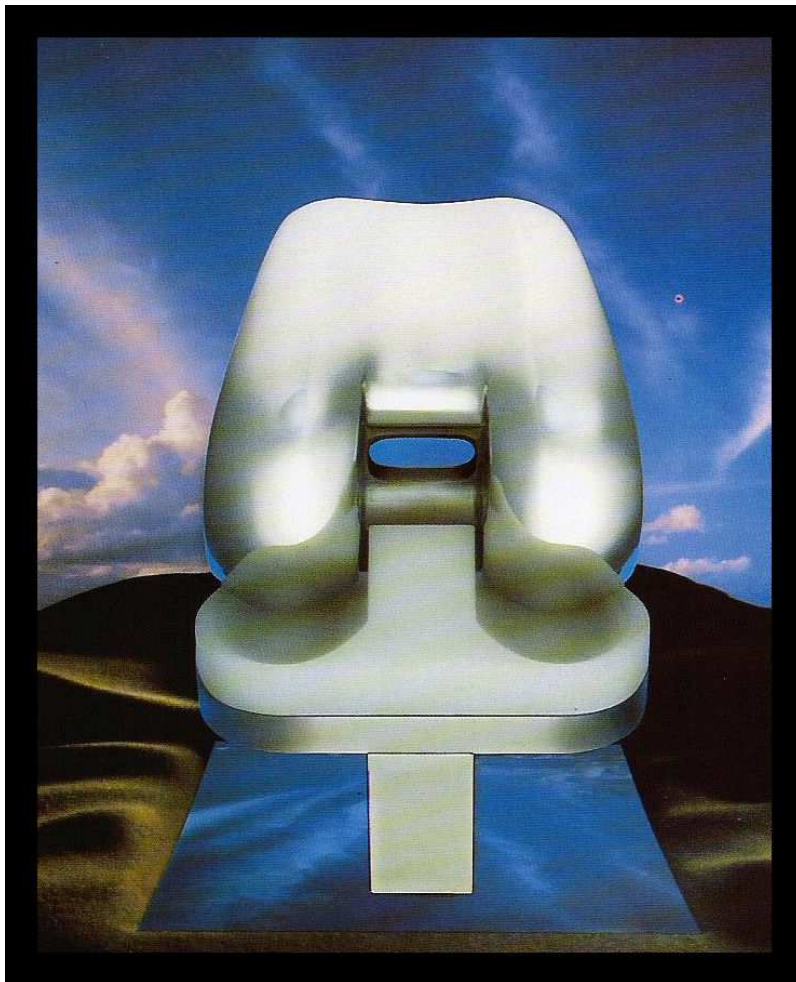
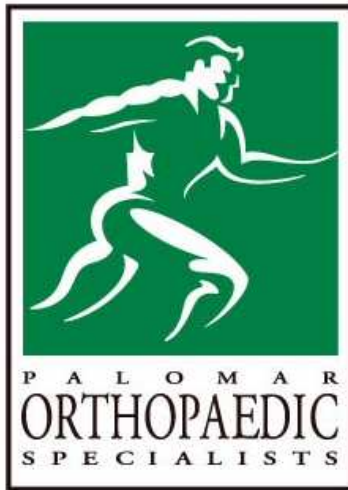




## **Total Knee Arthroplasty**

**[www.PalomarOrtho.com](http://www.PalomarOrtho.com)**





## Total Knee Arthroplasty

### The Indications:

The indications for joint replacement are **Pain** and **Loss of Function**. Joint Replacement Surgery is warranted when degeneration and destruction of the knee creates disabling pain and severely limits the functional use of the extremity. X-rays are used to confirm the degeneration and destruction of the knee but a “bad-looking” X-ray is not an indication for surgery. Doctors are supposed to treat patients and not treat X-rays. The patient’s symptoms of pain and loss of function are the indications for surgery; the X-rays only serve to help identify the diagnosis and to guide the appropriate treatment.

