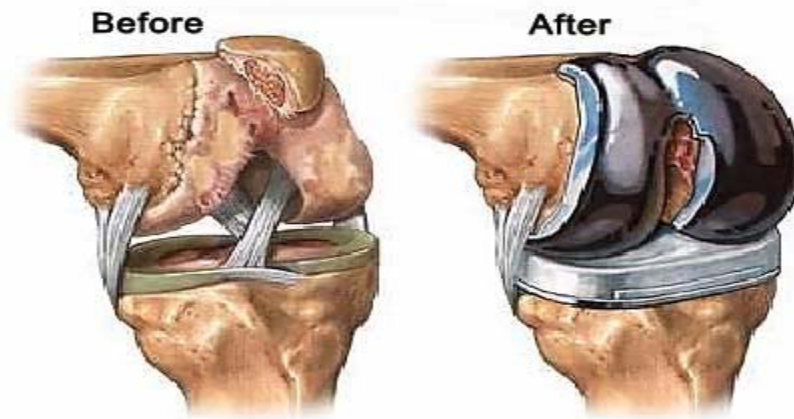


Your Total Knee Replacement Surgery



ADAM



The Knee Replacement Program D. Gordon Newbern, MD

600 S. McKinley Street, Little Rock, AR 72205
1525 Country Club Road, Sherwood, AR 72120
(501) 666-2824
1-800-550-5755

Dear Patient:

We're pleased you have chosen Arkansas Specialty Orthopaedics for your Total Knee Replacement. This booklet has been written especially for you to help you prepare for your surgery and recovery.

You won't go through surgery alone; it will be a team effort. **You** are part of a team of health care professionals whose goal is to help you.

This team is made up of:

You

The orthopedic surgeon

The anesthesiologist

The internal medicine specialist

The nurse practitioner or physician assistant

The nurse or medical assistant

The physical therapist

The social worker

The dietician

Our goal is to help you improve the quality of your life. It is up to you to learn about your knee replacement and to follow the advice of your surgeon and other health care professionals. We care about you and want to follow your progress for the rest of your life.

Sincerely,

D. Gordon Newbern, MD

P.S. For more information on other hip and knee problems that I treat, please feel free to visit my website.

www.jointreplacementarkansas.com

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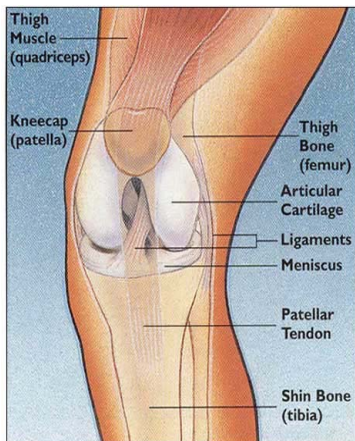
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Special Note:

A large portion of this material is borrowed from Dr. Merrill Ritter, my fellowship training mentor, with his permission. It is intended for informational purposes for our joint replacement patients only. Please do not copy or mass distribute this booklet without permission. Thank you!

Chapter 1:

Your Knee and How it Works



Normal Knee Anatomy

When a knee becomes diseased or injured, simple movements can be painful and take the joy out of life. Most people want relief from the pain and disability caused by severe arthritis. Your reasons for having surgery are very personal. Only **you** can finish this sentence: "If I didn't have pain I would...." You and your doctor have decided that total knee replacement surgery may help relieve much of your pain.

The main benefit you may expect from total knee replacement is pain relief. Most patients will notice some soreness for several weeks or months after surgery. In most cases, however, pain-free motion of the knee joint will follow.

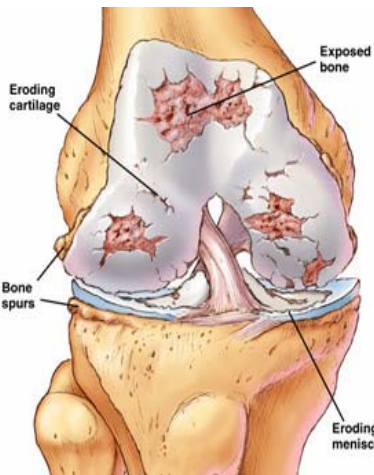
The "Normal" Knee

A joint is a special structure in the body where the ends of two or more bones meet. The thigh bone (femur) and the shin bone (tibia) meet to form the knee joint. The knee cap (patella) covers and protects the knee joint. The joint lining (synovium) makes fluid that lubricates the joint. Cartilage covers the ends of the knee bones. This cartilage "cushions" the knee for smooth easy movement. The knee, a major weight-bearing joint, is held together by muscles and ligaments that allow your leg to

bend and straighten so you can walk and climb stairs.

The "Problem" Knee

When a knee is diseased, such as with arthritis, the cartilage wears away. The bones become rough and grind together, causing pain.



Osteoarthritis of the Knee

There are many different types of arthritis. One major type is osteoarthritis, which is also called degenerative joint disease, or the "aging arthritis". Another form, rheumatoid arthritis, is a chronic disease that affects many parts of the body. There can also be joint destruction due to loss of blood supply (osteonecrosis) or from injuries (traumatic arthritis). After your condition has been diagnosed, and if other medical treatments have failed to help you, the orthopaedic surgeon can replace your diseased joint and soon relieve your pain. Total knee replacement is not done for minor arthritis pain.



Total Knee Replacement

Your New Knee

Total knee replacement surgery involves removing and reshaping the diseased portion of the knee joint. An artificial knee, known as the prosthesis, replaces it. There are three parts (components) to an artificial knee. The **femoral** part fits on the bottom of the thigh bone. The **tibial** part fits on top of and covers the shin bone. These parts are usually cemented in place. The **patellar** part covers the underside of the kneecap. These parts are made of metal and plastic. Special instruments are used to shape the bones for an exact fit, which is important for smooth, pain-free movements as the knee bends and straightens. Your orthopaedic surgeon will decide whether you will need just one or all three of these parts. The surgery usually takes between one and one-half hours for one knee joint or two and one-half hours for two knee joints, depending on the condition of your knee.

