

THE ONLY WAY TO GET AHEAD,

IS TO GET STARTED

Mark Twain-

Total Knee Replacement Patient Handbook

Total Joint Replacement Center of Excellence

Mission: Our program is designed to provide high quality healthcare with an emphasis on patient safety, improved patient outcomes and consistent collaboration of all healthcare providers, to achieve excellence in hip and knee arthroplasty.

Our program will demonstrate excellence and consistent care of the patient undergoing total hip and knee arthroplasty, beginning at the Orthopedic Surgeon consultation, preoperative evaluation, intraoperative and postoperative episodes of care, and continue through all Orthopedic follow up visits, for a seamless transition through each phase of care.

Our focus on education of the total hip and total knee arthroplasty patient in the preoperative, intraoperative, and postoperative phase of care is a priority. As is including the patient in our decision making process as we address comorbidities, risk factors, preoperative rehabilitation, and discharge planning throughout the continuum of care.

We have designed a shared decision making model which includes defining the roles of the multidisciplinary team members, streamlining procedures and care that are specific to the joint arthroplasty patient, and closely evaluating medications specific for the patient, throughout the continuum of care.

We promise to engage in consistent communication and collaboration of all healthcare providers involved in the total hip and total knee arthroplasty patient throughout the continuum of care, to ensure the best possible outcomes for all total joint replacement patients.

Riverside University Health Systems-Medical Center 26520 Cactus Avenue, Moreno Valley, CA 92555 (951) 486-4000

Total Joint Replacement Center of Excellence



A team of healthcare providers is ready to help you prepare for your knee replacement and care during your recovery. Physicians, nurses, physical therapists, and discharge planners are the principal players on your team. Taking an active role in your care is very important to a fast and smooth recovery.

As a patient, your role before and after your knee replacement is important for a fast and successful recovery. It is also important to involve a family member or significant other before, during and after surgery. This includes accompanying you to the doctor's office, classes and physical therapy. You will find having the emotional support of a loved one who has a thorough understanding of the physical side of the procedure will help you return to a full and active life.

This handbook has been developed to give you information and help prepare you for your surgery and recovery process.

Orthopedic Clinic Nurse Advice	
Mon-Fri 8:00 am to 5:00 pm	(951) 486-7508
Or call the hospital and follow the prompts	(951) 486-4000
After Hours Call Hospital Operator	
Ask for Ortho Physician On Call	(951) 486-4000
Perioperative Medical Review Team	
Mon-Fri7:30 am to 5:00 pm	(951) 486-7508
Orthonodia Unit 2500	
Orthopedic Unit 3500	
Nurses Station	(951) 486-5315
•	(951) 486-5315
•	(951) 486-5315 (951) 486-5118
Nurses Station	
Nurses Station	
Nurses Station Case Management	(951) 486-5118
Nurses Station Case Management Outpatient Physical Therapy	(951) 486-5118

Helpful Contact Information

Surgical day arrival times: Arrival times may change due to last minute cancellations. If you have not already been contacted with your check in time on the day before your scheduled surgery, please call the Surgery Scheduling Center at **(951) 486-4555 between the hours of 1:00 pm-6:00 pm** on the day before surgery. If your surgery is scheduled on a Monday, please call the Friday before.

Contents

Total Knee Arthroplasty	6
Purpose of a Total Joint Replacement	7
Minimizing Risks	8-10
Before Your Hospital Stay	11
Other Considerations prior to surgery	12
Pre-surgery Exercises	13-14
Getting your home ready	15-16
Showering and skin prep before surgery	
Your Hospital Stay	18-20
Physical Therapy Exercises	21-23
Planning for your discharge	24-27
Wound Care	28
Medications Used for Anticoagulation	29-30
Important reminders	31
Commonly asked questions	32-35
Additional Exercises	36-38

Your new knee:

Technological advances have made it possible for your painful knee to be replaced with a prosthesis (artificial knee). The knee is a hinge joint and is formed where the thigh and lower leg meet. When you bend your knee to walk the bones rotate and glide on each other and help support your weight.





ARTHRITIC KNEE JOINT

KNEE WITH PROSTHESIS

Your orthopedic surgeon has prescribed a Total Knee Replacement to lessen your pain and make walking easier. Unlike your present knee, your prosthesis has a limited safe range of motion and will need special care after surgery.

Purpose of a Total Joint Replacement

- To alleviate pain.
- To restore lost function walk without pain.
- To improve quality of life and maintain your independence.

We are over 90% successful in achieving these goals. This is not a surgery for recreational sports / activities.