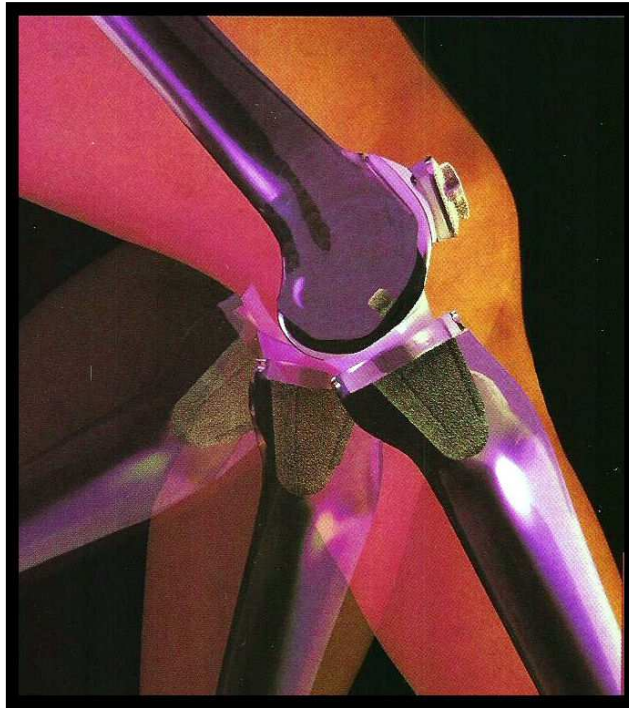


## The Benefits:

Joint Replacement Surgery is designed to relieve or reduce your knee pain and to improve the function and performance of your knee. It is a highly successful procedure which has a >97% success rate and satisfaction rate. > 90% last 20 years or longer.

## The Procedure:

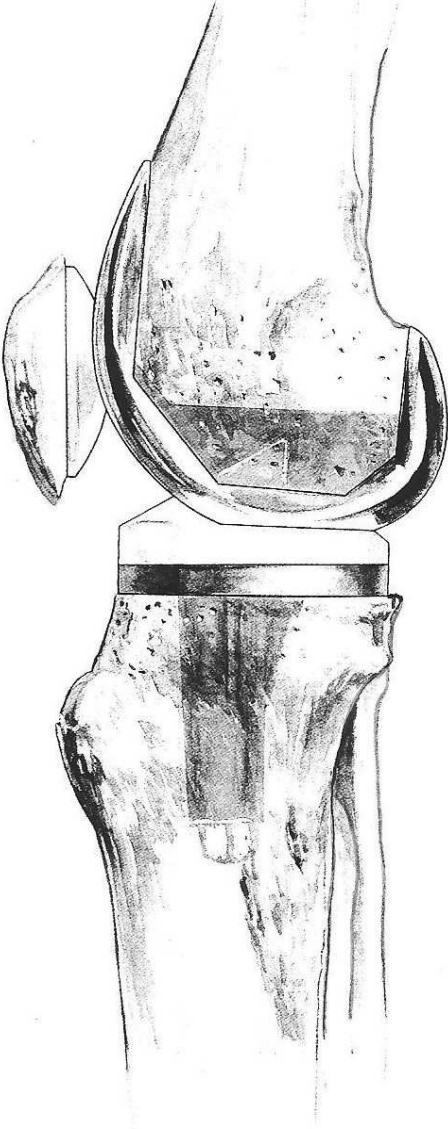
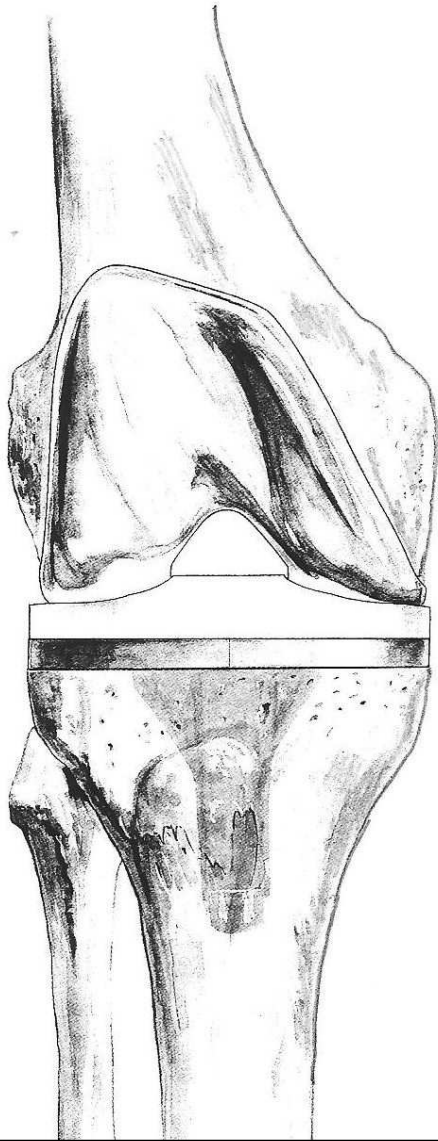
The term “*Total Knee Replacement*” is a misnomer. The knee is not being totally replaced; rather, the knee is simply being **Resurfaced**. Only the worn-out arthritic ends of the femur (thigh bone), tibia (shin bone), and patella (kneecap) are removed and replaced. Less than half an inch (~9mm) is removed from the ends of the bones and being replaced with metal and plastic caps, the TKA components.

