Your Personal Knee Surgery

GUIDE & WORKBOOK

Shasta Regional Medical Center

To our patients

WELCOME TO YOUR PERSONAL KNEE SURGERY GUIDE & WORKBOOK

Designed to help you understand your total knee replacement surgery, before, during and after surgery. This workbook will help you understand and remember the important details of your knee surgery. From the moment the decision is made to have knee surgery to months after your surgery, you will have many questions. This workbook will answer most of your questions and maybe inspire more.

As you read, you will have questions and space is provided throughout the workbook for you to write them down, so you are prepared to ask your health care providers for the answers to your questions. As you understand more about the surgery and the postoperative process, you will be able to actively participate in your recovery and work towards the goal of a pain free knee. Our goal is that you completely understand what you need to do and what will happen during the next few weeks. Remember, no question is silly or insignificant. Your surgery is an important event in your life and you we want you to understand it well.

Your Personal Knee Surgery Guide and Workbook is your guide to use at your doctor office visits, Joint Replacement Classes and during your hospital stay. We hope you use this as a resource for reviewing and making notes to help you remember important aspects of your care.

We hope that with this guide and your questions being answered before surgery, it will help you feel more confident and assured. This workbook is YOUR resource during the months to come and we look forward to being partners in your health care and achieving our goal of Treating People Well.

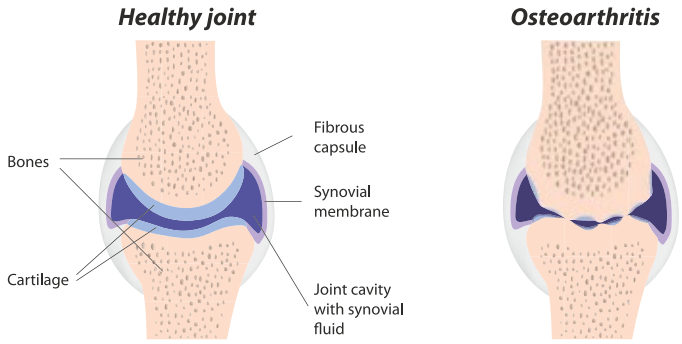
Why me?

Approximately one in seven people suffer from significant arthritis (inflammation of the joints). There are many causes of arthritis, but the common symptoms of any type of arthritis are pain, stiffness and weakness around the arthritic joint.

Your Knee

The knee is a major weight-bearing joint, which functions as a hinge. The thigh has two rounded surfaces and a groove for the kneecap. The lower portion is formed by the upper end of the leg bone, the tibia. The flat surface is called the plateau. The thigh portion moves smoothly over the tibia and is cushioned by the semilunar cartilages (menisci) and bound together by many ligaments.

Synovial Joint



The knee can be damaged from trauma or from inflammation. Either can result in severe pain that is not relieved by medications or modification of activities.

Trauma

With an injury to the knee (perhaps from a fall or a car accident), the smooth surface of the joint may be broken. This can result in an arthritic joint and subsequent pain.

Inflammation

A healthy knee joint is covered by a smooth gliding surface. Some diseases will roughen and pit this surface, causing pain.

The two most common diseases are Osteoarthritis and Rheumatoid Arthritis, both types cause joint pain, stiffness and inflammation. These in turn hamper the ability to walk and function in normal activities of daily living.

Osteoarthritis usually affects the surfaces of the weight-bearing joints, and usually only affects one or two joints in any one person. It is believed to be caused by abnormal and prolonged wear and tear to the joint surfaces – where the articular cartilage (the cartilage that covers the edges of the bones) wears away and bones grind against each other. The microscopic debris created causes inflammation. The grinding and inflammation are both sources of pain.

Rheumatoid Arthritis may affect any joint. The specific cause is unknown, but is often accompanied by abnormal immune system responses and inflamed joints throughout the body.

In some patients, other body systems are also involved.

Conservative treatment for arthritis patients will be attempted before a decision to consider surgery. Conservative treatment may include walking with a cane or crutch and limiting stressful activities. Physical therapy can help but at times may be difficult due to pain. Medications that help reduce inflammation may also be used. Injections may give temporary pain relief. When the relief of pain with conservative treatment is unsatisfactory, surgery may be an option.

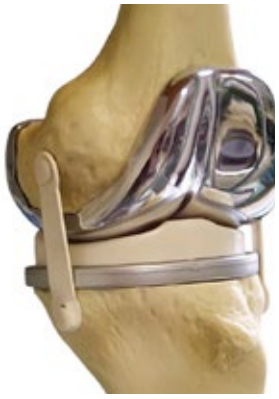
What is a total knee replacement?

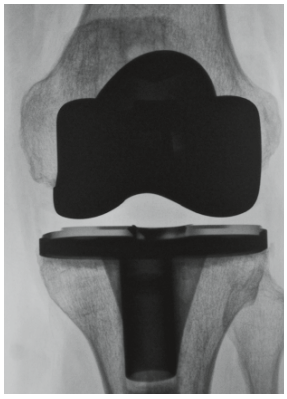
If the knee is substantially worn out, it generally causes great pain. In this case, the best surgery is to replace both the surfaces of the femoral bone and the tibia bone. They can be replaced with a metal and plastic bearing that functions similar to the natural knee. This replacement is technically called a total knee arthroplasty (total knee replacement). This should be thought of as a resurfacing. Like "relining the brakes". The binding ligaments and muscles are yours and work in the same way as before surgery.