Chapter 2: Identification of Risks



An internal medicine specialist will examine you on pre-admission screening day to help us identify your health risks.

Pre-Operative Evaluation Day

The key to our program is the identification of risks and the prevention of complications. As with any major surgery, there are certain risks. That is why you will be examined by an internal medicine specialist on Pre-Operative Evaluation Day. We can identify your health risks with a physical examination and by taking your medical history. If the risks are high, the decision to have or not have surgery will be discussed with you by the doctors. We may recommend:

- You have additional special testing, which may or may not delay your surgery.
- You may not have surgery at all until the risks are brought under reasonable control.

Examples of increased risks are obesity, heart and lung disease, tooth and gum disease, infection, or other health problems. However, you can reduce your risks before surgery!



You should STOP smoking!



You increase your chances of having a surgical complication if you are overweight.

Preparing for Surgery at Home

Before entering the hospital, you must be aware of several factors that can affect the success of your knee replacement.

Tooth and Gum Problems

Tooth and gum problems, a frequent source of infection, can allow bacteria to enter the blood stream. If you haven't had a dental checkup for the past six months, you should see a dentist and have any needed dental work completed before going into the hospital. Continue to brush regularly to keep your teeth and mouth clean.

Smoking

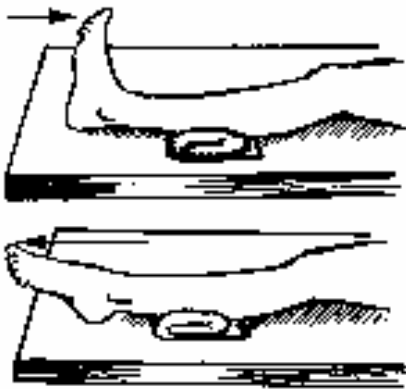
We recommend that you STOP smoking to decrease the chances of lung complications during and after surgery. The hospitals are smoke-free facilities. There is no smoking allowed within the hospital buildings.

Nutrition

Being overweight increases your chance of having complications such as infection, poor healing, or blood clots. You may have been told to lose weight; however, crash dieting will not reduce your risks. We recommend a nutritionally sound diet including the four major food groups: dairy products, meats and fish, grains and cereals, and fruits and vegetables.

Exercise

Physical activity is good for everyone. Daily exercise helps you control your weight by burning calories. It improves your overall health, and makes you feel both physically and emotionally better. Physical activity can also reduce daily tension and stress. You can begin doing the following exercises at home before surgery to stretch and strengthen your muscles. We recommend that you begin with ten repetitions for each leg, two to three times a day if it does not aggravate your pain.



Ankle Pumps

1. Ankle Pumps
 - A. Lie on your back or sit in a chair.
 - B. Slowly move your feet up and down by bending at your ankles.
2. Quadriceps Set
 - A. Lie on your back with your legs straight.
 - B. Tighten your thigh by pushing the back of your knee into the bed.
 - C. Hold the muscle contraction for a slow count of five.
3. Gluteal Set
 - A. Lie on your back.
 - B. Tighten your buttocks together.
 - C. Hold the muscle contraction for a slow count of five.

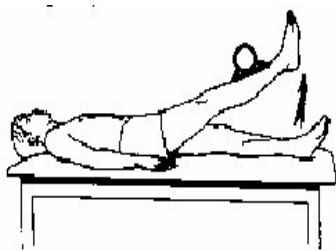


Hip and Knee bending

4. Hip and Knee Bending
 - A. Lie on your back with your knee straight.
 - B. Bend your knee by sliding your foot toward your buttocks as far as you can.
 - C. Then return to the starting position with the knee straight.

5. Terminal Knee Extension
 - A. Lie on your back with a pillow or rolled towel under the knee.
 - B. Tighten your thigh muscle and lift your foot off the bed until your knee is straight.
 - C. Slowly lower heel to bed.

6. Extension Stretch
 - A. Lie on your back.
 - B. Prop your ankles up on a 6" blanket roll.
 - C. Tighten the muscle on the front of your thigh to push the back of your knee down toward the bed and make your knee as straight as possible.
 - D. Hold the contraction for a count of five (5).
 - E. After doing 10 repetitions relax your knee and let it hang straight for 5-10 minutes.



Straight Leg Raise

7. Straight Leg Raise
 - A. Lie on your back.
 - B. Tighten your thigh to lock your knee, and then lift your straight leg up one foot from the bed.

- C. Slowly lower your leg, keeping your knee straight.
- D. You may bend the opposite knee if the exercise bothers your back.

Complications Associated with Total Knee Replacement

As with all surgical procedures, there can be complications. Infection, pneumonia, and blood clots are some of the possible, although unlikely, complications that can occur.

INFECTION occurs in slightly less than 1 out of 200 patients.

Prevention:

1. Using a special sterile operating room environment
2. Using pre-operative antibiotics
3. Using antibiotics when under-going future dental work or surgical procedures

Treatment:

1. Antibiotics
2. Removal of the prosthesis and six weeks of antibiotics before the prostheses is reinserted.



The laminar flow operating room environment helps prevent infections.



Coumadin or Heparin during the first 21-28 days after surgery to prevent blood clots.

BLOOD CLOTS in the deep veins of the leg (thrombophlebitis) occur in approximately 5 out of 100 patients (5%)

Prevention:

1. Support hose
2. Walking as soon as possible after surgery
3. Using Coumadin or Heparin during the first 10-20 days after surgery
4. Ankle pump exercises
5. Riding in a car no longer than 45 minutes without stopping and stretching

Treatment:

1. Observation
2. Not sitting in certain positions
3. Heating pad
4. Blood thinning medicine
5. Elevation of legs in bed

BLOOD CLOTS that occur in the thigh or pelvis may break loose and travel to the lungs where they can cause breathing difficulty or death.