Risks and Possible Complications of Total Joint Replacement Surgery

The following is a list of potential complications and risks associated with major surgeries such as total joint replacement. The list is provided not to frighten you, but to inform you of the possible risks of the procedure. The chance of a complication occurring is very low. Possible complications include:

- anesthesia complications (very rare)
- infection (less than 1 in 100)
- loosening of implants (or Failure/Breakage of implants)
- injury to blood vessels (very rare)
- injury to nerves (less than 1 in 200)
- fracture of your bone during implantation (very rare)
- thrombophlebitis (blood clots form in your legs or pelvis, less than 1 in 200)
- pulmonary embolus (blood clots in the lungs, less than 1 in 200)
- blood loss leading to a transfusion of blood (less than 1 in 10)
- transfusion reactions (very rare)
- heart attack (less than 1 in 300)
- stroke (less than 1 in 300)
- death (less than 1 in 300)

Your physician is aware of these possible complications and takes many precautions to reduce these risks. If you have any questions or concerns about these or other complications of surgery, please discuss them with your surgeon.

How can I Minimize my Risks and Maximize my Results

Prior to having your surgery scheduled, we want you to be in the best possible health. We will have you work with a team of health care providers to make sure that your surgery is as safe as possible.

- Excess weight makes your surgery more difficult and places you at an increased risk for complications. If you are overweight (BMI > 30) you need to enroll in a weight loss program. There are several options depending on how much weight you need to lose. You may contact community programs or visit your primary care physician as well. Patients suffering severe Obesity (BMI>40) are at a much higher risk for infection.
- Diabetes is a risk factor for surgical complications including infection. If you are a diabetic, your blood sugars need to be under good control. This is measured by your daily blood sugars and by your hemoglobin A1C. The best goal for hemoglobin A1C is 7 or lower. To be considered for total joint replacement, your Hemoglobin A1C must be below 9 and your daily blood sugars well controlled. If needed, you will work with your primary care physician to meet these goals.
- Smoking and use of tobacco products increases your risks for complications during surgery. If you would like to stop smoking prior to scheduling your surgery, resources will be given to you or attained by calling 1-800-NO-BUTTS.
- Osteoporosis (weakening of the bones) needs to be treated prior to replacing your joint. We want to have the best possible foundation for putting the new joint in place. If you are a woman over age 65 or a man over age 70 you will need to be

evaluated for osteoporosis. If you are found to have this condition, you will need treatment. The orders for testing can be placed today and should be completed as soon as possible.

- Conditions such as heart attack (myocardial infarction), valve replacement, stroke, rheumatic fever, liver failure, kidney failure, lung disease, and other major health problems may require additional testing and management. Our peri-operative specialists will work with you and your primary care physician to manage these conditions prior to scheduling your surgery.
- Hip and knee surgery increases your risk for developing blood clots which may be life threatening. Previous blood clots, smoking, use of birth control pills, lack of activity and certain types of cancer can increase your risk of developing a blood clot. If any of these apply to you, please be sure and tell your surgeon.
- Many conditions can decrease the strength of your immune system: HIV, chronic illness, smoking and certain medications may cause you to be more susceptible to infection. Please let your health care team know if any of these apply to you.
- Alcohol may interfere with anesthesia and pain medications. Do not drink any alcohol beverages (beer, wine or hard liquor) within 1 week (7 days) of your surgery.
- If you are in recovery from drug or alcohol dependence, please discuss this with your surgical team. Our pain management and addiction specialists can help you and your family manage your pain medications to decrease the risk of relapse.

Illness

If you develop any illness such as a cold, flu, temperature, skin rash or infection, or "flare-up" of a health problem in the 10 days prior to your surgery, it is important that you notify your surgeon's office immediately. Sometimes minor health problems can be quite serious when combined with the stress of surgery. Please try not to damage, cut, or scratch the skin, especially on your operative leg. Animal scratches/bites or infection, etc., could result in your surgery being postponed.

Before Your Hospital Stay

Preparing for Your Surgery

Appointments Needed Prior to Surgery

In order to help you be as ready for a safe surgery as possible you will need to attend a number of appointments. These include but are not limited to the following:

Total Joint Class- Once you have been given a surgical date you will be scheduled for this group class. This class is taught by our Clinical Nurse, Physical Therapist, and a Pharmacist. There is a great deal of information at this class that is very important to the success of your surgery and your recovery. This appointment lasts approximately 1 to 2 hours. Please bring this book with you to your class.