There are many kinds of materials that can be used for this surgery. The materials currently used in knee surgery have a long history of safety and include cobalt chrome, titanium and high-density polyethylene plastic.

How is the total knee held in place?

The parts of the knee replacement can be held in place by different methods. One method uses an acrylic cement or grabbing material called methylmethacrylate. This is an acrylic polymer that sets very quickly. It is applied during the operation to fix the metal to the bone. Another method uses the natural growth of the bone to attach the new knee lining. This method requires the body to participate by using a porous metal prosthesis (with many small holes) which allow the bone to grow into it and mechanically attach the artificial knee to the bone. The method used is a factor of age, bone quality and other medical considerations.





Questions:

Are there risks with knee replacement surgery?

If there were no risks and surgery was pain-free, you probably would have had your knee surgery a long time ago. But, as you know, medical treatments do have risks and may have pain associated with them, and surgery is no exception.

Great improvements have been made in orthopedic surgery since the first knee replacement in the early 1970s. Despite this being the "best time ever" to have your knee replaced, there are still some real risks involved in this type of surgery.

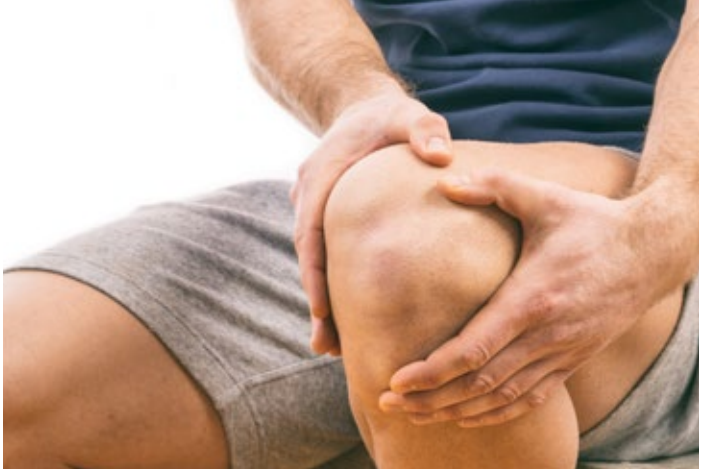
Infection

Any time the skin is violated (e.g., punctured, cut or burned), infections can occur. With a joint replacement, there is a foreign, inert material implanted in the body and this is susceptible to infection, especially in the early postoperative period. Many new special techniques are used to prevent infection. As a result, the risk of infection has dramatically decreased during the last 20 years.

You will receive instructions for skin reparation before surgery. You will receive antibiotics in your vein at the time of surgery. Every joint replacement surgeon uses special techniques at the time of surgery to prevent infection.

Phlebitis Also known as DVT (deep venous thrombosis) or VTE (venous thromboembolic disease)

Clotting of the veins in an abnormal fashion is called phlebitis. This can be a problem in joint replacement surgery and can result in swelling and pain in the leg. The problem veins are deep in the muscles. On occasion, a clot can break free in the vein and go all the way into the lungs causing difficulty in breathing and pain in the chest (pulmonary embolism). This is a rare