Treatment:

Requires hospitalization



Frequent circulation checks can help prevent nerve damage

NERVE DAMAGE may occur in 25 out of 10,000 patients (0.25%). This is observed as a complaint of numbness or weakness in the foot.

Prevention:

1. Frequent circulation checks by nurses
2. Frequent changes in position

Treatment:

With time, these nerves will usually function normally again.

LOOSENING OF THE PROSTHESIS occurs in 5% of our patients over a 10-year period of time.

Prevention:

1. Maintain ideal body weight
2. Follow the lifetime movement restrictions listed in Chapter 12

Treatment:

Will probably require surgery at some time

DISLOCATION OR FRACTURE of the kneecap occurs in less than 3% of patients.

Prevention:

Follow the physical therapy exercise program.

Treatment:

1. Physical therapy
2. May require further surgery

ALIGNMENT

All attempts will be made to realign your knee into a straight (neutral) position. In some cases, however, the surgeon may feel that realigning your knee to neutral would require too much surgery for the circumstances. Therefore, the alignment of your knee may not be in a perfectly straight position after surgery.

MANIPULATION

To improve your knee's range of motion (the amount your knee bends), your surgeon may have to perform a manipulation of your knee replacement. This procedure may be necessary 4 to 16 weeks after surgery. A manipulation is done in the operating room, with the patient under general anesthesia. There is a less than 1% chance that a manipulation will become necessary. You can greatly reduce your chance of having to undergo a manipulation by strictly following the exercise regimen you will learn in the hospital after your knee replacement surgery.

REVISION SURGERY

This is surgery performed to replace a loose knee replacement. When you have surgery to replace a loose total knee replacement, your chances for experiencing a complication are increased. With revision surgery the complication rates are increased as follows: infections 2-5%; blood clots 10-15%; nerve damage 2%; bone fractures 1-2%;

dislocation 15-20%; loosening over 10 years 10-15%.

PAIN

There is a 2-5 % chance that your pain will not be relieved or that you may develop a different type of pain following your surgery.

Despite the complications above, there is still a 98% success rate for knee replacement surgery.

Chapter 3: Consent Forms



Consent Forms

You will be asked to sign the following consent forms to show that you have been given and understand the information you need to decide to have surgery. We want you to be informed before you sign these forms. If you have any questions, please ask.

1. **Informed Surgical Consent**-This is for the hospital record.
2. **Informed Consent for Blood Product Transfusion**-This is your consent for you to be given a blood transfusion should one become necessary.
3. **Authorization of Medical Care**-This is general permission to care for you while you are a patient in the hospital.

Chapter 4: Blood Donations



**Autologous blood
donation**

Autologous Donations

This is blood that you have donated over a period of several weeks to be stored in case you need it during or after surgery.

During the time of donation, we ask that you take an iron pill to help build up your blood. Keeping your diet high in protein and iron will also be helpful.

Directed Donations

This is blood that is donated by someone else for your use if needed. The blood type of the patient and the person donating **must match**.

Your surgeon must order all blood donations. We will provide you with information and answer any questions you may have about blood donations, but you must make the appointment for autologous donations yourself at your nearest chapter of the Red Cross.

Chapter 5: Pre-Operative Evaluation Day



**You will participate
in the Joint Academy
education class**

This half-day program is designed to prepare you physically and emotionally for surgery and recovery. Included in this program are:

- A physical exam by an internal medicine specialist, who will document your medical history
- Laboratory tests, chest x-ray, and EKG (heart test)
- Discussion/explanation of discharge plans
- An education program (Joint Academy) explaining total knee replacement and what to expect from your surgery

How to Prepare

- Bring your prescription medicine lists
- You may eat breakfast and take your medication before arriving. You may want to bring your pain medicine
- Wear comfortable, easy to change clothing for your physical exam and EKG **(avoid back zippers and panty hose)**
- Write down any questions and bring them with you

- Bring a list of all your allergies
- Bring a family member or friend (this will help them help you!)
- Arrive promptly at your designated time for preoperative testing and for your medical evaluation
- You should expect this process to take 3 to 4 hours before completion

Chapter 6: Admission Day

How to Prepare

- Bring this booklet to the hospital with you
- While in the hospital, the physical therapy department will provide a walker or crutches for you. Do not bring your own to the hospital.
- You will need to bring your own sleepwear. Please bring a knee-length robe. For your trip home, bring low-heel shoes and loose-fitting clothes that are easy to put on.
- Bring personal care items: a toothbrush and toothpaste, shaving equipment, deodorant, and a comb. (ALL electrical appliances must be checked with our maintenance department prior to use.) DO NOT bring valuables such as credit cards, cash, or jewelry. Lock boxes are available upon request at no charge. DO NOT bring your medication unless it is eye drops, inhalers, or nasal spray.
- Notify family and friends that you may be reached through the hospital switchboard from 7:00am to 9:00pm at St. Vincent (501) 552-3000 or at Baptist Memorial Medical Center (501) 202-3000.

The hospital address is:
St. Vincent Infirmary Medical Center
2 St. Vincent Circle
Little Rock, AR 72205

Baptist Memorial Medical Center
333 Springhill Drive
North Little Rock, AR 72114

At both St. Vincent and Baptist Memorial, private rooms are provided for total joint replacements. A chair will fold out to allow one family member or caretaker to stay with you overnight, if you desire.

Checking In

Please arrive promptly at the scheduled time at the **outpatient**/admissions unit. This will be two hours prior to your scheduled surgery time to allow adequate time to prepare you for surgery. You will receive an identification bracelet and will be escorted to the preparation area.

The operating room staff, anesthesia staff, and other hospital personnel will visit you and confirm the planned surgery, prepare you for surgery, and answer questions.