Pre-Operative Appointment- (1) You will be seen by one of our Physicians /Nurse Practitioner from the Perioperative Medical Review Team. A comprehensive medical history and physical will be performed and all risks and possible complications along with the benefits of the surgery will be discussed with you. At this time you will have lab tests, along with any additional x-rays/diagnostics ordered that will be needed to optimize your treatment prior to and during surgery. You will be given all needed instructions and directions for your surgery. (2) You will have an opportunity to decide along with your anesthesiologist options for your surgical anesthesia and pain management and ask questions.

Other Considerations prior to surgery

A total joint replacement is an elective surgery and you have time to prepare and to be in the best possible health before you have surgery. Other considerations prior to a total joint replacement include but are not limited to:

- time off work
- recovery time
- need for assistance after surgery
- transportation for multiple appointments before and after surgery
- cost of surgery and recovery (depends on your co-pays and coverage)
- impact on family
- pet care while you are in hospital and recovering
- some changes to lifestyle after joint replacement

Have Help Available

Until you learn to become more independent, you will need help with your daily activities so it is important that you arrange for someone to be available to assist you for about 2 weeks after you are discharged from the hospital.

In choosing a caregiver, consider that this person should be physically able to assist you with the following activities:

- Standing up from a chair, sofa, or bed.
- Stand-by support while walking or managing stairs.
- Assist as needed with bathing, dressing and housekeeping chores.
- Transportation to appointments, back home after your surgery, picking up prescriptions and grocery shopping.
- Assist in meal preparation.

Pre-Surgery Exercises

It is important to begin to exercise as soon as you know you are having surgery. These exercises strengthen your arms, thighs, and knee muscles, increase range of motion, and promote mobility after surgery.

Start slowly, and if exercise causes pain, fatigue, or shortness of breath, call your orthopedic surgeon.

1. Begin a cardiovascular conditioning program

Start slow and increase your time as your endurance and knee will allow. If your pain increases, slow down, decrease your time or stop the program. Work up to a 20 minute program per day. You should be able to converse normally while exercising, but feel as though you are working fairly hard.

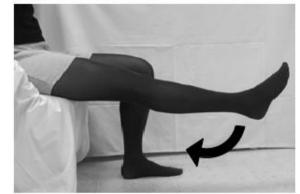
- Swim: This would ideally be done in a warm pool. Swim laps or perform general exercise in the pool to get your cardiovascular exercise.
- Bike: If you are unable to use a pool, biking would be the next choice. If balance is challenging for you, use a stationary bike.
- 2. Chair Push Ups

Put your hands on the arms of the chair and push down in order to lift your body up. Repeat 10 times, 2-3x per day as able.



3. Long Arc Quads

While sitting in a chair, slowly raise your foot until your knee is completely straight. Repeat 15 times, 2-3x per day as able. Don't forget to exercise both legs.



4. Straight Leg Raises

Lie down on your back with your good knee bent and foot flat on the ground. Lift the other leg up while keeping the knee straight. Raise your leg no higher than the height of the other leg's knee. Repeat 15 times, 2-3x per day as able for both legs.



Getting Your Home Ready

For your safety, it is important to make some alterations in your home environment. This should be done before you come to the hospital for surgery.

Bedroom

- If you have a two story home, arrange a bed/sleeping area on the ground floor.
- Make sure that you have lighting at night between your bed and bathroom.
- Keep a flashlight at bedside.
- Place a phone within reach on a nightstand without having to turn or twist in bed. Consider purchasing a cordless phone if you don't already have one.

Bathroom

- Consider installing grab bars on walls of the shower or tub
- Move toilet paper so you do not have to reach forward or twist around when using the bathroom
- Explore purchasing a hand held shower head and shower chairs which will allow sitting while bathing once showers are allowed; a long handled sponge is useful.

Note: High rise toilet seat and shower chairs are not covered by your insurance and must be purchased at your own cost.

Living Space

- Remove scatter rugs or other objects on the floor, (such as electrical or telephone cords) which could cause you to trip and fall
- Have a firm chair that has arm rest, a high seat and a straight back available for you to sit in.
- Arrange your furniture allowing clearance for a walker. Walkers are at least 2 feet wide.
- Low chairs, swivel chairs, or rolling chairs are not safe for you to sit in after surgery.
- Place a list of emergency numbers by each telephone.

Wardrobe/Closet

- You will need low, broad-heeled or flat shoes that are properly fitted.
- Allow ease in dressing by wearing elastic waist or draw string garments.
- Find some knee length gowns/night shirts and robes that won't get in the way when you are walking.
- Find an apron with pockets to hold things like a cordless or cellular telephone, tissues, TV remote, medications, juice boxes, etc.
- Place frequently worn items in dresser drawers that do not require bending or stooping.
- Purchase a grabber to pickup dropped items; practice using it before surgery.
- Obtain a shoe horn with extension to reach your feet.