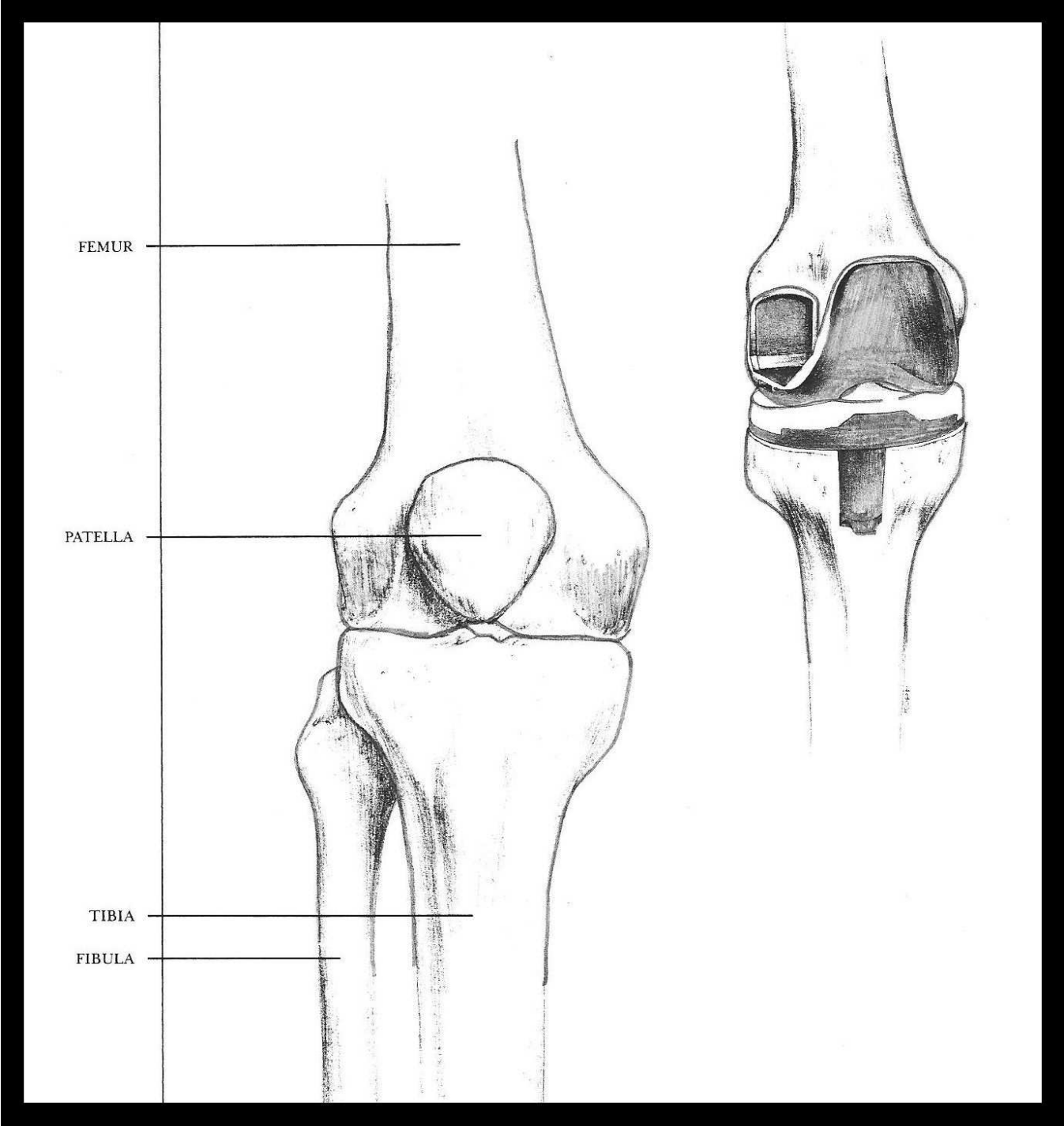


**Total Knee Replacement** is a Resurfacing and Realignment procedure. It is “*Human Carpentry*” in which the rough, arthritic, painful joint surfaces are removed and replaced with smooth-gliding metal and plastic surface components while the ligaments are realigned and balanced to straighten the knee. The procedure is designed to produce a pain-free stable knee that delivers better motion and better performance than your preoperative arthritic knee.