A nurse will measure your vital signs



The dietetic staff will serve you meals

Nursing Assessment/Teaching

Once you are in your room, a member of the nursing staff will orient you to your room. A brief history and physical exam will be done by a nurse to permit the hospital staff to better care for you. This will include measuring your height, weight, and vital signs (blood pressure, respiration, pulse rate and temperature). You will be shown how to use a breathing machine (incentive spirometer). The incentive spirometer is an exercise tool for your lungs to help maximize airflow and prevent pneumonia after surgery. You will be measured for and supplied with surgical support hose. The nurses will also review with you the information you were taught on Pre-Operative Evaluation Day.

You will have an intravenous catheter started in the preparation area. Through this IV, you will be given an antibiotic before surgery. Everyone will have an IV after surgery, through which fluids, antibiotics, and pain medicine will be given.

Meals

On the evening before your surgery, you should eat a regular meal, but you should not eat or drink anything, even water after 12:00 midnight the day before your surgery.

The hospital dietician will visit you on admission day. You will be asked about your food preferences, as well as any special diet

needs you may have (such as diabetic, low salt, or low cholesterol diets).

Doctor's Visit

You will meet your anesthesiologist who will discuss the anesthetic with you and answer your questions.

Social Work Visit

While you are in the hospital, you will be visited at least once by a social worker that will assist you in understanding and participating in your rehabilitation program. You may request a visit from a social worker at any point in your stay. The social worker can assist you in your rehabilitation outside the hospital with information about convalescent care, home health care, and special equipment.

A part of your rehabilitation will be dealing with the variety of emotions you may experience by the change in your physical health. A social worker can provide objective listening and support contacts for you after you leave the hospital.

Chaplain services are also available upon request.

Helpful Note

Providing your insurance company phone numbers, the name of case managers and any other benefit information will assist us should you need post-hospital services.

Chapter 7: The Day of Surgery



**Operating room
entrance**

On the morning of surgery, do not use deodorants, perfumes, shaving or skin lotions. You should remove all hairpins, nail polish (finger and toe) or artificial nails, and jewelry. Wedding rings may be left on, but must be taped. Please give all your valuables to your family; we cannot be responsible for them.

About one hour before surgery you will be asked to empty your bladder, you will then return to bed. You will remain in bed until surgery personnel arrive to take you to the operating room on a bed. Dentures, hearing aids, and glasses should be removed at this time. Your family may go with you as far as the surgery hallway. From there they will be directed to the surgery waiting room where they should stay until your operation is over so your surgeon can talk with them. The family should notify the waiting room receptionist if they leave the area.

Many patients receive an epidural block catheter placed by the anesthesiologist in the holding area about 30 minutes before surgery time. They will explain this recommended way to control your postoperative pain.



**Your family can
check on you
during recovery
by calling the
PACU**



Knee Immobilizer

Post Anesthesia Care Unit Recovery Room (PACU)

After your surgery, you will be moved from the operating table to your bed, and the anesthesiologist will take you to the PACU. In PACU, the patient must be “settled in” by the specially trained nurses. Your blood pressure, heart rhythm, and dressings will be checked frequently. There will be other patients in PACU. It may be one or two hours from the time the surgeon talks to your family before you will be ready to leave the PACU and transported to your hospital room at which time you will be able to see your family.

Your family can call PACU at St. Vincent’s (501) 552-2495 and at Baptist Memorial (501) 202-3690 anytime and talk to the nurse taking care of you. If your family is large, one or two members should do the calling and share the information with the rest of the family. This allows the nurses to give all of their attention to the care of their patients.

When you wake up from surgery, you should expect to feel tired and groggy. Your knee will be covered with thick, bulky dressings held in place with elastic bandages that wrap around the top of your thigh and down your leg to your toes. This helps to control bleeding and swelling. You will be wearing a surgical hose on your non-operated leg. Your operated leg will be placed in a “space

boot” or in a knee mobilizer. This helps hold your leg in the proper position and helps prevent pressure sores on your heels. This boot will be removed when you’re comfortable without it. However, if at any time your heel begins to burn, or if you have difficulty moving or lose feeling in your toes, you should tell the nurse **immediately**.

When you wake up in PACU, you will notice that a catheter (a flexible tube) was placed in your bladder. This is to drain urine and will be in place for one to two days.

Surgical pain is felt differently by everyone and you should expect to feel some discomfort after your surgery. After surgery you will use a Patient Controlled Analgesia (PCA) machine for IV morphine or IV demerol or you will have an epidural PCA machine. These machines allow you to give yourself your own pain medication. Once you are awake enough a button will be placed within your reach. When you feel pain you just push button. The medicine is fed into your IV or epidural catheter. There is a limit programmed into the machine so you cannot take too much medicine. Pain medicine works better on mild pain than on severe pain, so do not let the pain get too severe. You may use the PCA machine for two to three days; after that, you may ask for pain medicine. Pain medicine is available throughout your hospital stay.



The PCA machine

Chapter 8: The Nursing Unit

Once you have reached the nursing unit, the nurse will check your vital signs. On the second day after surgery, the dressings over your incision will be changed and will be removed after several days when there is no more drainage. Also on the second day after surgery, the tube in your bladder will be removed.

The nurses will monitor your use of the PCA machine and you will be switched to oral pain medication the second or third day after surgery. We encourage you to use your pain medication because neglecting to take it will only slow your rehabilitation. If your medicine is causing you any discomfort or unusual feelings, please tell your nurse.

Following your surgery, if it becomes necessary for your surgeon to be out of town, his able physician associates will always be present to take personal care of you. Your specific needs will always be discussed between your surgeon and the medical team seeing you on a daily basis.

Each morning, your surgeon, physical therapist, social worker, nurse, and nurse practitioner will visit to review your progress and plan your on-going care. Use this time to ask questions.

