

TOTAL KNEE REPLACEMENT

I have put together the following information for patients who have arthritis in their knee, or knees, which has progressed to the stage that the pain is making it difficult or impossible to carry out their daily living or work activities. The primary reason to do this operation is to improve or substantially relieve your pain. Secondary reasons are to gain motion and correct deformity.

DO I NEED A TOTAL KNEE REPLACEMENT?

As mentioned above, when the pain and dysfunction is severe enough to impact on your work and daily activities, it is usually the time to consider a total knee replacement. I have compiled this handout to be sure that you are informed of the nature of the operation and what to expect, both good and bad. After reading this information you should be able to decide whether or not you would like to proceed with the surgery or whether to delay your decision for a period of time, possibly indefinitely.

WHAT DOES THE PROCEDURE INVOLVE?

Some of you will be seen by a General Physician for a complete evaluation of your condition prior to admission to the hospital. This is to ensure that your general health is satisfactory to undergo the operation. This specialist will also follow up while you are in hospital to check on your general medical condition.

Admission to hospital is usually on the day of your surgery. You will be seen by the anaesthetist who will discuss the type of anaesthetic that will be used. You will be given a general, spinal or epidural anaesthetic, depending on your medical condition. If an epidural is used you are not fully asleep. It can also be continued after the surgery to help control the post-operative pain.

A long incision is made to the front of your knee and the arthritic joint surface is exposed. A series of small cuts are made to remove the arthritic surface. Very little bone is removed and only the rough, pitted arthritic surface is taken off. This is done in a precise fashion so that a metal cap can fit snugly over the end of the thigh bone (femur), and a metal backed plastic component can be placed over the top of your shin bone (tibia). The back of the kneecap may also be removed in the same fashion and replaced. You can think of it as being similar to recapping or retreading a tyre.

These components are either bonded to the bone with a bone cement, or a type of implant is used which has a porous backing on it. This allows bone to grow into it, thereby securing the implant. The choice as to which is used is determined to some degree by your age, weight, bone quality and other factors.

The procedure itself will usually take about two hours however you will not be in your room for four or five hours. This accounts for the time prior to

surgery when you are being prepared and the time in the recovery room afterwards.

HOW LONG WILL I BE IN THE HOSPITAL?

Most patients go home about one week after their surgery.

HOW LONG WILL IT TAKE TO RECOVER AND WHAT CAN I EXPECT?

Some patients complain about the amount of pain after surgery. This is a major operation and you should expect a great deal of pain in the immediate post-operative period. You will either have an epidural or a patient-controlled anaesthesia machine, which means that you can, by pressing a button, give yourself pain medicine through an intravenous line when you want it. After a few days, usually one to three, you will be taken off the patient-controlled anaesthesia machine or the epidural will be removed and you will take medication for the pain. The

The logo for Queensland Combined Orthopaedic Specialists (qcos) features the letters 'qcos' in a stylized, lowercase, orange font. The 'q' is a simple circle with a short vertical line at the bottom. The 'c' is a circle with a small gap at the top. The 'o' is a simple circle. The 's' is a simple circle with a short vertical line at the bottom. There are three small orange dots above the 'o'.

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tolerance of pain is highly individual. Some patients have a little pain and suffer a lot and others have a lot a pain and suffer very little. Some patients have commented that they were not prepared for the amount of pain after surgery. There will be a great deal of pain, but for most, it is controlled satisfactorily by one of the above methods.

You can sit in a chair within a day or so after the surgery and you will begin to walk with a walker or crutches within one to five days. Tubes will be placed in your knee to drain away excess blood and these are usually removed about twenty-four hours after surgery.

You will require rehabilitation and physiotherapy while in hospital, and after discharge, to regain motion and satisfactory strength in your knee. This includes the ability to straighten out the knee and to regain the bend or flexion in the knee. A machine may be used to help you move you knee while in hospital.