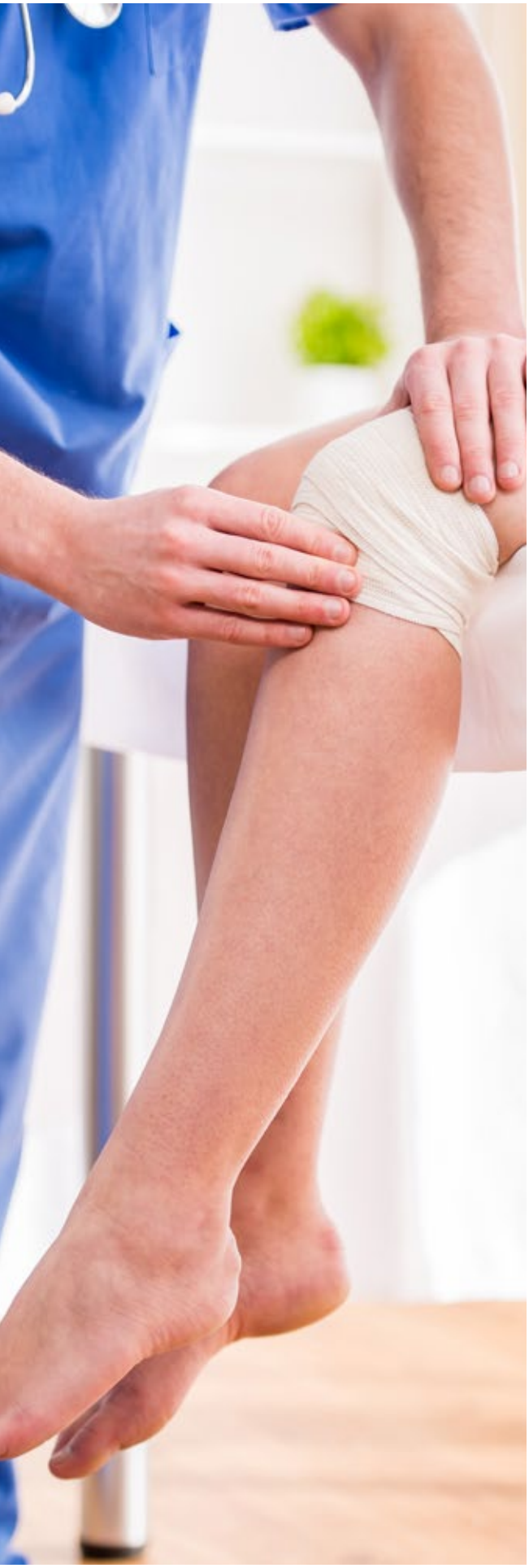


problem and many precautions are taken to minimize these risks. Your blood will usually be thinned during your hospitalization and once you return home. Medications that may be used include aspirin, Warfarin or other blood thinners. In addition, leg squeezers (pneumatic compression), are used to prevent the blood from pooling in the legs. These should be on when you are in bed. Remind your nurse if they are not applied when you are in bed. These compression hose are not "optional" and are an important part of prevention clots in your legs.

The most important preventive measure is to use your leg muscles. You should move your toes and ankles as much as you are able – starting in the recovery room (don't be afraid to wiggle your toes and ankles right away). We will get you out of bed starting the day of surgery. Mobilization will greatly aid in preventing phlebitis by promoting normal muscle contraction, blood flow and deep breathing.

You will also be given a breathing exercise machine called an incentive spirometer. This is a deep breathing lung exercise device. It is also important in preventing clots in the legs and pelvis as with a deep breath the diaphragm moves and pulls the blood from the lower extremities.

If you have a history of phlebitis in the past, then you may need to be placed on a stronger blood thinner for a number of months.



Nerve Injury

Injury to major nerves is rare. Small skin nerves will be cut as part of the incision. This results in small areas of numbness, but this is minimal and usually mostly recovers over 18 months. Joint replacement surgeons use special techniques to minimize the risk of nerve stretch injuries.

Edema

It is important to keep edema (watery swelling) out of the leg and knee as this can predispose it to infection. Special dressings and compressive hose may be used to help prevent swelling. Elevation of the leg (with the ankle above the heart) and moving the ankles and toes will also help.

Breathing Problems

Incentive spirometry (a device which helps you breath deeply) is used to help decrease problems like pneumonia. Deep breathing also promotes blood flow from the legs to the heart and helps to prevent clots in the legs.

Other Concerns

Urinary tract and skin problems can also develop from hospitalization. Emphasis on proper fluid intake minimizes urinary tract problems and special attention is also given to skin care to prevent areas of soreness or skin breakdown (such as bed sores or rashes).

Although these represent real and potential problems, they are generally rare. All of the medical professionals involved in your surgery and aftercare will do their best to prevent these problems. Another important consideration is that many of these preventative techniques depend on your cooperation. As a result, you can actively help to reduce the risk of complications by participating as fully as possible in these activities and treatments.

Blood Transfusions

With this type of surgery, blood is lost and transfusion may, on rare occasion, be necessary. The risks involved with blood transfusion are minimal, they include the transmission of diseases such as hepatitis, or fever, kidney problems, antibody formations and even low blood pressure. Knee infection rates are also increased with blood transfusions.

Pain Medications

Using strong narcotic pain medications will help to control your pain. Oral narcotics (pain pills) are most often used. Sometimes I.V. (intravenous) narcotics are used.

Narcotics can make you sleepy; they are constipating and sometimes cause nausea. You will need to ask your nurse for the pain medications as they are only given as needed and in a safe amount. Oral narcotics are then used when you go home until the pain is minimal, about two weeks. Narcotics have many bad side effects when used for months. Chronic use of narcotics clouds the mind and decreases your tolerance to cope with problems.

Anesthesia

At the time of surgery, one of two types of anesthesia is generally used. One method is an injection given into your back in order to numb you from the waist down. This is knows as regional or spinal anesthesia. The other method, known as general anesthesia is when medicines are used to help you go to sleep and requires a tube to be placed in your windpipe to help you breathe.

Spinal anesthesia is often preferred but will depend on your medical history. Spinal anesthesia can reduce blood loss and the risk of phlebitis. Most joint replacements are done with spinal anesthesia. Patients who have had both a general and a spinal anesthetic usually prefer the spinal, as they feel better after surgery.

The anesthesiologist will discuss the different types and risks of anesthesia with you prior to your surgery. The two of you will decide on which type of anesthesia is safest and best for you.

Questions: _____

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Preparing for surgery

Evaluation of Medical Problems

Total knee replacement is a big surgery and you have to be prepared. Minimizing the risks is very important. These are a few very important considerations so that you have an uncomplicated course and a good result.

Diet

Nutrition plays a critical role in both preparation and success following joint replacement surgery. Your body will have increased needs for protein, vitamins, and minerals following surgery for fighting off infection and to support proper healing. Protein is especially important for wound healing and immune strength following surgery. Adding additional protein supplements like Premier Protein or Ensure may be necessary up to a month prior to surgery. Your blood protein or "albumin" will be tested prior to surgery and it has been shown that low scores increase risk of complications.