Showering and Skin Prep before Surgery

The morning of surgery (or the night before for 6:00am arrivals), it is important to shower with the special soap that you will be given at your Joint Education Class. The soap contains chlorhexedine (CHG). Taking a shower with this special soap will help reduce the risk of infection, as washing with this soap reduces the amount of normal bacteria on your skin. The bacteria may be a source of infection during your surgery. Make sure you take a shower for 3 days prior to your surgery date, including the morning of surgery, do not sit in the bathtub filled with water. **Do not shave the surgical area 7 days before surgery.**

Nothing to eat or drink after Midnight the Night Before Surgery.

Diet Instructions before Surgery- Failure to follow these instructions may cause delay or cancellation of your surgery.

- Stop all clear fluids after midnight the night before surgery, also no chewing gum, mints, or candy after midnight before your scheduled surgery.
 Please do take:
- Your usual morning blood pressure and heart medications on the day of surgery.
- You may brush your teeth but do not swallow any water. Please do not chew, suck or swallow anything solid .
- Do take diabetes medication or insulin on the day of surgery, unless otherwise instructed.

Your Hospital Stay

What to Bring to the Hospital

- List of all medications and supplements you take, including dose and frequency.
- Lose slippers with non-skid soles and heel backs. Your feet will be swollen after surgery.
- Knee-length or short bathrobe
- Toiletries such as a toothbrush, toothpaste, comb, brush, etc.
- Glasses, hearing aids with extra batteries and their containers.
- A container for dentures or partials
- Comfortable clothing to wear home
- Medical insurance card(s), photo identification.
- Co payment (If your health plan coverage requires a copayment for hospitalization or discharge medications, bring ONLY the amount of cash necessary, a check or credit card to cover these expenses.)
- Pre-op Packet
- Copy of your Advanced Directive if you have one.

Leave valuable items such as money, jewelry, watches, additional credit cards, laptop computers, and cellular phones at home (cellular phone use is not permitted in the hospital).

Do not wear any metal products such as hair clips, bobby pins, jewelry, or metallic nail polish on the day of surgery.

Inform hospital staff of any medication and non-medication allergies you may have. Non-medication allergies include latex, flower/plants, surgical or paper tape.

Mobility and Comfort Measures

Shortly after your surgery, the nurse or Physical Therapist will get you out of bed. Getting up and out of bed will help prevent blood clots, constipation and pneumonia.

The goal is to keep you comfortable. If the medication to control your pain is not working, tell your nurse. You and your nurse will plan together to control your pain.

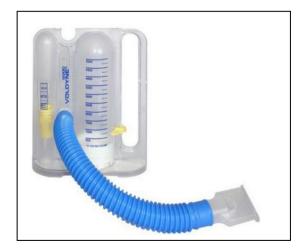
You may not have a bowel movement while you are in the hospital; however, constipation is a common problem following surgery, so please request a laxative if you think you need one.

DON"T BE AFRAID TO SPEAK UP IF YOU'RE UNCOMFORTABLE!

Treatments

A small tube (Foley catheter) may be inserted into your bladder to drain urine. This catheter will be removed the morning after surgery. If you don't have a catheter and you think your bladder is full, please let your nurse know.

You will need to take deep breaths using your incentive spirometer (IS) to open your lungs and clear secretions after surgery. You should use your incentive spirometer 10 times every 1 to 2 hours while you are awake.



Therapy in the Hospital

Physical Therapy

Starting your exercise program and mobility early is vital to making your rehabilitation successful.

- Your first session with a Physical Therapist will be on the day of your surgery.
- You may participate in therapy twice each day while you are in the hospital.
- Your physical therapist will go over the exercises that you will be doing daily and make sure you are performing them properly. This will include range or motion and strengthening exercises.
- Your physical therapist will assist and instruct you in activities of daily living, (getting in and out of bed, using the restroom, etc).
- Your physical therapist will teach you how to use a walker to ambulate while you are in the hospital.
- Once you are discharged from the hospital you will continue your physical therapy at home.

Physical Therapy Exercises

In order to help improve your range of motion, strengthen your legs, decrease your pain, and increase circulation, it is important to do your exercises often during the day.

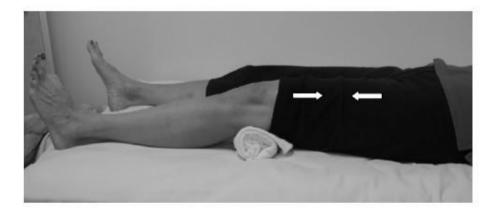
1. Passive Knee Extension

Place a large enough towel under the ankle of the operative leg so that your calf clears the bed. Let your knee go as straight as possible. Try and hold this position for 3-5 minutes every 2 hours. This will work on increasing your knee extension range of motion.