Chapter 9: Physical Therapy

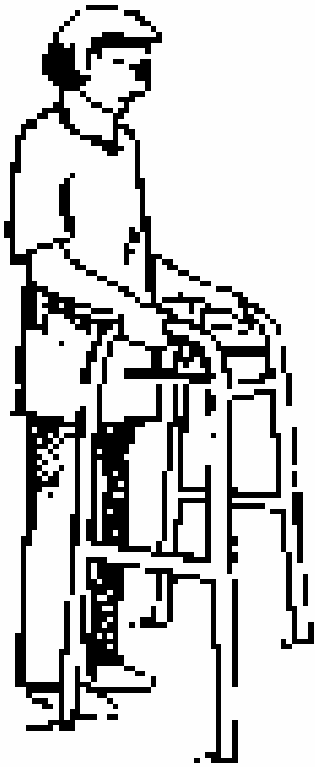


**Physical Therapy
begins on the first
day after surgery**

Physical therapy will begin on the first day after surgery to help you strengthen the muscles of your knee and to help you regain your knee's range of motion. The physical therapist will treat you and be responsible for guiding your rehabilitation efforts. Your physical therapy is never done for you, but along with you. You will be treated one time the first day. Thereafter, you will be seen by physical therapy personnel twice daily, except Sunday when there is no physical therapy. You will be expected to continue your rehabilitation program when physical therapy personnel are not available.

During your first treatment, you will be assisted to sitting on the side of the bed. If you are able to sit up without severe dizziness or nausea, the therapist will help you stand and walk with a walker. A walker is always used on the first day to provide more support. A walker will be provided for your use while you are hospitalized.

The therapist will give you a list of exercises and will explain how to do them. You should do all of your exercises 5 times each day. Exercise helps you stretch and strengthen your muscles, and also helps you become confident in your ability to use your new knee joint.



The physical therapist will show you the proper way to use a walker

By the second day after surgery, you will probably be able to sit, stand, and walk with assistance. These activities will be to your tolerance and you will not be instructed to do something you are physically unable to do, but you should know that the therapy will not be easy. It takes a lot of hard work on your part, but you can do it. Your sitting time and distance walked will be increased on a daily basis. You will be encouraged to sit up for meals and at other times during the day, but you should not sit longer than 45-60 minutes at a time without standing to change positions.

You're Making Progress!

Your therapy will continue to progress and you should be gaining a bit more independence each day. Your gait (the way you walk) will improve, and when your balance is good on the walker, you may be able to try crutches.

The choice between a walker or crutches depends, in part, on your preference, but also on what the therapist feels is the best option for you based on your age, strength, balance, and medical history.

The therapist will adjust your crutches and/or walker to fit you. These will be provided for you. If you already have a walker or crutches to use, we ask that you bring them in one time for the therapist to adjust them for you.

Chapter 10: Discharge Information



**Before discharge,
you should be able to
transfer in and out of
chairs without help**

Short Term Goals for Hospital Discharge

1. You should have relief from joint pain. You may still experience some discomfort from the incision and the swelling, but this will improve with time.
2. You should be able to bend your knee 75 to 90 degrees. The ability to bend your knee at least 90 degrees is necessary for you to sit in a chair and rise from it comfortably. You may eventually be able to bend your knee 110 degrees.
3. You should be able to transfer, without help, in and out of bed, in and out of chairs, and on and off the toilet.
4. You should be able to walk while using your crutches or walker on level surfaces (without help) and on steps (with help).
5. You should understand the lifetime movement restrictions listed in Chapter 12. If you have difficulty in any of these areas, the therapist will instruct the person who will be helping you at home in ways to assist you. If you have chosen to stay in an extended care facility for a short time before going home, the above goals can be reached there. If you need a therapist to visit you in your home or if you need to attend outpatient therapy in your hometown, our case managers can help you make these arrangements.

Often, family members can provide the necessary assistance. Your surgeon will recommend that you have live-in assistance for at least 2-3 weeks after your hospital discharge.

Discharge Day

Your surgeon, therapist, and the rest of the hospital team will watch your progress in physical therapy and will check your medical status to decide when to release you from the hospital.

You will be given a prescription for pain medication and any other medicine your doctor has prescribed. You may take pain medicine before you leave the hospital to make your trip home as comfortable as possible.

You should have the following equipment:

1. Crutches and/or walker
2. Two pairs of surgical support hose

Insurance and/or Medicare will normally pay for 80% of **their approved** cost of either a walker or crutches, but not both.

The supplier for these items will file a claim with your insurance and send you a bill for the remaining amount. This bill is separate from the hospital bill. Of course, if you already have these items you will not need to buy them again.



Discharge Day

Chapter 11:

Home Instructions



Simple meal preparation is a good activity to ease into after surgery

On the average, most total knee replacement patients stay in the hospital for approximately three days after their surgery.

The recovery period after surgery depends on you, your health, and the knee that has been replaced. You may see and feel immediate benefits; however, you must continue to follow your rehabilitation program for several months to get the total benefit your new knee joint.

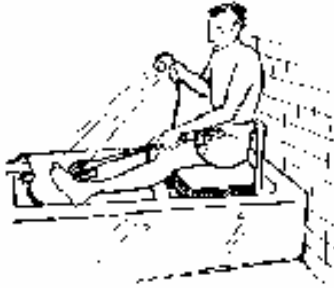
Activities of Daily Living for the First Eight Weeks after Surgery

Your activity level should **gradually** increase on a daily basis over the next eight weeks, beginning at the same level as in the hospital. Be careful not to overtire or overdo. Good activities to ease into are simple meal preparation, dusting, or washing the dishes.