If you don't eat enough fruits or vegetables a multivitamin/Vitamin D might need to be taken in addition to your current diet. Vitamin D is important for fighting off infection, preventing osteoporosis, and muscle movement. Ask your surgeon about taking a multivitamin or Vitamin D supplement both pre- and post - surgery if you do not already.

Diabetes

Diabetes unfortunately is increasingly common. If you have diabetes, it is very important to have good control of your sugars. It has been shown that the complications of joint replacement surgery are increased with diabetes, especially if not in good control. The best measure of control is a blood test called HbA1C. This test should be below 7. Your HbA1C will be tested just before surgery and if it is elevated then your surgery may need to be postponed. Work with your primary care physician to control your diabetes.

Smoking

To prolong your life…stop smoking. To lessen your chances of complications such as breathing issues, heart problems and wound healing stop smoking. You will be asked to NOT SMOKE during your hospitalization. Some surgeons will not operate unless you stop smoking, and some will even test your blood for nicotine to prove it. If you cannot stop before surgery, then this may be a good opportunity to stop, since you will have a few days without smoking.

Obesity

Being significantly overweight has risks. Mobilization (up and walking) is harder for the obese patient. Infection rates are considered higher. Blood clots in the legs seem more of a risk. Obesity is measured with a calculated value called BMI. A BMI over 30 means obese. Above 35 is morbidly obese. Some surgeons will not operate on a patient with a BMI over 40.

It is appropriate to ask obese patients to lose weight as part of a non-surgical treatment for arthritis. This decreases the pressure in the joint and may lessen the symptoms or progression of the arthritis. Some universities require patients to undergo bariatric surgery for weight loss prior to knee replacement surgery.

If weight reduction was not successful, then surgery still may be indicated. Obese patients generally do well with joint replacement, but they have increased risk of complications and are more difficult for the surgeon.

It is important that if you are scheduled for surgery that a crash diet is not appropriate for nutritional considerations (as discussed above). Obese patients can be protein and nutritionally depleted. Make sure you eat balanced meals with fruits, vegetables and lean meat. Do not do a “crash” diet for the first month after surgery as well, so you heal your wounds. Balanced nutrition is important at all times.

Preventing Potential Problems Before Surgery

Tooth and gum problems can allow bacteria to enter the blood stream, placing your newly operated joint at risk of infection. Therefore, it’s IMPERATIVE that you have dental problems taken care of weeks prior to your joint replacement surgery. Also, please remember to brush your teeth at least twice a day. Your teeth and gums need to be healthy and infection free.

Any skin rashes, cuts or scrapes increase the risk for infection. If you sustain an injury or develop any skin problems within a few weeks prior to your scheduled surgery, please call your physician as they will likely need to see you and assess this issue.

Because the bowels can become sluggish after surgery, it is important to eat a diet rich in fruits and fiber and drink plenty of water at least 2 weeks prior to surgery. This will help prevent constipation.

Prepare Your Home

Make your home user friendly. Pick up clutter, loose rugs, wires and cords, and other things that could be a risk for a fall. This would be a good time to have "grab" bars installed in showers and around your toilet. You need clean sheets for the night before surgery (when you are taking the medicated showers) and for when you get home from the hospital.

Discourage your pets from sleeping in your bed with you. This is most important the night before surgery and for a number of weeks after. It has been shown that patients who sleep with pets have more infections after this type of surgery.

Have freshly laundered clothes to wear to the hospital and to wear on the ride home from the hospital.

Upper Extremity Exercises

Using a walker or crutches requires strong upper body muscles. Strengthening exercises can be performed which will help prepare you for "walking on your hands."

Wall Push-ups can be done by standing arm's length away from a wall. Keep your body stiff and bend your arms until your head touches the wall. Slowly push away from the wall, and then repeat.

Chair Push-ups are done in a chair with arms. Sit in the middle of the chair with your hands on the arms and your elbows bent behind you. Pushing with your arms, lift up your entire body, trying not to use your legs. Your feet may stay on the floor. Hold for 10 seconds then slowly lower yourself down. This method is most like using a walker or crutches.

Hand Exercises should be done to prevent hand soreness when using a walker or crutches. Squeeze a rubber or silicone ball several times throughout the day.

Your hospitalization

Before Your Admission

There are many important things to be done before being admitted to the hospital. Once you decide on surgery and have picked a date then start accumulating a medication list and write down your medical history. Make copies for you and the other caregivers. Everybody will be asking about your medications and medical history. You need to do this. Make it accurate as this will be used to care for you in the hospital.

You will often be asked to see a medical doctor and cardiologist for "clearance" for surgery. They will be making a risk assessment so that your surgery can be done safely. When you see your medical doctor or cardiologist ask for copies of labs, ECG's etc. and bring them to the pre-op visits. This will help assure that your surgery won't be postponed.

10 days prior to your surgery you will need to stop taking some medications such as arthritis medications (NSAIDS). Often your surgeon has a list of medications to stop, but if you have a question, call the pre-op nurse at Shasta Regional Medical Center and they can give you guidelines.

Pre-op Surgeon Visit

You will be seen in your surgeon's office for a pre-operative exam prior to surgery. At this appointment your surgery will be explained and your questions will be answered. Please make sure to complete and bring any forms required by your surgeon.