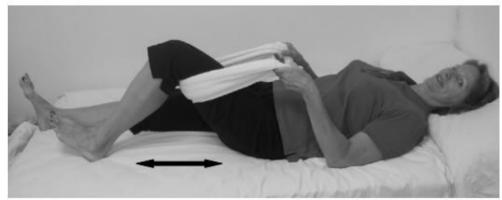
2. Quad sets

Place a small towel roll behind the operative knee. Try to slowly squish the towel by tightening the muscles in the thigh. Hold for 6-8 seconds and repeat 10-20 times, 3-4 times per day.



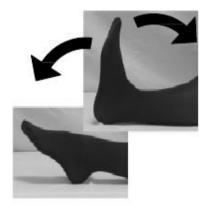
3. Heel Slides

Loop a towel behind your knee. Bend your knee and pull your heel toward your buttocks using the towel to assist the motion. Allow the heel to slide back down slowly until the knee is straight again. Repeat 10-20 times, 3-4 times per day.



4. Ankle Pumps

Bring your toes towards your shin as far as possible and then point your toes down as far as possible. Do both feet together. Repeat 10-20 times, every hour if possible.



5. Short Arc Quads

Place a pillow under your operative knee. Slowly raise the foot up, while keeping your knee on the pillow, until your knee is fully extended. Hold 6-8 seconds. Repeat 10-20 times, 3-4 times per day. This exercise is a more advanced exercise for early stage rehabilitation and should only be completed if your physical therapist feels you have an adequate quad contraction.



Planning for Your Discharge

Discharge Planning

Discharge Planning is an integral part of your hospitalization. Coordinating services, medical equipment and care (as ordered by your doctor) after hospitalization can sometimes take a few hours to several days. This is why discharge planning begins even before arriving at the hospital.

Patient Care Coordinators (also known, as Discharge Planners) are registered nurses. They are available to assess and discuss your needs for post hospitalization care. By doing this they hope to achieve a smooth and successful discharge for you and your family when your doctor feels you are ready.

Some of the areas that Patient Care Coordinators can assist you and your family with are as follows:

- · Assistance in determining your medical benefits
- Obtaining Medical Equipment
- Medical Social Worker referrals
- Transportation coordination
 Home Health coordination

Patients that have Knee Replacement Surgery are generally discharged 1-2 days after surgery. Please make sure someone is available to give you a ride home as soon as you are discharged.

Medical Equipment

Medical equipment and the amount of insurance coverage vary and are determined by your health plan. It is important that you understand which equipment will be covered and which you will need to take on as an additional expense of your surgery.

- 1.) Standard medical equipment that will be needed at the time of your discharge from the hospital is a front wheeled walker.
- 2.) The Doctor may also recommend a bedside commode; this may be covered under your insurance policy if specific criteria are met.
- 3.) Elevated toilet seats and hip kits are NOT a covered benefit by any health plan, and can be purchased at any medical equipment store.

These items can be arranged for by the discharge planning department. If your plan does not cover durable medical equipment, this may be an out of pocket expense for you.

Home Care

- Use your walker or crutches after surgery. Do not stop using your walker until you are stable and can transition to a cane or no assistive device. Your home health therapists can assist with this transition.
- Use an adjustable commode seat if needed.
- Put frequently used items on counter tops within easy reach.
- Use an assistive device for dressing, such as a sock-aid or dressing-aid for pulling pants up if needed.
- Walk for function only, for the first 2 weeks. This means that it is o.k. to walk in and around your home but don't go outside for extended walks. This may cause more swelling in your knee.
- Do not put a pillow or rolled towel under your operated knee. This interferes with getting your knee straight.

Pain Control

It is normal to have pain in your knee following surgery. Pain at night can persist for 8-12 weeks after surgery.

- Use your pain medication as needed to manage the pain. Keeping your pain managed will help you do your exercises and prevent loss of motion.
- Keep the leg elevated to reduce the swelling and pressure.
- Use ice on your knee for 15-20 minutes at a time. Repeat this as often as you wish up to one time per hour.
- Do not leave your leg down for long periods.
- If you experience significant pain or swelling, contact your doctor immediately.
- Increase activities gradually. You need to exercise, but don't overdo.

Wound Care

Incision Care and Hygiene

In most cases you may shower 5 days after surgery, unless your incision is draining or you are instructed otherwise. After showering, gently pat the area dry. Do not take a bath or go into pools of water until advised by your surgeon after your first postoperative clinic visit.