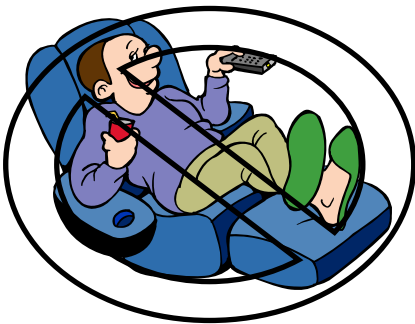
DO have someone help you with grocery shopping, family meal preparation, and laundry.

DO NOT vacuum, mop your floors, or lift heavy laundry.

DO NOT do strenuous yard work such as lawn mowing, raking, or bending, kneeling and stooping in the garden.



Sponge bathe daily until the staples are removed and steri-strips are placed over your incision.



DO NOT recline!

Bathing

DO sponge bathe daily until your staples are removed (12-14 days) and steri-strips are placed over your incision.

DO shower after the steri-strips have been placed over your incision for at least one day.

DO watch your balance. Have someone with you the first time you shower, if possible.

DO sit in a chair by the sink when you sponge bathe if you do not feel comfortable standing.

DO NOT sit in the bathtub.

Sitting

DO sit in a firm, straight-backed chair with arm rests. You may sit in a recliner, but you may not recline in it because your knees would be incorrectly positioned. When sitting, your knees should be straight and stretched out or bent as instructed by the therapist. You may recline after this eight week period.

DO sit up for meals and during the day.

DO work at straightening and stretching your knee when sitting. To do this, you will need to rest your feet on a stool that is slightly lower than the seat of your chair. Position yourself so your knee is not



Be sure to stand and stretch after sitting 45-60 minutes

touching the chair's edge. The kneecap should be pointing toward the ceiling. If you are positioned correctly, you will feel a stretch behind your knee. This may be tolerable to you for only a few minutes, but you should try to do this stretch many times during the day.

Do sit with your feet six inches apart.

DO NOT sit for longer than 45-60 minutes at a time without standing and stretching.

Walking

In order to protect your new knee joint and allow for healing during this eight-week period, you must walk with crutches and/or a walker as you were instructed.

If you have had only **one** knee replaced, you may begin using a cane in the hand **opposite** from your operated knee at four weeks after surgery if you do not limp.

DO stand tall with good posture. Walk with your head up, your feet pointing straight ahead, and stretch your knees as straight as possible.

DO walk frequently during the day. This is more important than walking long distances.

DO NOT walk without crutches, a walker, or a cane.

DO bear weight on the operated leg as ordered by your physician.

DO NOT stand or walk with your toes turned in.

Climbing Stairs

The therapists will show you how to go up and down stairs with your crutches or walker.

DO NOT go up long flights of stairs during this eight-week period.

DO have someone with you the first time you go up a long flight of stairs after the first eight weeks.

Sleeping/Resting

DO lie down flat on your back 5 times a day for short rest periods to prevent fatigue and to do your bed exercises.

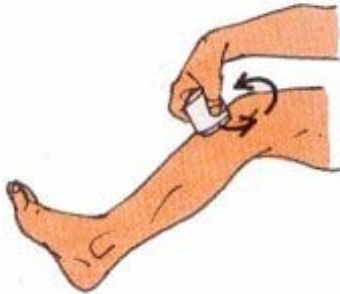
DO NOT put any kind of pad or pillow behind your knees unless you are elevating the entire leg and keeping your knee straight.

Daily Exercises

The exercises the physical therapist taught you should be continued as instructed until you return for your evaluation with the surgeon. To get the total benefit of knee replacement and to regain the quality of life that was once yours, you need to make a



Lie down for short rest periods during the day



**DO ice your knee
several times a day**



**We encourage you to
participate in
recreational
activities**

serious commitment to exercise and you must stay active. Consistent exercise is the key. You should continue your exercise program even on those days when it may seem difficult.

DO use an ice pack on your knee for soreness or pain for 20 minutes, several times a day.

Meals

DO eat a well-balanced diet so that your body has proper nutrition to help it heal and to restore strength. It is not unusual to have a decreased appetite following surgery. If you do notice a change in your appetite, you might find food more appealing by eating five small meals spaced throughout the day.

Recreational Activities

We encourage you to go out to eat, visit friends, go to church, and do those things that are part of your normal daily life as long as you are comfortable and not having pain. We ask that you wait until after your eight week evaluation and your doctor's "ok" before you return to such activities as golfing, swimming, riding a bicycle, bowling, dancing, boating, or horseback riding.

DO NOT participate in any sports that require any jumping, jerking, pulling, twisting, or running.

Riding in an Automobile

When getting INTO a car:

DO enter from street level rather than from a curb.

DO have the front seat moved back as far as possible. You may be more comfortable sitting on at least two pillows. This allows you to sit with your knees flexed and makes it easier to stand after sitting.

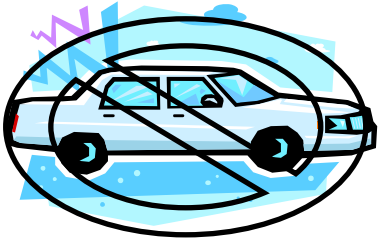
Do walk toward the seat then turn around so that your back is to the seat and your knee is touching the seat. Then sit down. Turn your body as someone helps you lift your legs into the car. Keep your knees moderately apart.

When riding in a car:

DO stop and rest. Stand up after 45 minutes to an hour of riding during the first car ride home.

DO take your pain medication before your first ride home.

DO NOT ride in a car for longer than 45 minutes without stopping and stretching.



**DO NOT drive during
the first 4 weeks after
surgery**

When getting OUT of a car:

DO turn your body as someone helps you lift your legs out of the car. Scoot and lean forward. Stand up on both legs to get your walker or crutches.

Driving

We recommend not driving until at least 4 weeks after surgery. Although the motions involved in driving are not harmful, twisting while getting into the car, as well as the risk of getting in an accident with sudden stopping, could have harmful results.

Blood Thinners

You will be placed on Coumadin or injectable heparin for the first 21-28 days after your surgery. This helps prevent blood clots in your legs.