Pre-op Hospital Visit

You will need to visit the pre-op Nurse at Shasta Regional Medical Center. This is very important and necessary. Your medications will be evaluated from the anesthesia prospective. They will check your tests and labs to make sure that they meet general medical insurance, Medicare and hospital requirements. Skin preparation instructions and medication instructions will be given. Also, they will instruct you on when to stop eating and drinking. You need to comply with these instructions to minimize the risks of anesthesia and surgery.

Skin Preparation

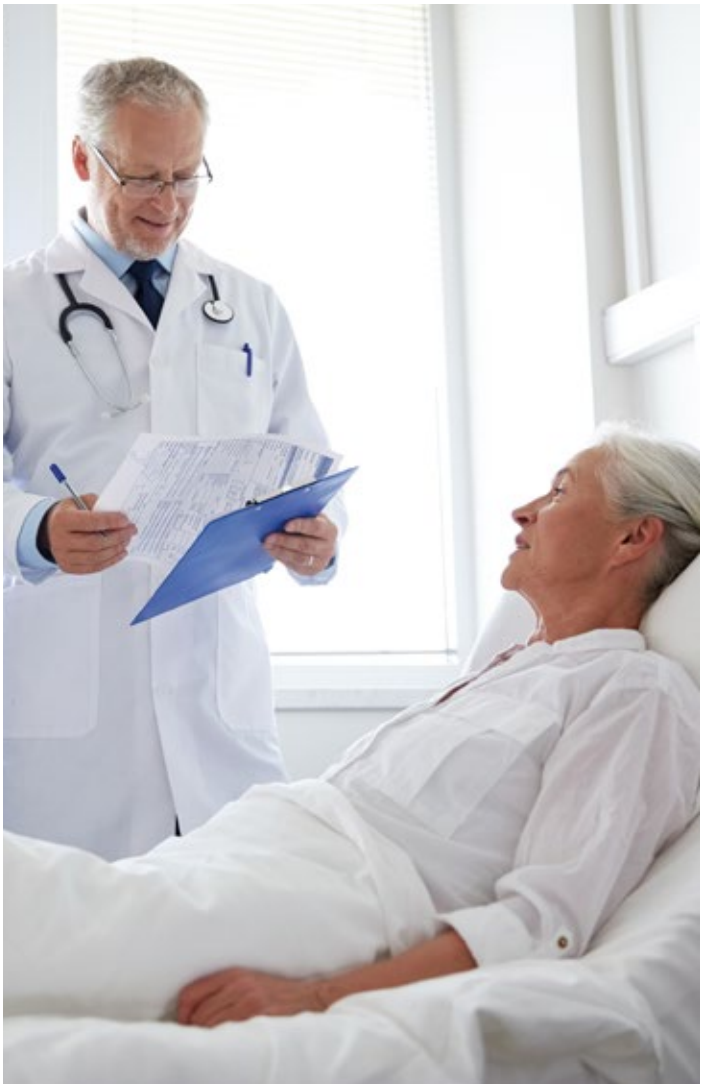
At the pre-op hospital visit you will be given a medicated soap called chlorhexidine. You will be starting four days before your surgery and taking a shower each day. The morning of your surgery you will be taking a fifth and final shower.

Use from the neck down and pay special attention to the side you are to have operated. Once you begin your chlorhexidine showers, do

not use any other soaps, lotions or creams. The showers may result in dry skin but this actually helps the drapes to stick at the time of surgery. Please pay special attention to the areas that are normally hard to get (genitalia, buttocks, or fatty folds), as bacteria tend to gather in those areas.

You will also be instilling an ointment called Mupurocin into both of your nares (nasal passages) starting four days prior to your surgery. This will be prescribed by your surgeon prior to your hospital stay. Instruction on the use of these products as well as the products themselves will be provided at your preop visit. These products and their proper use by you will ensure that your skin is properly prepared and free from bacteria that could potentially cause infection or complications in your new joint. It is not intended for your face or head!

It is best to go to the pre-op hospital visit but on occasion, the pre-op nurses will talk to you over the phone and not in person. You can get the medicated soap (chlorhexidine 4%) at most pharmacies without a prescription.



Blood Thinners

Medications are often used to prevent clots in the legs after surgery. This is in addition to early mobilization, wiggling ankles and toes, incentive spirometry, and leg squeezers.

There are a number of medications that work to prevent clots in the legs. They include aspirin, Warfarin, special heparins, and many others. Your surgeon will pick the medication that he feels is best. Your surgeon or his assistant will talk about that at the physician pre-op visit.

The day of your surgery

You will be asked to check into the hospital approximately 2 hours prior to your surgery. The nurse at the hospital pre-op visit will give you the details. Remember to shower 5 times with the chlorhexidine soap per the instructions given to you by the hospital pre-op nurse.

PLEASE, BRING THIS WORKBOOK WITH YOU TO THE HOSPITAL.

Reread it. Use it to make notes and to remember questions. This is your personal workbook to help you recover quickly!

You will be asked to put on a hospital gown and remove loose jewelry and sometimes your dentures. It is generally a good idea to leave your jewelry and other valuables at home. It is usually OK to leave on your wedding ring.

The nurse will start an I.V. and will fit you with special compressive stockings to help prevent edema and phlebitis by keeping blood from pooling in your legs. The leg to be operated will be clipped and scrubbed with an antibiotic skin preparation. You will also be instructed on proper use of the Incentive Spirometer (breathing device) to be used after surgery.