Keep the area dry and avoid using creams or ointments. Ask a family member to check your incision for signs of redness, swelling, drainage, increased tenderness, or bleeding.

Tell your physician and therapist if you notice any of these signs. The incision was closed with staples or suture. Staples will be removed approximately 2 weeks from your surgery date by the home therapist. Once they are removed, tape-like steri-strips may be placed over the incision and you are not required to cover the steri-strips with a dressing. The steri-strips should not be removed; they should fall off by themselves but may be removed after 2 weeks.

When to Call Your Surgeon: Signs of Infection:

- Increased knee or hip pain not resolved with medication
- Increasing pain in your leg or calf tenderness and swelling that does not improve with elevation and rest
- Chest pain and or shortness of breath
- Redness, swelling, drainage, or an opening in your incision
- Temperature of 100.4 degrees F, or above
- Any other symptoms you do not understand

Medications Used for Anticoagulation

Description: Aspirin and warfarin (Coumadin •) are "blood thinners" or anticoagulants used to prevent deep venous thrombosis and pulmonary embolism, a condition in which harmful blood clots form in the blood vessels of the legs or lung. Anticoagulants carry a small risk of bleeding if taken exactly as directed.

Aspirin

- Take 325mg by mouth daily
- If you miss a dose, take it as soon as you remember but do not double the dose

Warfarin (Coumadin •) [Refer to Appendix A for detailed instructions]

- If you are prescribed warfarin (Coumadin *), you will be referred by your doctor to the Outpatient Anticoagulation Service (also known as OACS or "Anticoagulation Clinic"), which is a group of Pharmacist Specialists working closely with your doctor to help manage your warfarin (Coumadin *) therapy. Your active participation is important to ensure that you receive the best care.
- All warfarin (Coumadin •) medication instructions and blood tests will be provided by Anticoagulation Pharmacist Specialists. You can report directly to the lab with the instructions given to you.
- The pharmacist will call you with the results of your blood test and will advise you of any changes in the amount of warfarin you are to take.
- Please follow the warfarin instructions carefully. Take prescribed amount of medication by mouth 1 time a day every day as directed by the Anticoagulation Pharmacist. DO NOT DOUBLE UP ON DOSES or take extra warfarin to make up for a missed dose. See Appendix A, "What You Should Know About Warfarin Tablets", for detailed instructions if you forget to take your warfarin dose or take too much.
- Please inform us of any new medications or any medical conditions you may have.
- Avoid any big changes in the type or amount of food you eat, especially foods rich in vitamin K. See Appendix B, "Nutrition

Keynotes: Dietary Guidelines for Vitamin K and Warfarin (Coumadin)" for more detailed information.

• Keep medications out of the reach of children.

Common Anticoagulant Side Effects:

Because warfarin is a blood thinner, the most common side effects are related to bleeding.

Common side effects that may occur include gum bleeding from brushing your teeth (use a soft bristle toothbrush), nosebleeds, and small bruises. Some of the more serious side effects need to be reported to your doctor or anticoagulation pharmacist right away.

Serious side effects (seek immediate medical attention):

- Unusual vaginal bleeding or heavy/prolonged menstrual bleeding
- Red or black, tar-like stools
- Red or dark brown urine
- Bleeding that does not stop when you cut yourself
- Unusual bleeding or bruising anywhere on the body
- Unusual pain, swelling, or discomfort
- Coughing up blood
- Vomit that is bloody or looks like coffee grounds
- Shortness of breath or chest pain for an unknown reason
- Severe headache
- Dizziness/fainting
- Unusual or persistent tiredness/weakness
- Difficulty swallowing

Important Reminders

Be aware that your prosthesis may activate metal detectors. You may acquire a temporary disabled parking permit from the Department of Motor Vehicles. Forms are available in the Orthopedic Clinic.

If you are scheduled for dental work, you may need to take antibiotics. Prophylactic antibiotic therapy will prevent spread of infection to your prosthesis.

Do Not's for Knee Patients

- Do Not twist your knee. This can happen if you rotate your body without moving your feet. It is important that you think about your leg movement before activity begins.
- Do Not sit in armless chairs. Chair arms are useful to aid in rising to a standing position.
- Do Not get up from a chair until you have moved to the edge of the chair. Place your involved leg in front of you, with your uninvolved leg well under you. Keep your involved leg in front of you while you are getting up.
- Do Not sit in chairs with roller wheels.
- DO NOT sit in a bathtub. Use a shower stall, or use a shower seat for safety.
- DO NOT try and carry anything in your hands while you are walking with your walker. Use a walker bag if necessary.
- DO NOT wear high-heeled shoes. Wear low or flat, closed toe and heel, supportive shoes for optimum safety.
- DO NOT forget to keep your house free of clutter. Walkers and canes require more room to maneuver than you may think.
- DO NOT have any throw rugs in your walking path. Walkers and canes require more room to maneuver than you may think.
- DO NOT perform high impact activities such as running, jumping or race walking.