Sexual Activity

Sexuality is an important part of life. Illness, surgery, medications, and stress can temporarily alter sexual function. We strongly advise against intercourse for four to six weeks after surgery to allow your joint capsule and muscles to heal. When you resume sexual intercourse, those positions that were comfortable to you before surgery will probably be most comfortable to you now. Sometimes you may be more comfortable taking the bottom position until your knee is less sore. If you have additional questions or concerns, please ask.

Chapter 12: Lifetime Movement Restrictions



**Lifting heavy objects
may cause injury to
you new knee joint**

The following restrictions should be followed for the 3 month recovery period and for the **rest of your life**.

DO NOT twist the operated leg inward with quick or exaggerated movement.

DO NOT pivot when standing. Instead, take small steps to turn around.

DO NOT jerk the operated leg. For example, if your foot is stuck in mud, do not forcefully pull it out. Take your foot out of the shoe and let someone else pull the shoe out of the mud.

DO NOT lift and carry anything that weighs more than 20 pounds. If you lift 20 pounds, the amount of weight your knees are supporting is approximately 120 pounds. This is too much stress for an artificial knee joint. Some objects that might be too heavy to lift include: groceries, laundry, garbage, toolboxes, children, pets, luggage, and full golf bags. This idea includes your own body weight. Keep within your normal weight limit.

DO NOT participate in sports that require any jumping, jerking, pulling, twisting, or running.

It is foolish to take chances with your activities because you could put your artificial knee joint at risk. While there is no guarantee for any type of artificial joint, following these rules will certainly increase your chance for a more successful result. And remember, you are the one who will benefit from a good result!

Chapter 13: Returning to Work



Returning to Work

You and your surgeon will discuss when you can return to work. This decision will be based on:

1. The type of work you do. An office worker can return work two to four weeks after surgery; a skilled worker can return to work three months after surgery.
2. Your physical stamina
3. Other medical information

We recommend that you avoid making any major changes in your work or retirement plans until your recovery is complete.

Chapter 14: Common Problems



You may have a loss
of appetite after
surgery

Appetite

After surgery, you might have less of an appetite. This could be caused by your medicines, or it may be that you are not used to the hospital food and your appetite will improve when you return home. You should call the office if you are vomiting or not able to eat at all. You should also call if after one or two weeks your diet is not back to normal.

Depression

It is not uncommon for you to feel somewhat sad and depressed once you have returned home from the hospital. You may cry easily and be more irritable. Don't worry, this will improve with time. It is important for you to talk openly about your feelings with your health care provider, supportive family members, or friends.

Incision care

Your incision may be warm, itchy, and slightly red for several weeks after surgery. Extensive bruising is usually present; however, excessive redness or soreness and any drainage should be reported to your surgeon or his nurse.

DO keep the incision dry and do not bathe until your staples have been removed and steri-strips placed.

Leg and Ankle Swelling

You will have some swelling in your operated leg, but excessive swelling should be reported to your surgeon. If activity makes the swelling worse, plan to elevate your legs several times during the day.

DO have someone change your support hose each day.

DO wear your support hose on both legs 24 hours a day (except when bathing) for the first week you are home. You will be more active when you return home and may initially swell more.

DO wash your support hose by hand in a mild detergent and hang them to dry. You will be given 2 pairs.

DO stop wearing your support hose at night after the first week at home if your ankles are not too swollen. You must have the support hose put on before you get out of bed in the morning and you must wear them all day, every day, until instructed by the surgeon.



Wash your support hose by hand and hang them to dry

Pain and Numbness

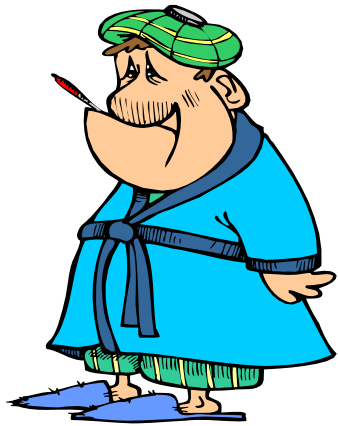
You may expect to feel numbness, pain, and discomfort in your incision after surgery.

DO take the pain medication that has been prescribed for you. As the pain lessens, alternate the pain medication with regular or extra-strength Tylenol.

DO try an ice pack on your incision for 15-20 minutes, several times a day.

DO report to your surgeon any numbness or tingling down the back of your operated leg.

Chapter 15: When to Call a Doctor



**Please call us if you
have any problems
associated with your
surgery**

If you have having any problems associated with your surgery, please call your surgeon's office at (501) 666-2824. Call if you have:

1. A temperature above 100 degrees
2. Drainage from your incision
3. Excessive redness around the incision
4. An increase in incisional pain
5. Excessive leg swelling
6. Pain and swelling in the calf of the leg
7. Numbness or tingling down the back of the operative leg

Your family doctor should be called for chronic problems, such as heart conditions, thyroid problems, or diabetes. After surgery, it is common for your blood pressure (BP) to be lower than usual. You may not need to take your BP medicine when you first arrive home and we will advise you on this. However, as you recover and become more active, your BP may need to be controlled with medication again. Your family doctor may need to monitor your BP once you return home. Your family doctor may also be the closest source for advice if you develop a cold, flu, nausea, vomiting, diarrhea, or constipation. If you are unsure which doctor to call, contact your surgeon's office to be directed to the proper source.

Chapter 16: Home Safety Precautions



Be sure to use handrails and non-skid mats in your bathtub or shower

DO use non-skid rugs (no scatter or area rugs).

DO use non-skid mats on bathtub/shower floors.

DO use handrails in the shower or bathtub.

DO keep stairs, walkways, and hallways free of objects and clothes.

DO wear shoes or slippers with non-skid soles.

DO keep emergency numbers near your phone.