Do not shave the area to be operated within 3-4 days prior to surgery as it can cause skin problems. We do not shave you, we clip the hair (no nicks or cuts).

The anesthesiologist will discuss types of anesthesia and relative risks. In order to reduce the risks of anesthesia, you will have been instructed to refrain from eating and drinking for a number of hours before surgery. This short fast usually begins at midnight before surgery. For some cases that are later in the day, you may be allowed to fast beginning early in the morning. At the preoperative hospital visit, the hospital nurse will advise you of what time to begin fasting. It is critical that you follow these instructions as the consequences can include serious complications after surgery.

Your surgeon will pay you a visit. He will check the chart and then talk to you. He will make sure all of your questions have been answered. He also will explain to your family how long the surgery will take and when he will go visit them after everything is done. Please note that only part of the time in the operating room is the surgery. A rule of thumb is that it takes an hour to do the details in addition to the actual surgery time.

You will be given a few minutes to have your relatives/friends wish you well.

When everything is ready, you will be taken to the operating room and then placed on the operating table. The anesthesia and other medications make it hard or impossible to urinate for a day or two, subsequently a catheter will be placed in your bladder. The catheter is usually removed on the first or second day after surgery.

After the anesthesia is in place, you will be positioned for your surgery. Most knee surgeries are done with you on your back. A tourniquet will usually be placed to keep blood loss to a minimum and speed the surgery.

Special solutions will be used to clean your skin and sterile drapes will be placed. The drapes are used to prevent contamination and reduce the chance of infection at the time of surgery.

After the surgery is completed, a sterile dressing and a compression wrap will be placed. This provides support, holds the dressing in place without tape and can be used to hold cold therapy packs to decrease pain and swelling. Some surgeons use drains to prevent deep bruising. You will be placed on your hospital bed.

After surgery

Blood Thinners

After your surgery you will be taken to the recovery room where you will be kept until the medication from your operation has substantially worn off. As the anesthesia wears off, the pain from your surgery will become apparent and the nurses will give you pain medications as needed. It has been shown that pain pills work best and with less nausea. Intravenous medications can be used as well.

The “squeezers” (pneumatic compression hose) will have been placed on your legs. The squeezers have a balloon-like pocket that massages your legs and keep the blood from pooling.

Don’t be afraid to move your ankles up and down as this will actually help to keep the blood from pooling in your legs and help keep swelling out of the legs and wound. Move your toes, feet and ankles a lot to promote good circulation. Begin toe and ankle motion while in the recovery room.
We want you to be a wiggle worm!

It is very important that you cough and breathe deeply as well as use the incentive spirometer to keep your lungs well inflated and help prevent clots in your legs.

Orthopedic Floor

You will be taken up to the orthopedic floor in your hospital bed. The nurse in the recovery room has already talked directly to the floor nurse about you. They share important information about surgery, medications and how you are doing.

Once on the orthopedic floor, your nurse will introduce himself/herself. Your nurse then does an evaluation which includes checking

your wound, checking your vital signs and reviewing your chart.

You will be instructed on the "call" light, re-instructed on the wiggle the toes principle, re-instructed on using the incentive spirometer. To help make your pain tolerable, there will be numerous strong pain medications available. Oral pain pills tend to work best with less nausea but, for the first day or two after surgery I.V. narcotics will be available. If you are not receiving good pain control, please advise your nurse.

You need to ask for pain medications. Make sure to request your pain medications when you begin to feel uncomfortable.
DO NOT WAIT until you are in a lot of pain, as it takes time for narcotics to take effect.

Usually the blood counts are checked every morning that you are in the hospital to make sure that all is well. During your hospital stay, your blood will continue to be thinned to help prevent blood clots or phlebitis. Some of the anticoagulant (blood thinner) medicines (usually Coumadin) need lab draws every morning. The amount of the anticoagulant medication will be determined by your blood test.

The pneumatic hose (squeezers), which massage your legs, will only be using while you are in the hospital.

At first, you may not feel like eating. After a few days, your appetite will return. It is very important that you do your best to drink plenty of fluids to replace those lost during surgery, and to maintain a good urine output. Usually a catheter is required to drain your bladder. This catheter will remain in place for a minimal amount of time (just long enough to allow proper urination). Urinary tract infections from the catheter are rare if the catheter is removed early (one or two days) while the antibiotics are still being excreted in the urine.

If you have no appetite, a supplemental shake may be helpful. Ensure or Boost is a good idea if you are unable to eat and maintain a healthy diet.

Physical therapy will usually begin the day of surgery. If your operation is later in the day, you can expect to be up and walking with a therapist by the next morning. The physical therapists will work with you on a regular basis, emphasizing walking and special exercises to improve strength and function. Before you go home you need to be safe and independent in self-care. This includes, in and out of bed, walking, going to the toilet, and even stairs.

The length of stay in the hospital is quite variable. For routine knee replacement surgery, the hospital stay in usually 2-3 days. A small percentage of patients who are very fit and have good help at home can go the day after the surgery and even more rare, the day of surgery. Depending on your home situation, it may be necessary to transfer you to a rehabilitation facility until you are able to do all the things required to care for yourself once you go home. In a majority of cases, if you have someone to help you at home, you

are sent directly home. A discharge planner will discuss your options with you before a decision is made prior to your discharge from the hospital.