**Total Knee Replacement** or **Total Knee Arthroplasty** is an implant procedure performed under general or spinal anesthesia. The operation lasts approximately two hours during which the damaged joint surfaces are resected and replaced with the metal and plastic implants.

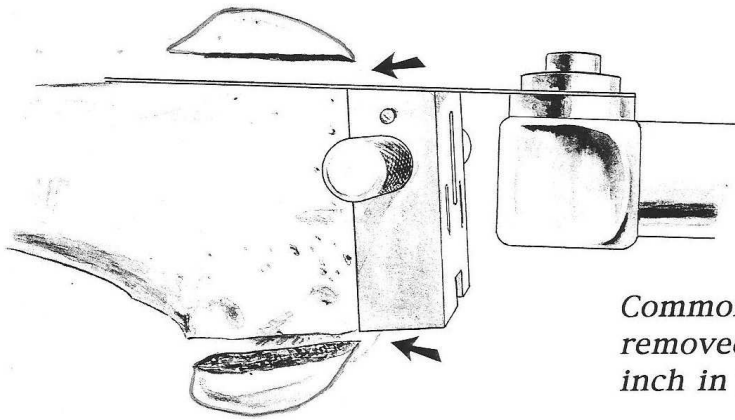
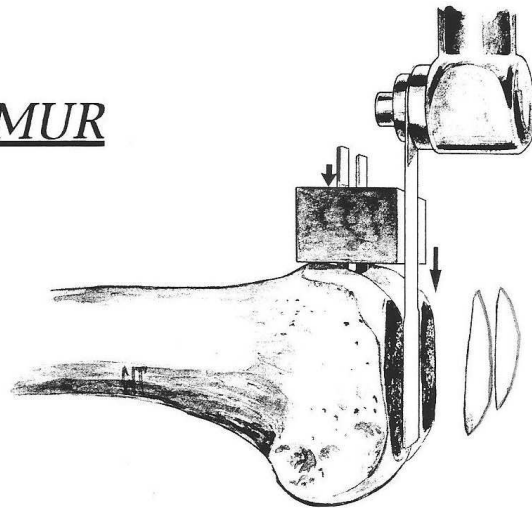
# Surgical Technique



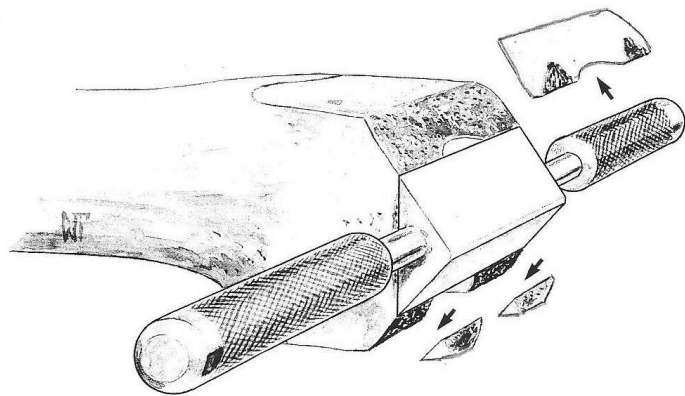


## THE FEMUR

*Precision saw cuts are made to remove only the portions of bone that are covered with the diseased, arthritic cartilage.*

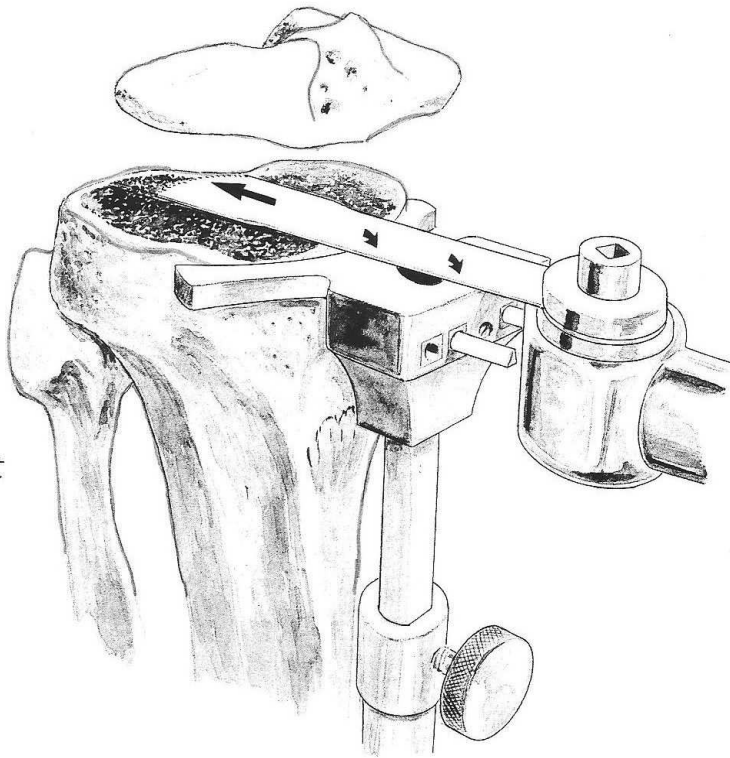


*Commonly, the amount of bone removed is less than one-half inch in thickness.*



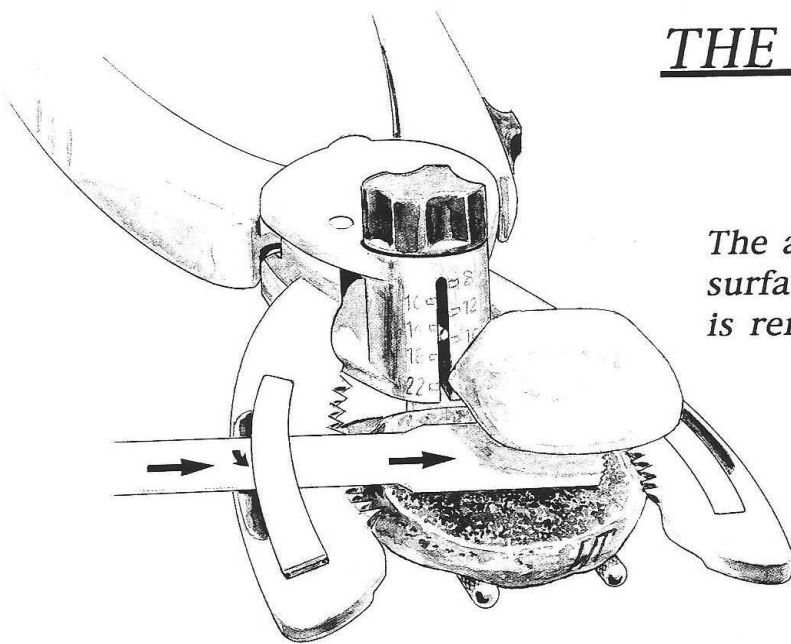
## THE TIBIA

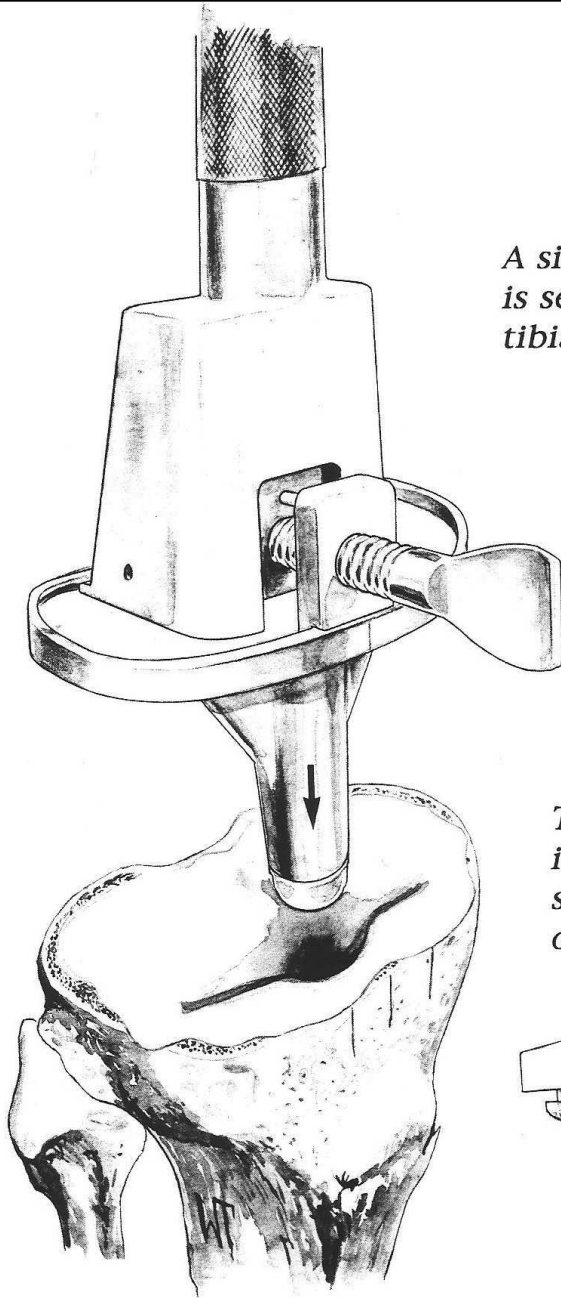
*The degenerated joint surface of the tibia is removed.*