DO keep phone and lamp cords short or tucked away so you can't trip over them.

Chapter 17: Your Two Week Knee Evaluation



**X-ray of knee joint
prosthesis**

This evaluation will help you proceed to the next level of your rehabilitation.

During this visit, your knee will be x-rayed, your x-rays will be reviewed, and the physician assistant or surgeon will see you. You will be measured for the amount of motion you have in your knee, gently test your strength, evaluate your walking ability, and check for swelling. It is very normal to still be swollen at this time. Some swelling may persist for several weeks to several months.

The staples will be removed at this visit and steri-strips placed along your incision.

You will be asked questions concerning your activities during the past two weeks and about any difficulties you may have encountered. You should also feel free to ask questions.

It may take several months before you incorporate the knee prosthesis as a part of yourself. Your next evaluation day will be 3 months from the day of surgery (unless there is a problem). It is very important for you to attend each follow-up evaluation so that your surgeon can follow your progress.



You may use a cane 4 weeks into recovery.

Walking with a Cane

Towards the end of your physical therapy, the physical therapist will graduate you to and teach how to use a cane properly.

If you do not have a cane, you may purchase one at most large pharmacies or medical supply stores. The therapist can help you adjust the length of the cane to the proper height.

You should understand that all total knee replacement patients may have periods during the rest of their lives when a cane may be required. For example, you may need a cane when you go on vacation and do an excessive amount of walking or when you take part in an activity that is not part of your normal routine. At this time you may note some soreness in your knee. You should use a cane until the soreness disappears.

Remember your **lifetime movement restrictions** – they are important to the life of your joint! Carelessness only puts you at risk for more surgery.

Post-Surgery Follow-Up Evaluation

You will be expected to attend regular follow-up visits after your knee replacement surgery. The schedule for these post-surgery visits is as follows: 2 weeks, 3 months (twelve weeks), 1 year, 3 years, 5 years, 7 years, 10 years, 12 years, 15 years, 17 years, 20 years, and 25 years.

It is important for you to understand the necessity of attending ALL of your post-surgery follow-up evaluations. Even though you may be feeling fine, it is still vital for you to come in for these regular check-ups. Having your knee replacement(s) checked every two or three years is necessary for your continued good health and pain-free daily living.

Chapter 18: Your Future Dental & Medical Care



You will need to take an antibiotic before and after dental and medical procedures

Since you have an artificial knee joint in place, you must take care to protect it from infection. Before having dental work or certain medical procedures performed, it will be necessary for you to take an antibiotic. The antibiotic will help prevent bacteria from getting into the blood stream and thus into your knee.

Amoxicillin is the antibiotic commonly given before and after dental work. You may take Clindamycin if you are allergic to Penicillin. Or, you may take another antibiotic as recommended by the American Heart Association.

For routine and extensive dental work, such as teeth cleaning, fillings, extractions, or root canals, you should take:

1. Two Amoxicillin (500 mg) one hour before the procedure
2. One Amoxicillin (500 mg) six hours after the initial dose of Keflex

If you are allergic to Penicillin than you can take Clindamycin

1. Three Clindamycin (150 mg) one hour before the procedure
2. Two Clindamycin (150 mg) six hours after the initial dose.

When making your dental appointment, make sure the dentist knows you now have a joint replacement and that you will need him to phone in an antibiotic prescription before your appointment.

Antibiotics given for other medical procedures may vary. It will also be necessary for you to be treated with a full course of antibiotics if you develop an infection such as an abscessed tooth, pneumonia, bronchitis, skin or urinary infections. See your family doctor to be placed on the correct antibiotic treatment for medical problems such as these.

Please contact your dentist with further questions.

To Reduce Swelling



ELEVATE
Your entire
leg(s)
with knee(s)
straight.

AND



Use
ICE BAGS
on your
knee(s)
several times
daily.

UPPER EXTREMITY EXERCISES

Shoulder Flexion

- A. While sitting in chair with back and elbow straight
- B. Raise arm out in front of body
- C. Slowly lower arm back down to side



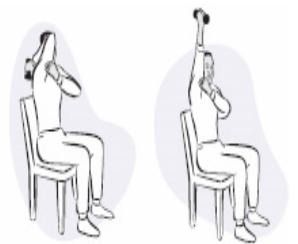
Biceps Strengthening

- A. Sitting in chair with elbow at your side and a small soup can in hand
- B. Slowly bend elbow bringing hand toward shoulder
- C. Slowly lower arm down to straighten elbow



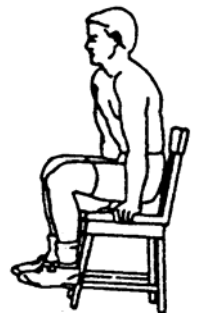
Triceps Strengthening

- A. Lying on your back with elbow pointed toward ceiling and small soup can in hand
- B. Slowly bend and straighten elbow, be sure to keep elbow pointed to ceiling



Sitting Press-Up

- A. Sit in a chair with palms flat on seat or on arms or chair
- B. Lean forward slightly and push up so that buttocks comes up off chair
- C. Slowly lower buttocks back down to chair



***** THESE EXERCISES NEED TO BE PREFORMED ALONG WITH LEG EXERCISE IN PREPARATION FOR YOUR SURGERY. *****

Important Phone Numbers

Surgeon's Office _____

Family Doctor _____

Ambulance _____

Pharmacy _____

Other _____

Doctor Appointments

Initial Visit _____

Pre-Admission Screening Day _____

Surgery Date _____

Two Week Evaluation _____

Three Month Evaluation _____

One Year Evaluation _____

Three Year Evaluation _____

Five Year Evaluation _____

Seven Year Evaluation _____

Ten Year Evaluation _____

Twelve Year Evaluation _____

Fifteen Year Evaluation _____

Seventeen Year Evaluation _____

Twenty Year Evaluation _____