Physical Therapy in the Hospital

The role of the physical therapist is important to your recovery. The primary reasons for having your operation are to allow you to get around more easily and do the things you want and need to without pain. Physical therapy will help you achieve these goals in a safe manner. It is critical that you do your best to cooperate with the therapist whose primary goal is to help you gain independence in your activities and to teach you how to move correctly.

While you are in the hospital, the therapist will emphasize movement with transfers in and out of bed, to a chair, and to the toilet. The therapist will also help you walk. It is important that you learn how to climb up and down stairs and curbs safely. Be sure to tell the therapist how many stairs you have at your home so they can prepare you accordingly.

Number of stairs in your home:_____

Questions: _____

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Hospital discharge

You will be discharged from the hospital once you have met the goals of physical therapy, your pain is well controlled, your incision is healing well, and you have no signs of any problems.

If you have someone at home to help you with meals and who can stay with you for the first couple of weeks, it is likely you will be discharged home.

Rehabilitation Hospital
(Transitional Care Unit)

At times you may need additional therapy or help caring for yourself if you have no one at your home when you are discharged. In these cases, you have the option of going to a Transitional Care Unit (TCU). The average TCU stay is 5-7 days (sometimes longer, sometimes shorter). During your stay you will work with physical therapists that will help you to gain the strength and stamina to better care for yourself. Your medical care while at the TCU will be the responsibility of a rehabilitation physician or a primary care physician on staff at the facility.

Medications

Generally, by the time you are discharged home, you likely have already started your usual medications again, with the possible exception of your arthritis medications. Generally you will be instructed to resume all or most of your preoperative medication. You will be provided with specific instruction. Often the blood thinners are continued for a while after you are home. Be sure to drink lots of liquids to help prevent constipation, which is a usual side effect from narcotics.

On occasion your regular medications are changed. Be sure to inform your primary medical doctor about any additions or changes in medications that you were taking prior to surgery.

Care of the Incision

There are certain changes that take place in the skin about the incision which are expected after surgery. There will be increased warmth, redness, and lumpiness. These are all due to the body's response to healing and include increased circulation and scar formation. Often times there will be bruising and discoloration.

You may also experience numbness about the outside part of the front of the knee. This usually resolves with time but may take 18 months. The warmth in your knee will take 6 months to disappear. Do not be alarmed as this is just your body healing.

There are many layers of sutures that hold the tissues together. If the skin is closed with a special suture just below the surface then there will be steri-strips or a "glue" covering the incision. With this type of skin closure, the dressing is no longer needed after just a few days. If staples are used, then keep a dressing over the staples (use the KneeRap to hold the dressing in place over the staples without tape) until the staples are removed (10-14 days).

For a few months your incision may feel lumpy and bumpy, but the sutures will absorb in time. Ask your surgeon when it is OK to shower.

As noted above, some swelling, warmth and redness are expected after surgery and may last for several months. Cold therapy can help the pain and decrease the swelling. The KoolPak's from the hospital can be used. If you use ice, be sure to place a towel on your leg between the ice and your skin. Ice is too cold to place directly on a fresh incision. Some drainage from the incision is common during the first few days after surgery. If you notice persistent drainage or new drainage after you are home, please call your surgeon so he can make sure you are healing normally.

Ankle Swelling

It is also necessary to spend some time each day with your legs elevated above your heart. This is most important if you have swelling in your ankles or legs. Spend ½ hour in the morning, and ½ hour in the afternoon with your legs above your heart.

Please note that sitting in a reclining chair is not enough elevation! You must be lying down on your back with your leg elevated on pillows (your foot must be above your heart).

There is a tendency towards puffiness and swelling in the operated leg. The elevation should minimize this. If you have more pain and swelling than expected, please call your doctor so this can be evaluated.

Dental Procedures, Surgeries or Infections

Our blood circulates throughout our entire body. This means that an infection in one part of the body has potential to spread to other places by way of the blood stream. It is rare, but has been know to occur. An infection in one part of the body can infect a joint replacement. It is therefore very important to help prevent the spread of infections.

For routine dental procedures (cleaning) we ask that you wait for 3-6 months after surgery. After three months, patients who have diabetes or patients that have a poor immune

system may do best to take an antibiotic at the time of a dental procedures. Ask your dentist about whether or not they recommend an antibiotic.

Some surgeries have potential for bacteria entering the blood stream and may also require antibiotics. Please consult the surgeon performing the procedure and let them know you have a joint replacement. They will advise you if antibiotics are needed.

Bladder, kidney or skin infections need to be treated appropriately. Viral infections, such as the flu or a cold do not have the capacity to infect a joint replacement and therefore do not need antibiotics.

Weight Bearing

After surgery you will be able to bear weight on your operated knee. Usually you can put as much weight as pain allows. Sometimes in very heavy patients, there will be some weight bearing restrictions. The physical therapists will know your limitations and follow the orders given by your surgeon. You will begin walking with a walker or crutches until your pain decreases and your strength increases. This will occur gradually. You will then graduate to the use of a cane until you can walk well without a limp and are safe while doing so. The progression to a cane varies for everyone. Don’t be discouraged if you don’t tolerate the cane initially. You may need to remain on a walker or crutches until your first follow-up appointment.