Commonly Asked Questions after Total Knee Replacement

Q. How do I bandage my knee?

A. Keep the bandage (Aquacel AG dressing) that you received in the hospital on your knee until seen at your postoperative appointment. If the bandage has blood on it, you may call the Ortho Clinic to schedule a cast room visit for a dressing change. If there is active bleeding or if there is continued spotting on the bandage on the 5th day after surgery, you need to be seen in the Orthopedic clinic. Call us to schedule an appointment (951) 486-7508.

Q. Should I be worried about swelling in my knee or leg?A. Swelling is a common and normal part of healing. Rest, Ice and Elevation can help reduce swelling in your knee and leg.

Q. Should I be worried about numbness or tingling in my leg? A. Numbness and tingling can commonly occur due to swelling in the leg. Rest, Ice and Elevation can help reduce swelling in your knee and leg and therefore reduce numbness and tingling.

Q. Should I be worried about redness or bruising?A. It is normal to have some skin color changes including some redness or bruising after surgery. Keep track of the discoloration.If there is redness and it is getting bigger, then you need to be seen in the Orthopedic clinic. Call us at (951) 486-7508 to make you an appointment. Bruising will typically resolve on its own and you can discuss it with your surgeon at your first visit.

Q. When should I expect to have a bowel movement? A. We would like for you to have had your first movement at the hospital. If not, then we would expect you to have one within 3 days of arriving home. You should have a high fiber diet and use stool softeners at home due to the strong pain medications that also cause constipation. You can try over the counter laxatives as well. If you have not had a movement by the 3 rd day of being home, then please call us at (951) 486-7508 for further instructions.

- Q. I haven't heard from Home PT (Physical Therapy) or Home Health. Who should I call?
- A. Call the Case Management Dept at (951) 486-5118.
- Q. My in home PT has ended. Do I need outpatient PT?
- A. Home PT will usually last for 2 to 3 weeks. After this, you should continue your exercises and expect to start outpatient PT for another few weeks. A key focus early after surgery is to get the knee fully straight. There, therapists will determine your PT needs and we do not extend PT unless recommended. We encourage you to perform the exercises on your own.
- Q. When can I take a shower?
- A. Remove your knee dressing and shower 5 days after surgery.
- Q. How often should I exercise and how far should I try to walk?
- A. Mild or moderate exercise is beneficial. Excessive exercise can be painful and possibly harmful. Your physical therapist will supply a list of exercises in the hospital for you to continue at home in addition to the exercises we have provided below. If you experience increased soreness that lasts for more than two days, you may want to decrease your activity slightly until you feel ready to progress.
- Q. How long will I have to use a walker after surgery?A. Most patients will use a walker for up to 4 weeks after surgery
- Q. Should I use ice packs?
- A. Ice may be used to help relieve pain and reduce swelling. Apply for 15 to 20 minutes followed by 15 to 20 minutes off for a couple hours per day.
- Q. Should I put lotion on my incision?
- A. Not until after your first postoperative visit with your surgeon. When your incision is healed, it is permissible to apply creams and ointments. They are not necessary for healing, but may help prevent itching and stretching sensations. Circular application of lotion over and around the healed incision will also help with the proper scar mobilization and prevent the formation of adhesions, which may limit proper motion of your knee.

- Q. My pain medication is not adequately controlling my pain. What should I do?
- A. You have been given strong narcotic medications to help control the pain. You will not be pain-free, but our hope is that your pain is at a tolerable level. Rest, ice and elevation can also help reduce pain. If your pain is not improving with time, then please call (951) 486-7508 to discuss it further.
- Q. How do I get more pain medication?
- A. Most patients will be given a couple of refills for their pain medication. Simply call the your pharmacy. If you do not have a refill then please contact us at (951) 486-7508 to discuss further. On weekends or after hours please call the operator (951) 486-4000 and ask for the Ortho doctor on call.
- Q. Will the pain in my knee stop?
- A. As you recover the pain in your knee will lessen. Your new knee as well as compliance with your prescribed exercise program should relieve the pain and stiffness you experienced before surgery. The goal of a total knee replacement is a painless knee; nonetheless there will be a small percentage of patients that continue to have some level of pain. It is important to remember that even with a total knee replacement the knee is not "normal" and may always feel somewhat different.
- Q. What sort of recreational activities can I participate in after my knee replacement?
- A. These items should be individually discussed with your physician.