## THE PATELLA

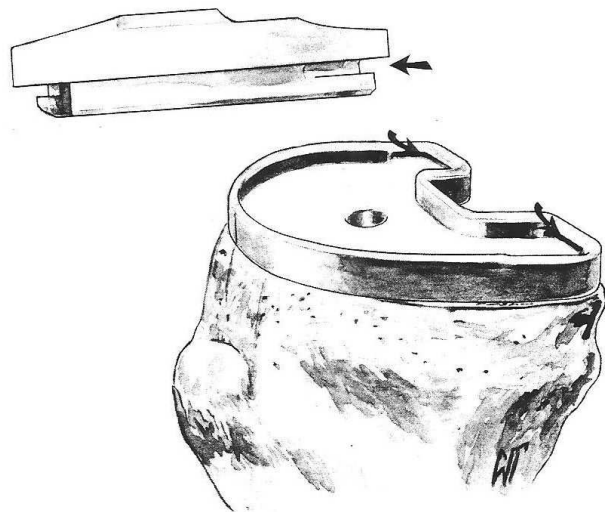
*The arthritic joint surface of the patella is removed.*





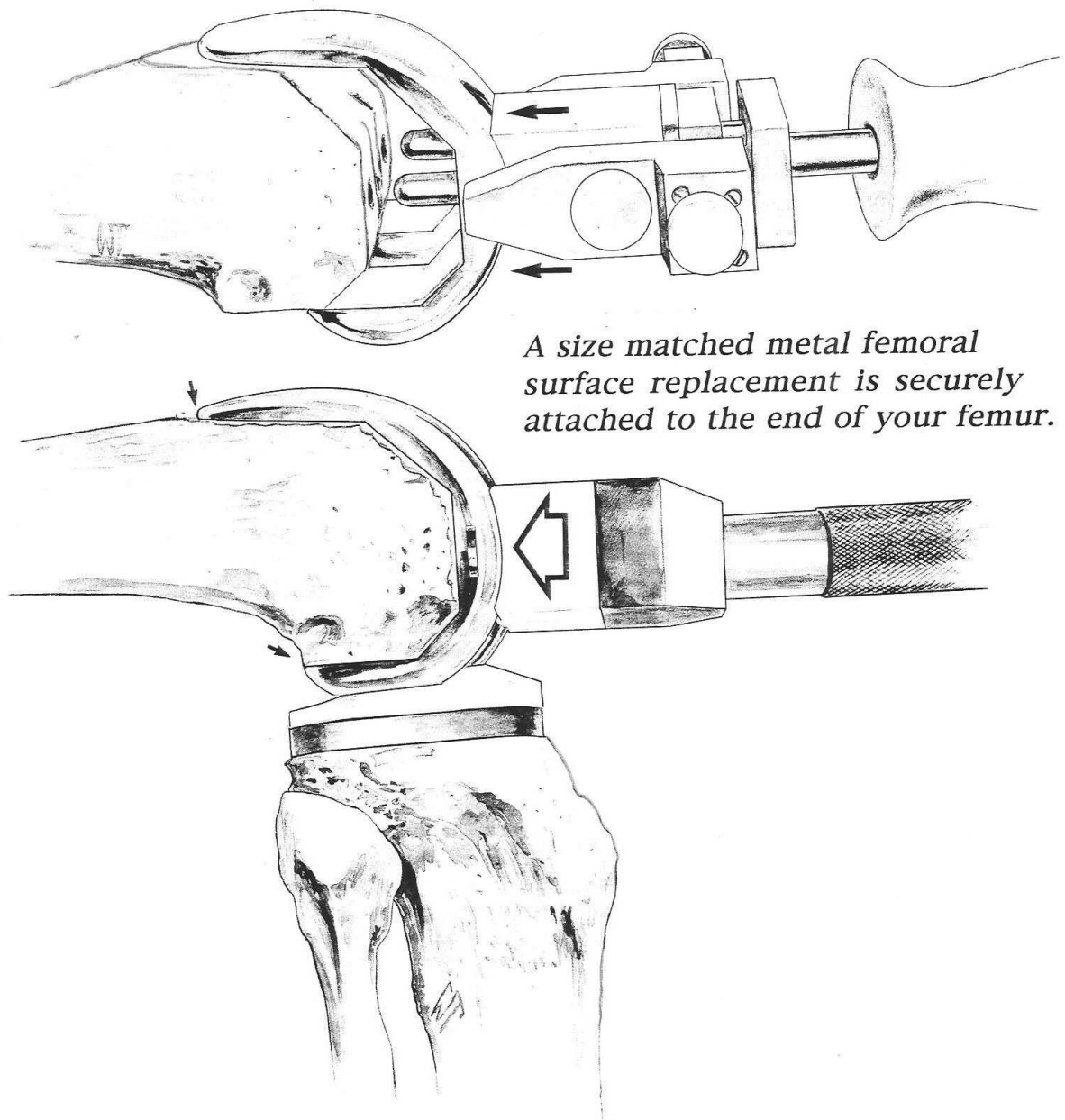
*A size matched metal tibial plate is securely fixed to the top of your tibia.*