Physical activity and home physical therapy

Your rehabilitation will continue at home. You should include regular walks and home exercises. Please keep in mind the following level of importance in what activities you do to recover from your surgery. The physical therapist directs and checks your progress. 95% of your progress is what you do when the therapist isn't there.

#1 Walking

It is crucial that you do short walks often every day. Of all activities, walking is most important.

In the first few weeks, take short walks often. This is in your home or adjacent to your house (patio, walkway). Walk every 30 minutes or less during the day. Walk to the bathroom, get a glass of water, get a snack. Even ten steps down and ten steps back does wonders for your lungs, your bowels, your bladder and helps prevent clots in the legs. At night just do your best to sleep. You don't have to get up at night to walk as you have good blood return from your legs when you are lying flat. Maybe place a walker at your bedside for going to the bathroom.

As you feel better and stronger, get outside into the sunshine; it truly does contribute to bone healing and is a pleasant way to get your exercise.

When you start your outside walking program, begin with a modest goal – perhaps to the house next to yours, and then return home. It is important that you do not go so far that you wear yourself out and have trouble getting back. As the days go on, increase the goal bit by bit and start to build endurance. Don't be discouraged if you tire easily as it takes approximately 3-4 months for your endurance to return to the level it was before surgery. Be patient and remember it is okay to rest during the day when you first come home.

#2 Chair Exercises (Very Important)

The chair exercises are to be done all the time. They are to direct the scar how to heal and allow good motion. The 10-10 exercise is to be done whenever you are sitting. The buttock slide chair exercise stretches the scar and is the best exercise to do to improve the motion in your knee.

#3 Less Important

All the other exercises are just not as important as walking and the chair exercises. If you are too sore, or too tired, skip them for a day or two, and then begin again. Make sure you walk and do the chair exercises every day.

We have included our home physical therapy and exercise program for first time surgeries at the end of this session.

We do not believe in the "no pain, no gain" principle regarding rehabilitation after surgery. It is more important that you listen carefully to your body and use that knowledge to modify your activities. It is all right to work against your stiffness, and maybe some discomfort, but if it produces marked pain, then the activity should be changed or discontinued for a few days. As the wound heals and your muscle strength improves, try the exercises again. If you do too much, the scar and muscles will become sore and painful. If this happens, decrease your activities and exercises for a few days (don't stop walking), and then go back to the exercises, but at a less strenuous level and build up from there.

Rules to live by

Do NOT Sit in low or soft chairs or sofas.

Do NOT Sit on a low toilet seat the first few months (use elevated toilet seats if needed).

Do NOT Sit in a bathtub (shower or sponge bath instead) for 3 months.

Do NOT Use a stair-stepper or treadmill (makes good knees hurt), a recumbent stationary cycle is better.

Do NOT Sleep with a pillow packed under your knee (when you are on your back) as it compresses the veins behind the knee and slows the blood flow out of the leg.

Do Sleep with a pillow between your knees when on your side as it will be less painful.

Do Try to go outside at least once a day.

Do Elevate your legs above your heart at least ½ hour twice a day the first few months or longer if you have swelling in your ankle or leg.

Do Protect your skin by wearing long sleeves and pants when playing with animals or doing yard work.

Do Call your doctor if you have concerns.

Medical Doctor's Phone # _____

Orthopedic Surgeon's Phone # _____

Chair exercises
(very important)

10 – 10 Exercise

Purpose: For the first few months after knee replacement surgery, it is important to move your knee from one extreme (straight) to the other (fully bent). The following should be done whenever you are sitting (all day long).

Position: Sitting in a chair, with arms and a firm seat (like a captain's chair).

Sequence:

1. Place your heel (or lower leg) on a stool or cross bar of your walker so that gravity straightens your knee.

2. The back of your knee should be free so that it can straighten without resistance.

3. Stay in this position for 10 minutes and let gravity straighten your knee

4. Place your foot on the floor, slide it toward the chair until it is bent as much as it will comfortably bend.

5. Stay in position for 10 minutes.

6. Repeat exercises at 10-minute intervals while sitting.

Buttock slide exercise
(very important)

Purpose: The apprehension of bending your knee after surgery can be lessened by placing the foot on the ground where you know it won't slip or fall. The following is a bending exercise that uses a chair and your arms.

Position: Sitting in a chair, with arms and a firm seat (like a captain's chair).

Sequence:

1. Slide your buttocks (bottom) to the back of the chair.
2. Bend your knee as far as it comfortably will bend.
3. Keep your foot on the floor and your leg relaxed.
4. Using the chair arms, slowly slide your bottom forward, keeping your foot in the same place on the floor until you feel tightness and pulling in your knee. Work against the tightness (stop short of pain), a little discomfort is okay).
5. Hold for 5 seconds.
6. Slide your bottom to the back of the chair.
7. Repeat 1-6, trying to improve the bending each time. Slide your foot closer to the chair to accomplish more knee bend.
8. Repeat 10 times, at least 3 times a day.
9. Icing your knee after exercising will help decrease pain and swelling that might occur.

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50 TOP CARDIOVASCULAR

100 TOP HOSPITALS

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Shasta Regional Medical Center