely the higher the children's body mass index, a ratio of weight to height known as BMI.

The association between iron deficiency and being overweight may be caused by lack of exercise or a diet lacking in iron-rich foods, the study said.

It also said that genetics could play a role, and that overweight girls tend to grow faster than their peers, making it difficult for them to keep up with their bodies' iron requirements.

Source: http://www.reuters.com

Facts about temporo-mandibular joint disorders

Temporomandibular joint disorders are a variety of conditions that cause pain in the temporomandibular joint (TMJ). Your TMJ is the hinge joint on each side of your head where your lower jawbone (mandible) joins the temporal bone of your skull.

The bony surfaces of the TMJ are covered with cartilage and separated by a small disk, which prevents them from rubbing against each other. The muscles that enable you to open and close your mouth stabilise this joint.

The potential causes of tenderness and pain in your TMJ are many. They include wear and tear, arthritic inflammation, injury, stress, some dental appliances, and clenching or grinding your teeth. The pain associated with TMJ disorders (also referred to as TMDs) can vary from minor to severe. The condition may be temporary or chronic.

A variety of approaches can provide relief, and you can take actions to counter the factors that may lead to TMJ pain.

Signs and symptoms

Signs and symptoms of TMJ disorders may include:

- Inability to chew certain foods, or eating only a soft diet
- Facial pain
- Tenderness of your jaw
- Aching pain in and around your ear
- A clicking sound or grating sensation when opening your mouth or chewing
- Locking of the joint, making it difficult to open or close your mouth
- Headache
- Uncomfortable bite
- An uneven bite, because one or more teeth are making premature contact

You may feel the pain or tenderness, even when you are not moving your jaw. But in most cases, the pain or tenderness worsens when you move your jaw or chew.

A dull discomfort in your jaws and muscles on awakening in the morning or that gets progressively worse throughout the day may be the result of excessive grinding (bruxism) and jaw clenching. This condition is sometimes associated with a TMJ disorder.

Jaw clicking is common and does not always signal a problem. If there is no pain or limitation of movement associated with your jaw clicking, you probably do not have a TMJ disorder.

Causes

Tenderness and pain originating in the TMJ can stem from a variety of causes. Like other joints, the TMJ is susceptible to osteoarthritis, rheumatoid arthritis and other forms of inflammation.

Normally, the TMJ allows the jaw to open and close smoothly. The lower jaw has rounded ends called condyles that glide in and out of the joint socket when you talk, chew or yawn. There is also a disk between each condyle and the bone to absorb shock and keep the movement smooth.

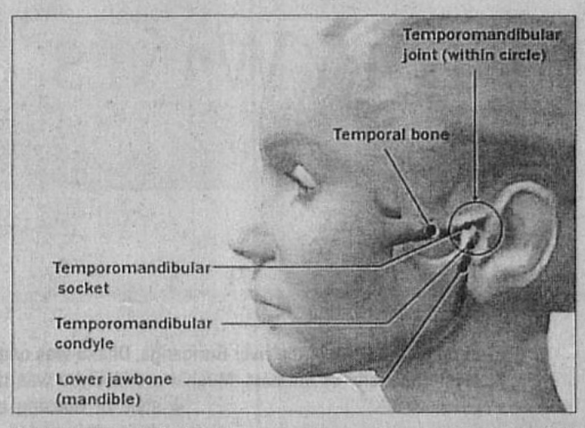
If movement of your left and right TMJs are not coordinated, pain and other symptoms can develop. The disk that separates your lower jaw from your skull can slip out of position or a condyle can become dislocated, either of which can cause pain or the inability to open your mouth or jaw fully. An improperly aligned bite can contribute to dislocation. Pain in the TMJ can also result from degeneration of or trauma to the joint, such as by a blow to your jaw.

Chronic tension and anxiety may cause you to grind your teeth (bruxism), often at night, or to maintain clenched jaws. This overuse of your TMJ and supporting muscles may cause pain.

Risk factors

Stress can be a factor in temporomandibular joint disorders. Chronic tension and anxiety may cause you to keep your jaws clenched, overusing the muscles attached to the temporal bone that stabilise the temporomandibular joint, leading to a TMJ disorder.

Stress can cause you to vigorously grind your teeth even when you are not eating. Vigorous and excessive grinding overuses the muscles of the temporomandibular joint region, which can cause pain. Many people are unaware they grind their teeth while they are sleeping. Women are more likely to develop TMJ disorders than are men.



Temporomandibular joint disorders are painful conditions involving the temporomandibular joint, where the temporal bone joins the lower jawbone.

When to seek medical advice

If you have persistent pain or tenderness in your temporomandibular joint, if you have facial pain and experience clicking or grating when you chew or move your jaw, or if you cannot open or close your jaw completely, seek medical attention. Your doctor, dentist, TMJ specialist, or oral and maxillofacial surgeon can discuss possible causes and treatments with you.

Treatment

Many treatments are available for TMJ disorders, though not all have proved beneficial. Most health care practitioners recommend beginning with the most conservative and noninvasive treatment.

Aside from asking you to avoid overusing your jaw, your doctor or dentist may suggest one or more of the following treatments:

- **Anti-inflammatory medications.** To reduce inflammation and lessen pain, your physician or dentist may advise taking aspirin or another nonsteroidal anti-inflammatory drug such as ibuprofen. For severe pain and inflammation, corticosteroid drugs injected into the joint may provide relief.
- **Heat or cold.** Appling warm, moist heat or ice to the side of your face may make you feel better.
- **Corrective dental treatment.** Your dentist may improve your bite by balancing the biting surfaces of your teeth, replacing missing teeth, or replacing needed fillings or crowns.
- **Biteplate.** If your TMJ is misaligned, your dentist may recommend a plastic biteplate (splint), worn over your teeth, to help align your upper and lower jaws.
- Night guard appliance. If you grind your teeth in your sleep, a night guard appliance, which is a soft or firm device inserted over your teeth, can help prevent grinding and excessive wear.
- **Arthrocentesis.** This procedure involves insertion of a needle so that fluid can be removed to clear out the joint.
- **Surgery.** If the above approaches don't work, surgery to repair or remove the disk between your mandible and temporal bone may help, but the need for such surgery is rare.

Source: http://www.mayoclinic.com

Surgery and seminar on orthopaedics at DMCH

STAR HEALTH DESK

The department of Orthopaedic Surgery of Dhaka Medical College Hospital (DMCH) in collaboration with Bangladesh Orthopaedic Society is going to arrange a seminar on "Musculo-skeletal disorders" and "The Bone and Joint Decade 2000-2010" on coming 26th and 27th July at the DMCH.

Professor N S Laud, renowned joint replacement surgeon of India and Professor T K Shanmugasundaram, Professor Emeritus, Chairman, Indian national Action Network and master of Musculo-skeletal Tuberculosis have given their kind consent to attend the programme and to deliver lectures and demonstrations, says a press release. Health professionals are invited to attend the seminar.

Some operations will be held during these above mentioned days. The renowned Indian surgeons will join the operation team. In this connections patients with orthopaedic ailments are requested to visit the Surgery outdoor patient management unit of DMCH up to 25th July to be enlisted for operation.