You can swim within about two weeks after the surgery.

After two to three months you can resume walking, golfing and biking if desired. I ask my patients not to run, jump or participate in activities or sports which require this involvement.

It can take up to six months to recover from the surgery and to fully regain your strength.

You can expect, in the absence of complication, a knee that hurts a lot less and hopefully, one that functions and moves better. It will not be "normal" and you will have some aches and pains, clicks and pops.

Some patients have severely limited motion before the surgery. You should at least regain that motion and hopefully see further improvement.

WHAT ARE THE COMPLICATIONS?

Loss of motion can occur. It can be difficult to get the knee to bend back more than ninety degrees (right angle) after this surgery. Early rehabilitation and physiotherapy while in hospital and within the first month is very important. If you do not regain motion beyond ninety degrees, you will have some trouble with stairs, getting in and out of chairs, putting on your clothes, socks, stockings and so forth. If you do not regain enough motion, you may require further manipulation to help get it going.

Infection is a major but relatively rare (approximately 1 – 2%) complication. This is pus or festering in the knee as a result of having had the surgery. It can happen while in hospital or after discharge. Infection can come from germs acquired in the hospital at the time of surgery or in the immediate post-operative period. It can also come from your own body soon after surgery, or even months or years later. If this occurs, further surgery or surgeries will be necessary to at least clean out the knee. The components often have to be removed and sometimes cannot be put back in. Some organisms which are relatively sensitive to antibiotics can be successfully treated and an attempt can be made to replace the components about six weeks post-removal. If unsuccessful, either because the components cannot be replaced or because the infection recurs, the knee has to be fused (made stiff) in a straight position. The only consolation is that the pain in your knee would be substantially diminished after it was made stiff. This is a very serious complication and if it occurs in the worst form, it could lead to the loss of limb and possibly, life.

Loosening or failure of the components is another complication. If this does happen, the knee usually hurts enough to require further surgery to replace the loose component.

Wear of the plastic portion of the components does occur. The rate of wear depends on many factors such as age, your activity level, weight and so forth. A severely worn plastic component will most often require revision or replacement, as is required when the components become loose.

Blood clots (phlebitis) can occur in either the leg or the deep veins of the pelvis and require treatment with a blood thinner. If the clot gets loose and goes to your lung, it can be life threatening. Everything possible will be done to prevent this complication. You will have alternating compression devices on both legs to help prevent blood clots, as well as aspirin.

If excessive blood loss occurs you may require a blood transfusion. There is, as you probably know, a small chance of getting AIDS and/or hepatitis from a blood transfusion. We ask our patients to donate their own blood and/or have their families donate blood for them, if they have the right type. My staff will discuss this with you. We use a machine to recover some blood lost during and after surgery and can give that back to you, reducing the need for transfusion. Nerve and blood vessel damage can occur, but in my experience, is quite rare. Severely deformed knees are more likely to have this type of complication.

We do everything we can to prevent all the above complications and to relieve pain. In spite of that, complica-

tions still occur in a small percentage of cases and some patients experience more pain than they feel they should have.

HOW LONG WILL THE IMPLANT LAST?

The life of the implant is difficult to predict with certainty. The life span of today's implants are longer than they were 10 – 15 years ago. Factors which have a negative impact on the life of an implant are:

- young age (due to high activity level)
- excessive weight
- inappropriate work activities which require you to be on your feet constantly
- running, jumping and excessive walking.

Patients over 65 years of age with moderate to low demands and normal weight can reasonably expect the implant to last as long or nearly as long as they do. On the other end of the spectrum, a patient in his or her forties, overweight, with high demand activity level can expect an earlier failure, possibly as early as 5 – 10 years after surgery.

Please note: It is important that you take prophylactic antibiotics if you require dental work or surgery on your stomach, intestine or gallbladder. If you become ill with a fever, be sure to tell your doctor that you have had a total knee replacement.