*Then a plastic spacer component is attached to the tibial plate to sit between the metal components of the femur and tibia.*



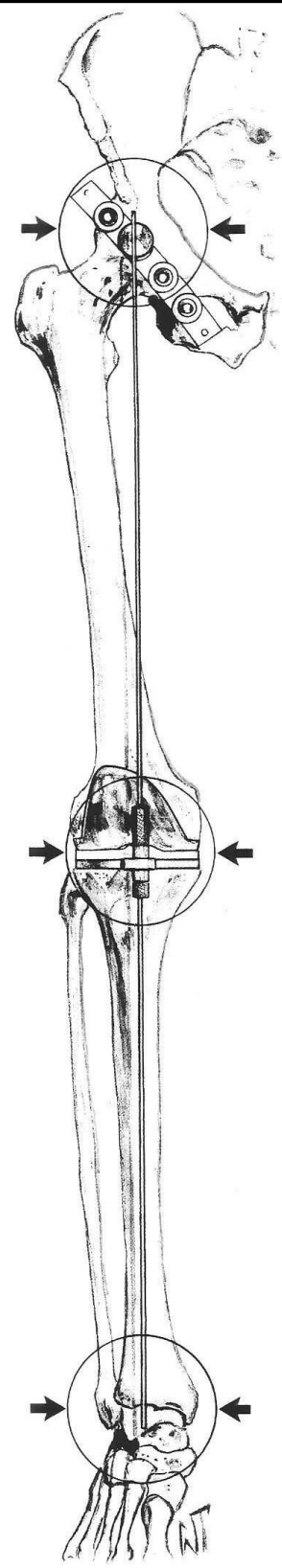
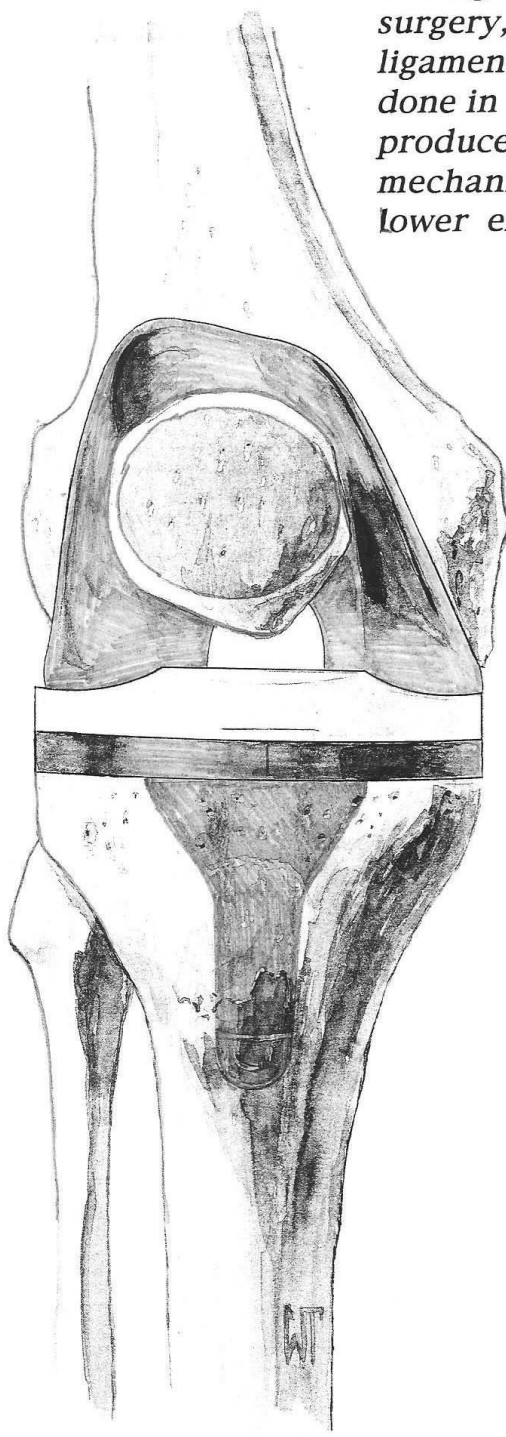
*An all plastic patella component is secured onto the knee cap.*

## IMPLANTATION



*A size matched metal femoral surface replacement is securely attached to the end of your femur.*

*During knee replacement surgery, the bone cuts and ligament balancing are done in such a way as to produce a straightened, mechanically improved lower extremity.*



## The Risks:

As with any surgical procedure, there are risks associated with joint replacement surgery. This information is not meant to frighten or alarm you; rather, it is provided to make you better informed about the procedure. Keep in mind that **the complication rate of this procedure is extremely low (~1%) and the success rate is extremely high (>97%).**

### **Infection:**

Whenever an incision is made in the skin, the body's barrier to infection is violated. During **Total Knee Replacement** surgery, sterile surgical technique and special gowns are used to minimize the chance of a wound infection. Intravenous antibiotics and antibiotic-impregnated implants are used to help prevent infection as well. Minor wound infections after surgery can often be treated with local wound care and antibiotics; however, should a deep infection occur, you may require subsequent operations, which could include removal of the implants, in order to resolve the infection. The chance of a deep infection is less than one in a hundred.

### **Thromboembolism:**

Limb manipulation during surgery and post-operative decreased activity can induce blood clots to form in the veins of your legs. Blood clot formation can cause prolonged pain and swelling. The blood clots can also break loose and travel to your lungs causing chest pain or even death. Blood thinning medications will be given to you to minimize the risk of blood clot formation. The risk of developing a blood clot is less than one in a hundred.

### **Mechanical Failure:**

Joint Replacements are components that are manmade and implanted by people. They are occasionally subject to human imperfections. Not all knee replacements are successful for all people all of the time. Due to individual variances in human anatomy and the limitations of engineering and implanting these artificial joint surfaces, sometimes they do not function in an optimum fashion. In those instances, it may become necessary to re-operate to revise or modify the implanted components. The risk of mechanical failure or malalignment is less than one in a hundred.

### **Other Risks:**

Other rare complications that can occur include: persistent knee pain, stiffness and loss of motion, swelling, scarring, bleeding, discoloration, numbness, nerve injury, fracture, skin necrosis, injury to surrounding tissues, joint instability, arterial injury, suture reactions and complications due to anesthesia.



## The Post-Op Course:

**Total Knee Replacement** is generally an inpatient procedure. You should plan on being in the hospital for 3 or 4 days.

Immediately after the surgery, you will be placed in a CPM (Continuous Passive Motion) machine which will passively move your knee through a range of motion while you are in bed. Physical Therapy is started on the day after the surgery and it involves joint mobilization, transfer training and walking. You will initially train at using a walker for transfers and walking. You may later transition to using crutches or a cane.

If you can achieve a knee range of motion of 0 – 95 degrees, safely perform transfers and walk well, you will be discharged from the hospital and sent home with help to continue your recovery. If you seem to need more time to meet those goals and / or if you do not have sufficient help at home, you will be transferred to an extended care rehabilitation center where you will continue your rehabilitation until you are safe to be discharged home.

Within two weeks, you will become very independent in your activities and you will have returned to near your preoperative functional capabilities in activities of daily living. You will continue your rehabilitation through outpatient physical therapy and a home exercise program. Golfers often return to their recreational participation within four to six weeks.

After hospital discharge, you will have regular follow-up visits at my office so that I can monitor your healing and guide your rehabilitation and activity until you achieve maximum medical recovery.