Typically, we recommend low impact activities like walking, cycling, golfing, doubles tennis, dancing and swimming once your knee is completely healed. As your knee heals and strengthens, you will become more active. Eventually, you may be able to enjoy your favorite activities again.

Q. How long should I take Iron after surgery?

A. We encourage you to take Iron supplements with a multi-vitamin that includes Vitamin C and Zinc for 3 months following surgery.

Q. How long will I be off work after surgery?

A. You should have been given an off-work note for 90 days. Most patients are able to return to work sooner, but this can be addressed with your surgeon on your follow-up visit.

Q. How do I get a piece of Medical Equipment such as a raised toilet seat, shower chair, bathroom handrails, etc?

A. These are *non-covered items* that you will need to purchase. Your Clinical Case Manager will provide vendor resource information so that your equipment needs can be met.

Exercises for Total Knee Replacement

The following pages contain a set of exercises you will be required to perform before and after surgery. These may be started now.

- The exercises should be performed beginning today until the time of your surgery.
- Perform the exercises two to four times a day, 10 repetitions with each leg.
- Walk as much as is comfortable, wear good shoes when you walk.
- Gentle exercises help strengthen the muscles around your knee.
- Practice the following exercises before your surgery to give yourself the advantage of the strongest leg muscles possible.
- These exercises will be reviewed with you by your physical therapist after your surgery.
- You will be doing some of these exercises every 1-2 hours on you own while in the hospital and at home.
- Do not hold your breath while doing exercises.
- The exercises also include arm strengthening. These are important to prepare your arms to support some weight when you begin walking with a walker after surgery.

During your hospital stay

- Start the exercises the day of your surgery. Prior to discharge you will be instructed in a home program.
- Perform 10 of each exercise 3 to 4 times a day while you are in the hospital or as instructed in a home program.

After discharge from the hospital

- A daily exercise program once you return home is extremely important in order to maintain strength and to maximize function in your knee.
- Your goal is to attain 125 degrees of bending (flexion) and it is especially important to be able to fully straighten (extend) your knee.
- Exercise will also promote more rapid recovery from the surgery

and prevent the formation of blood clots or leg weakness. We recommend these exercises be performed three or four times per day, 10 repetitions each time.

Knee Exercises

Ankle Pumps- This exercise is done frequently during the day to promote good circulation and to assist in the prevention of blood clots. This is a simple exercise in which you pump your ankles up and down slowly with many repetitions.

Quadriceps Sets (tightens the thighs)- This exercise strengthens the quadriceps muscle on the front of your thigh. These muscles give your hip the stability and keep your knees from buckling while you are walking. This exercise is done by tightening your thigh until the back of the knee is flat on the bed, holding this straight leg position for the count of 10 seconds.

Hamstring Sets (tightens the back of the thigh)- This exercise will strengthen the muscles located on the back of your thigh. This is done by bending the knee very slightly and pushing down with the heel into your bed, holding for the count of 5.

Gluteal Sets (buttock pinches)- This exercise strengthens the gluteus maximus, which is a very important muscle for walking and stair climbing. This is done by pinching your buttocks together and holding the contraction for the count of 5.

Hamstring Stretch- This exercise will help you regain extension in your knee. Keep the knee as straight as possible when you stretch. Sit on a firm surface with one leg out in front and slowly lean forward, trying to touch your toes. Keep your head up and lead with your chest. Do Not Bounce. Hold the stretch for 15 seconds.

Hip Flex Supine- This exercise helps strengthen your hip and knee. Keep your involved knee as straight as possible as you lift the leg. Lie on your back with uninvolved knee bent as shown. Raise your surgical leg only 6 to 8 inches. Hold the lift for 6 seconds and slowly return to the starting position.

Sitting Knee Extensions- This exercise helps strengthen your thigh muscles. Be sure to remain sitting as straight as possible in the chair as you exercise. Sit, with both legs bent and straighten your surgical knee slowly as far as you can. Return slowly to the starting position.

Supine Knee Extensions- While in the bed, this resting position will help you to optimize your knee extension. Be sure to place the pillow below your ankle rather than your knee. Allow gravity to help straighten your knee in the position. Maintain proper alignment by having your toes and knee cap face up towards the ceiling rather than out to the side. Quad Sets may also be done in this position.

Sitting Knee Flex- This exercise helps you regain your knee bending motion. Be sure to remain sitting as straight as possible in the chair as you exercise. Sit in chair, moving heel of involved leg under the chair, as far as possible, as shown. Return to starting position.

This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor.