



ILLINOIS
BONE & JOINT
INSTITUTE®

Move better. Live better.

Hip & Knee Joint Replacement Patient Education

ibji.com

Patient Information

Patient: _____

Date of Birth: _____

Surgery: _____

Surgery Date: _____

Surgery Location: _____

Primary Care Physician: _____

Dear Patient,

Thank you for choosing Illinois Bone and Joint Institute (IBJI). You can trust our team to work closely with you to help improve your orthopedic health and get you back moving again. We will listen to your needs and provide you with the outstanding care you deserve.

As the surgeon leading your team, my goal is to relieve your pain and provide you with as rapid a recovery as possible while restoring function to your replaced joint. It is my hope that as you recover you will trust our team to help support and guide your care during your recovery. Many people can be frightened by surgery because they often do not know what to expect. This packet provides you with a lot of information to help alleviate those fears.

In this packet you will find documents created to help guide you, step-by-step while you prepare for your surgery and successfully complete your recovery. Please review and feel free to call us if you have any questions.

Knowing that you have considered many options for your care, we are very grateful that you have chosen IBJI and my team for your surgery. Please know that we are committed to your care.

If you have any questions or concerns, please reach out to me at any time, I'm here for you.

Best Regards,

Your Physician Care Team

Daytime Hours Office Phone Number: _____

Evening Weekend On-Call Coverage Number: _____

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Pre-Operative Information

Pre-Operative Checklist - Appointments and logistics before your surgery

- You will need to schedule and see your primary care physician within 30 days of surgery for pre-operative medical clearance.
- Schedule a preoperative visit with your surgeon and the surgical team if there are any questions regarding your surgery that have not been answered at the time of your last office visit.
- Schedule your initial post-operative office visit with your total joint surgeons team following surgery.
- Schedule your participation in a total joint education class within one month of your surgery.

Advocate Condell Hospital	Phone: 847-990-5555
Advocate Illinois Masonic Hospital	Phone: 773-296-5186
Advocate Good Shepherd Hospital	Your Surgeon will provide information for this class.
Advocate Lutheran General Hospital	Your Surgeon will provide information for this class.
Amita St Joseph Hospital	Phone: 773-665-8455
Community First Hospital	Phone: 847-933-6700
Northwest Community Hospital	Phone: 847-618-3775
Northshore University - Skokie Hospital	Phone: 847-933-6700
Northwest Community Hospital	Phone: 847-618-3775
Northwestern Lake Forest Hospital	Phone: 847-535-6468
Swedish Covenant Hospital	Phone: 773-784-5756
Vista Medical Center	Phone: 847-360-2173
Weiss Hospital	Phone: 773-564-5680

- Schedule your post-operative out-patient physical therapy visits if you are going home after your surgery. Note that out-patient physical therapy is recommended directly following your surgery.
- Expect a phone call from the anesthesia department of the facility at which you will be having your surgery a few weeks prior to your scheduled surgery date.
 - Please plan to set aside about 20 minutes for this call.
 - In preparation for this call, have an updated list of ALL medications and supplements you take at home.
 - Typically the surgery center or hospital will call you again the day or evening before your surgery to update you on the time of your surgery and when you will need to arrive.
- Expect a call from the IBJI OrthoSync program to schedule a pre-operative visit with a physical therapist who will assess your care needs and recommend a care plan for your recovery and therapy. The recommendation is based upon thousands of patients who have successfully recovered from surgery just like the surgery you are planning. This evaluation and the recommendations will take about 60 minutes, but the planning and time invested will pay dividends during your recovery.

Pre-Operative Health Optimization Checklist

Important things to do in preparation for your surgery

- Review the Patient Optimization Guidelines. (pages 5-6)
- Review Preoperative Medication Instructions. (pages 7-9)
- Use Hibiclens soap to wash your body five days before surgery. (See instructions on page 10.)
- Review the morning of surgery checklist. (page 11)
- Pre-Operative Dental Evaluation - For patients with dental symptoms or patients not receiving regular dental care, a pre-op dental evaluation and/or treatment is recommended to be completed more than one week prior to surgery.
- Eat a well-balanced diet, supplemented by a daily multivitamin with iron. Avoid consuming foods high in sugar and white bread/starch products.
- Report any recent or past history of infections to your surgeon. Surgery cannot be performed until all infections have cleared up to avoid potentially serious complications after surgery.
- If you are a smoker, ALL smoking should be stopped for at least one month prior to surgery and discontinued for at least 1 month following surgery.
- If you have diabetes mellitus, check your Hemoglobin A1C (Hgb A1C) test (a blood draw lab test) within three months prior to surgery to make sure your diabetes is being well controlled.

Home Optimization

Prepare your home for your recovery

- Remove clutter from your home to avoid falls - loose rugs, small tables.
- Wash your sheets and bedding prior to surgery.
- Arrange for someone to help out during your early recovery with activities of daily living such as cooking, shopping and laundry.
- Arrange for pet care or assistance during your recovery until you can manage.
- Install grab bars in your bathroom tub or shower to help your balance following bathing after surgery, or purchase a shower chair.
- At the time of your Pre-Operative Evaluation by your OrthoSync IBI physical therapist, specific recommendations will be made to prepare your home for your recovery.



Pre-Operative Patient Health Optimization Guidelines

We recognize that every patient is unique and will be treated as such. Below are recommendations to ensure that you recover from your surgery as safely and quickly as possible.

Smoking

Smoking significantly increases your risk of a serious complication following surgery. Smoking increases the risk of the following complications: post-operative wound infections that may require additional surgery and may cause failure of the surgery, delayed wound healing that slows therapy and functional recovery, blood clots in the surgical limb, stroke and heart attack.

- All patients should quit smoking completely for four weeks before surgery and for a minimum of four to six weeks after surgery.
- If you are looking for the time to quit, the time is now.
- Please let us know if we can provide you with tobacco cessation resources.

Body Weight

Obesity is defined as a large Body Mass Index (BMI). A BMI of 40 or more increases your risk of complications following surgery.

- The risk of developing a surgical infection is increased by more than 20 times.
- Obesity also increases the risk of pulmonary (breathing) and anesthesia complications.
- Obtaining a healthy weight or losing weight prior to surgery will help decrease your risk of complications significantly.

Sleep Apnea

Sleep apnea is a medical condition in which normal breathing patterns during sleep are interrupted causing an increased risk of heart disease. Sleep apnea is often seen with obesity but can also be found in patients who are normal weight.

- A short sleep apnea risk screening questionnaire/quiz will be given to you by your IBJI care team prior to surgery.
- If the screening questions are positive, you will be asked to be evaluated by a sleep apnea specialist before surgery.
- Patients with sleep apnea who are not diagnosed prior to surgery are at increased risk of heart attack following surgery.
- If you know you have sleep apnea, please tell your IBJI team and bring your sleep apnea sleep aide device with you to the hospital.

Dental Health and Evaluation

Poor dental health increases the risks of surgical site infection following surgery. If you have any of the following, we advise you to see a dentist prior to your surgery for dental clearance to help prevent an infection following surgery:

- You are a current tobacco user.
- You have NOT been seen by a dentist in more than a year.
- You take opioids (narcotics) regularly.
- You have a history or active dental or gum infections.

Active Opioid (Narcotic) Use

If you are regularly taking opioid medications (narcotics) pre-operatively, we strongly encourage you to gradually cut back on your narcotic usage with a goal of stopping opioid use prior to surgery. At a minimum, cutting your daily dose in half 3 weeks before surgery will help your recovery. If you are able to completely wean off narcotics for 3 to 6 weeks before surgery, this is ideal. Preoperative opioid (narcotic) use has been shown to be a risk factor for decreased satisfaction with the outcome of your surgery and makes post-operative pain control more difficult. As a result of poorer pain control, larger doses of opioids following surgery increase your risk of opioid overdose and dependency. If you are taking narcotics pre-operatively, discuss this with your surgeon. A referral to a pain management physician may be recommended.

Diet and Nutrition

We recommend a well balanced low carbohydrate diet for at least 2 weeks before and after your surgery. We encourage patients to avoid consuming foods high in sugar and white bread/starch products. High carbohydrate diets increase your blood glucose (sugar). Lower post-operative blood glucose (sugar) levels have been shown to decrease the risk of developing surgical infections. If you are thin, have lost weight recently or have had gastric surgery, you may be at increased risk for poor nutrition, which will increase your risk of surgical infections. If malnutrition is a concern, your surgeon may order blood tests to better evaluate your nutritional status (serum albumin, total lymphocyte count).

Diabetes Mellitus

A poorly controlled blood glucose (sugar) level near the time of surgery places you at higher risk for complications, including wound infections, following surgery. If you are diabetic, you should have your Hemoglobin A1C (HgbA1C) test completed within 3 months prior to surgery so you can be best optimized for surgery. For most patients, a HgbA1C greater than 7.5 prior to surgery is a concern. A referral to a diabetic specialist may be needed if your diabetes is not well controlled prior to surgery.

Pre-Operative Medication Instructions

Certain medications may interact with other medications needed during your surgery. Some medications may have an adverse effect on the wound healing required following surgery. The following list outlines medications that you should stop before surgery as well as when you can resume them following your joint replacement surgery.

Please review a complete list of ALL medications and supplements you take 1 month before your surgery with your surgeon and primary care physician to make sure that you understand which medication should be modified before or after your surgery.

Opioid (Narcotic) Medications

If you are taking opioid medications (narcotic medications) before your surgery, the opioid (narcotic) medication used for pain control following your surgery will be less effective. Please tell your surgeon the opioid (narcotic) medication, dosage and frequency you are taking as soon as your surgery is scheduled, so the opioid (narcotic) medication can be gradually stopped or at least substantially reduced before your surgery. (See page 7.)

The most common opioid (narcotic) medications include:

- Hydrocodone
- Norco
- Opana
- Oxycontin
- Percocet
- Vicodin

Anti-Rheumatic Medications

Several anti-rheumatic medications reduce your ability to resist infections following surgery. You must speak to your surgeon and/or rheumatologist for instructions on when to stop your anti-rheumatic medications before surgery and when it is safe to resume after surgery.

Prednisone and Methotrexate

Some patients with rheumatoid arthritis are on steroid medications - most often Prednisone. You can continue taking steroid medications before your surgery, but you should tell your surgeon if you are on steroid medications prior to surgery so a steroid supplement can be given on the day of your surgery. Many rheumatoid arthritis patients are also on Methotrexate, which should be continued during your surgery.



Blood thinning medications which must be stopped seven days before surgery

Several medications, usually used as arthritis anti-inflammatory medications, will also thin your blood during and following surgery if not stopped seven days before surgery. If you are on any of the medications listed below, discuss the use of these medication with your surgeon, primary care physician or cardiologist who placed you on the medication. Unless your surgeon, primary care physician or cardiologist recommends continuing these medications, you should stop these medications seven days prior to surgery.

- ALL over-the-counter Vitamins and Herbal Supplements
- ALL Aspirin (Anacin, Ascripton, Bayer, Bufferin, Ecortin, Excedrin)
- Choline and Magnesium Salicylates (CMT, Tricosal, Trilisate)
- Choline Salicylate (Arthropan)
- Diclofenac Potassium (Cataflam)
- Diclofenac Sodium (Voltaren, Voltaren XL)
- Diclofenac Sodium with Misoprostol (Arthrotec)
- Diflunisal (Dolobid)
- Etodolac (Lodinie, Lodine XL)
- Fenoprofen Calcium (Nalfon)
- Flurbiprofen (Ansaid)
- Ibuprofen (Advil, Motrin, Motrin IB, Nuprin)
- Indomethacin (Indocin, Indocin SR)
- Ketoprofen (Actron, Orudis, Orudis KT, Oruvall)
- Magnesium Salicylate (Arthitab, Bayer Select, Doan's Pills, Magan, Mobidin, Mobigesic)
- Meloxicam (Mobic)
- Nabumetone (Relafen)
- Naproxen (Naprosyn, Naprelan)
- Naproxen Sodium (Aleve, Anaprox)
- Oxaprozin (Daypro)
- Piroxicam (Feldene)
- Salsalate (Amigesic, Anaflex 750, Disalcid, Marthritic, Mono-Gesic, Salfex, Salsitab)
- Sodium Salicylate
- Sulindac (Clinoril)



Blood thinning medications which must be stopped five days before surgery

Several blood thinning medications are used to prevent blood clots seen in patients with abnormal heart rhythms (atrial fibrillation or flutter) or blood clots in the veins of their legs (deep vein thrombosis). If you take any of the blood thinning medications below, contact your surgeon, primary care physician or cardiologist that prescribed these medications for instructions about use during the surgery. These medications thin your blood during and following surgery if not stopped five days before surgery.

Unless your surgeon, primary care physician or cardiologist recommends continuing these medications, you should stop these medications five days prior to surgery.

- Warfarin (Coumadin)
- Eliquis
- Pradaxa
- Xarelto
- Plavix



One Day Before Surgery - Other Medications to Stop for Anesthesia

Several medications, usually taken to lower your blood pressure (antihypertensive medications), can interfere with anesthesia during your surgery. If you take any of the medications listed below - unless the anesthesiologist or nurse anesthetist recommends continuing these medications - these medications should be stopped (1) day prior to surgery and not taken on the day of surgery.

- Benazepril (Lotensin)
- Candesartan (Atacand)
- Captopril (Capoten)
- Enalapril (Vasotec, Renitec)
- Eprosartin (Teveten)
- Fosinopril (Monopril)
- Irbesartan (Avapro)
- Lisinopril (Lisodur, Lopril, Novatec, Prinival, Zestril)
- Losartan (Cozaar)
- Olmesartan (Benicar)
- Perindopril (Coversy, Aceon)
- Quinapril (Accupril)
- Ramipril (Altrace, Tritace, Ramace, Ramiwin)
- Telmisartan (Micardis)

Note: Tylenol and Celebrex may be continued up to the night before surgery.

Preoperative Skin Cleansing Instructions

To help prevent infections following surgery, you should cleanse your skin thoroughly with Hibiclens soap (can be purchased at any pharmacy) in the shower for the 5 days prior to surgery.

Pour a quarter size amount of liquid CHG/Hibiclens soap onto a wet, clean washcloth, and apply to your entire body FROM THE NECK DOWN (including groin folds). Do NOT use on your face, hair, or internal areas. Pay special attention to the site of your surgery and cleanse the area thoroughly.

The Hibiclens soap can be found in local pharmacies, online, or in IBJI DME supply stores. The typical cost is less than \$10.





Morning of Surgery Checklist

Use to be prepared for the day of your surgery.

You will receive a call from the anesthesia nurse the day prior to your surgery to review specific instructions before your surgery.

- Bring a copy of your photo ID and a copy of your insurance card.
- Bring crutches, cane, or walker if you have them at home prior to surgery and you plan to use them following surgery. (These will be provided following your surgery if you do not have them already.)
- Come accompanied by a friend or family member.
- Plan to arrive a couple hours prior to your scheduled surgery time. (This instruction varies by facility, and specific instructions will be given during your pre-operative call from the surgical facility.)
- Dress in clothes that you will wear during your recovery:
 - Comfortable, easy to put on, slip resistant shoes
 - Loose fitting underwear and pants
 - Loose fitting pull-over shirt or top
- Do NOT bring ANY expensive jewelry or cash.
- You will meet your IBJI surgeon and anesthesia team at the facility prior to your surgery.

Post-Operative Recovery Care

Post-Operative Care in Surgicenter or Hospital

Your stay in the surgicenter or hospital following surgery will be organized to get you moving and independent as soon as possible. In a surgicenter, you will be up and walking shortly after surgery and will leave later the same day as surgery. In a hospital, you will also be up and walking the same day as surgery. Most patients will be discharged after one to two nights in the hospital.

For most hospitalized patients, you will begin physical therapy the day of surgery. If your surgery is late in the day, you may begin your physical therapy the following morning in the hospital. You will be taught to be independent walking with a walker, how to get in and out of bed and how to go up and down stairs. You will also be taught how to dress, shower and use the toilet so you can be independent when you arrive home.

Post-Operative Pain Management

You will be started on a pain control regimen following your surgery to successfully minimize your pain. Early activity is important and helps diminish pain. Local cold pack applications or cooling pads to your surgical site also help reduce pain. You will be placed on several medications that in combination, when taken regularly, help reduce your pain. These medications will be listed in your surgicenter or hospital discharge instructions. Adjustments can be made if needed to customize the pain control for every patient. Prior to discharge from the surgicenter or hospital, you will receive your prescriptions for your pain medications. Make sure you understand the instructions, and fill the prescriptions before you get home.

Post-Operative Blood Clot Prevention

You will be given a medication to prevent blood clots after your surgery. For most patients, the medication is over the counter aspirin. For some patients, a prescription blood thinner will be given. Make sure you understand what is being recommended for you and how long you are to take the blood thinner medication following surgery. For most patients it will be at least three weeks.

Destination following Surgicenter or Hospital Discharge

The goal for all patients with successful joint replacement surgery is a return to home and community activities. All surgicenter and almost all hospital patients are able to go directly home following total joint replacement surgery. Please make arrangements for someone to assist you at home for the first few days after you arrive home. If this individual works, please have them consider requesting time off from work so they may be available to stay with you.

Transportation Home

Plan in advance for a friend or family member to drive you home. A car with a wide door that permits the front seat to be moved back to give you leg room will be most comfortable. If you have appropriate transportation, you may begin outpatient physical therapy immediately.

Arriving Home

Arrange for family or friends to help you at home. There are two different recommendations that will be made by your surgeon, your care team and your OrthoSync team:

- Direct to Out-Patient PT - For most, this recommendation will have been made at the time of your OrthoSync evaluation. You will have already arranged for your first appointment, which will usually be the following day after you arrive home.
- Home Health PT - For some, Home Health nursing and Home Health PT will be recommended. Your hospital discharge planner will arrange your first Home Health caregiver visit for the day after you arrive home. Your condition will be assessed, and physical therapy will usually start the following day by the Home Health physical therapist.

With either option, start a program of activity in your home as soon as you arrive. Get up and get moving around at least once each hour. When you are sitting, elevate your surgical leg to minimize swelling. When you are independent at home and able to leave the house, you are ready for out-patient PT. Out-patient PT is often more effective than therapy in your home. You must be discharged from all home care services prior to beginning outpatient physical therapy.

Your surgeon's preferences for Home Health Agencies are:

Skilled Nursing Facilities

For a few patients with specific medical needs that cannot be supported with home health services, a discharge to a skilled nursing facility may be recommended. Although there is rehabilitation care in these facilities, activities on a daily basis are actually less than when you are at home - so strive to get home as soon as safely possible. Your length of stay in the skilled nursing facility will be determined by your OrthoSync evaluator and usually will be no more than five to seven days. Please see the attached handout for rehabilitation facilities that 'partner' with Illinois Bone and Joint Institute to help you minimize your stay and maximize your recovery.



General Post-Operative & Home Care Instructions

Wound Care

A dry dressing will be placed on your wound before you leave the surgicenter or hospital. You will be given dressing and wound care instructions. A sealed flexible absorbent dressing is often left on the wound for several days following surgery and is impervious to water, so the dressing can be left on during showering. The skin around your wound should not be painful to touch, red or swollen. Many surgical wounds will have some bruising of the skin near the incision as a part of normal healing. The wound should not be left uncovered, unless it is dry and without significant drainage of blood or clear fluid. If during your recovery you develop:

- Increasing redness of your wound
- Increasing pain when you touch the skin around your wound
- Increasing drainage from your wound - blood, clear fluid or cloudy fluid
- Increasing redness above the wound area
- Fever, with or without chills, greater than 101° F

call your surgeon/surgeons office to be seen and evaluated.

Blood Clots

Joint replacement places you at risk for developing a blood clot in your leg for the first four to six weeks after surgery. To reduce the risks of blood clots, several recommendations are made:

- Stay active. Get up each hour and take short walks.
- Avoid sitting for long periods of time with your leg dependent. Keep your leg elevated when resting by lying down and elevating it on a pillow, or by elevating it on a stool when sitting.
- A blood thinning medication (anticoagulant) is usually recommended following surgery - most commonly aspirin. Specific instructions for your blood thinning medication will be given to you at the time of discharge from the surgicenter or hospital.
- Elastic stockings may be recommended to some patients who have varicose veins, chronic leg swelling before surgery or who are at increased risk of blood clots. These stockings should be worn continuously during the day for two to four weeks, except to wash them following surgery based upon the instructions given to you as you left the surgicenter or hospital. As the surgical swelling decreases, the stockings can be removed, washed and dried at night. They should be replaced in the morning and discontinued based upon instructions from your surgeon - often at the time of your first post-operative visit.

If during your recovery you develop:

- Sudden increase in calf, foot, or lower leg swelling
- Increasing calf pain
- Shortness of breath
- Chest pain

contact your surgeon/surgeons office to be evaluated for a possible blood clot in your leg (deep vein thrombosis) or blood clot that has traveled to your lung (embolism).

Activities of Daily Living

Showering: If you have a sealed waterproof dressing, you can take a quick shower the day you arrive home. Do not remove the dressing. If you have a dry absorbent dressing, you can shower two or three days after you arrive home. Remove dressing after bathing and recover the wound with a dry large 'band aid' dressing each time you bathe. Be careful with the wet floor near the shower - use grab bars and/or family for your balance so you do not fall.

Tub Bathing/Swimming/Hot Tubs: These activities are not permitted until you have received approval from your surgeon and the wound is completely healed - typically at one to two months post-operatively.

Walking: You are encouraged to bear full weight and begin walking immediately. You must use an assistive device (walker, crutches or cane) for at least two weeks until you get your strength and balance back. Your therapist will let you know when you are no longer required to use an assistive device. Most patients, after about three to four weeks, have graduated to walking without any assistive devices.

Stairs: You will be taught in the hospital how to go up and down stairs. Typically patients can navigate several stairs the day following surgery, one step at a time, one foot at a time. To go up stairs, lead with your good leg. To go down the stairs, lead with your surgical leg. (Up with the Good - Down with the Bad.)

Recumbent Bike/Exercycle: If you have a recumbent bike or exercycle in your home, after several days you can adjust the seat to a comfortable position, and begin riding for short periods of time. Pedal forwards and backwards, without resistance.

Driving: Driving should not be resumed until

- You are off opioids (narcotics)
- You are walking comfortably with full weight on your surgical leg
- You are comfortable getting in and out of the car on your own
- You are able to comfortably move your leg and both reach and depress the pedals needed to safely drive your car

For left lower extremity surgery, most patients are able to resume driving in approximately two to four weeks. For right lower extremity surgeries, most patients are able to resume driving by approximately four to six weeks; however, this varies from patient to patient. This can be discussed at your post-operative visit with your surgeon, to determine what is safest and most appropriate for your situation.

Sports and Light Activities: Sports and light activities can be resumed when you are walking without a limp and without a cane, crutch or walker. This is usually approximately two months following a total hip replacement and two to three months following a total knee replacement. You are encouraged to begin enjoying low impact activities that may have been painful or impossible for you prior to surgery, such as walking, hiking, swimming, cycling, treadmill, elliptical, golf, and doubles tennis. Higher impact activities such as basketball, volleyball, and long distance running are not routinely advised and can be discussed with your surgeon.

Physical Therapy: Physical therapy (PT) will be started on the day of your surgery. PT and exercise will be continued during your recovery in the hospital, in a skilled nursing facility if required, at home with home PT, and finally, in an out-patient physical therapy facility. Therapy includes all your activities and should be done regularly throughout your recovery. PT usually lasts up to four to six weeks after surgery, and the frequency and intensity are based upon your recovery.

Return to Work: Restoring your energy, mobility, and comfort is necessary for you to be able to complete desk or office work. This usually takes about four to six weeks, and sometimes you will return to work part time initially, until you are fully recovered. Restoring your full energy, mobility, and comfort necessary for physical labor takes longer, usually two to three months.



Discharge to Skilled Nursing Facility

Most patients undergoing total joint replacement are able to go home directly following surgery, whether from a surgicenter or from a hospital, following a one to two day stay. If, in the hospital, you do not meet your physical therapy goals necessary for safe discharge home, you may need to go to a Skilled Nursing Facility (SNF).

Please call the number on the back of your insurance card to verify that the SNF coverage recommended is available to you if medically necessary, and find out what facilities are in your network. Please note that stairs at home, living alone, or having a spouse that works does not automatically qualify you for admission to a SNF. This is a planned surgery and arrangements for a designated caregiver should be made prior to surgery. Insurance companies will only approve your stay after they review your progress with therapy.

Your surgeon will provide you a list of Illinois Bone & Joint Institute partner facilities. You can review their ratings at www.medicare.gov/nursinghomecompare.

Post-Operative Medication Instructions

You will be given prescriptions prior to your discharge from the surgicenter or hospital. Your specific medications, including dosage and frequency, will be based on your individual needs. The list below is designed to help you with frequently prescribed medications following joint replacement surgery, but your specific medications may not be covered in this list.

Blood Clot Medications

For patients at LOW RISK of Blood Clots: to thin your blood following surgery you most likely will be prescribed:

- Aspirin 81 mg or 325 mg capsules (ASA):
 - Take one tablet every twelve hours for four weeks after surgery

For patients at HIGH RISK of Blood Clots: to thin your blood following surgery you will most likely be prescribed one or two of the medications below:

- Coumadin (Warfarin):
 - Your daily dosage will be based on routine laboratory results ("INR")
 - May be recommend for two to six weeks, depending on your individual needs, following surgery
- Lovenox (Enoxaparin):
 - An injection that can be given by a nurse, a family member, or yourself once per day
 - May be recommended if you are on Coumadin until your INR level is high enough to indicate your blood is thin enough to prevent clots
 - May be recommended without Coumadin for four to six weeks, once per day, until you are fully mobile

Pain Medications

Non-Medication Pain Reduction Strategies: Pain is present following surgery as the wound heals. Pain is a normal part of healing and recovery and naturally subsides during the first few days. Several strategies are important to diminish the pain as you return home following your surgery.

Effective Non-Medication Pain Reduction Strategies:

- Activity: Getting up and moving regularly during early recovery help the pain subside. Immobility increases pain. Doing some light walking and bearing weight on your surgically repaired joint will help reduce pain and promotes healing of the surrounding muscles needed to support the replaced joint.
- Cold Packs/Ice: Apply cold packs/frozen vegetable packs/ice packs to the wound, while protecting the skin with a light clean towel between the ice and the skin. This helps reduce pain and swelling. Local ice application for fifteen minutes following periods of activity helps reduce pain.
- Anxiety: Pain is aggravated and intensified by anxiety. If your pain seems more intense than expected and the pain strategies are not working, call your surgeon. Many times a discussion about your pain can reassure you that your experience is normal or help suggest other things you can do to feel better.

Non-Opioid Pain Medications

Pain medications can also help reduce the discomfort from the surgery. No pain medicine will remove ALL the pain. The goal is to make you feel comfortable enough that you can be up and active and be able to rest comfortably. Some pain medications can be taken in combination as well as sequentially, to help you take just enough medication, but NOT too much medication, as ALL pain medications have side effects. The following list of pain medications will help you understand how to use these medications properly.

- **Tylenol (Acetaminophen):** Tylenol is an over the counter pain medication that will help reduce pain. It is tolerated well by most patients and can be taken in combination with other pain medications. It may already be present in combination with some opioid medications, so check any other pain medication you are taking.

Dosage: You can take a 1000 mg tablet every eight hours for the first fourteen days after surgery. You should not exceed more than 3000mg per day, and you should limit alcoholic drinks while taking Tylenol.

- **Naprosyn (Naproxen, Aleve):** Naprosyn is available as a prescription or over-the-counter anti-inflammatory pain medication. It can be taken in addition to Tylenol. It helps reduce the pain and swelling in the surgical wound. It can upset your stomach, so if you develop nausea or diarrhea you should discontinue the medication.

Dosage: You can take two 220mg Aleve tablets or one 500mg prescription Naproxen tablet every twelve hours for the first seven to fourteen days after surgery. To reduce gastric side effects, it is helpful to take Naprosyn after eating. If you have a history of bleeding stomach ulcers or ulcerative colitis, you should not take Naprosyn.

OR

- **Celebrex:** Celebrex is a prescription anti-inflammatory pain medication that can be taken in addition to Tylenol. Celebrex, for many patients, is tolerated by your stomach better than Naproxen. If you know you have difficulty taking over-the-counter pain medications because they upset your stomach, Celebrex may work better for you. If you have a history of bleeding stomach ulcers or ulcerative colitis, you should not take Celebrex.

Dosage: You can take one 200mg Celebrex tablet every twelve hours for the first seven days after surgery.

- **Neurontin (Gabapentin):** Neurontin is a prescription pain medication that does not have the addictive risks of opioid medications. Neurontin can be taken with Tylenol and anti-inflammatory medications. The most common side effects of Neurontin are drowsiness or dizziness. Neurontin can be taken with Tylenol, Naprosyn or Celebrex.

Dosage: You can take 100 mg every eight hours for one week, and then reduce to 100 mg at night before sleeping for three additional weeks, if needed to help with night pain.



Opioid Pain Medications

Opioid pain medications are the most common pain medications given to control pain following surgery. ALL opioid medications have an addictive potential and often have annoying side effects. To minimize the risk of addiction as well as side effects, opioid pain medication should be taken carefully; use the least powerful opioid type medication, with the lowest dose needed to help relieve the pain, and for the shortest period of time needed for pain.

Following your surgery, different opioid medications may be used. Initially, the dosage may be stronger, higher and more frequent. As you heal, the pain will subside naturally and the opioid medication may be changed to a type that is not as strong, and a dosage that is lower and less frequent.

The Non-Medication Pain Strategies and Non-Opioid Pain Medications above often provide significant pain relief, so less opioid medication is required.

- **Codeine + Tylenol (Tylenol # 3):** Codeine is available as a prescription opioid pain medication. Among the opioid medications, Codeine is the mildest opioid medication. Codeine can be combined with anti-inflammatory medications and Neurontin. Codeine as a prescription, is combined with Tylenol (acetaminophen) as Tylenol # 3 - 300mg Tylenol (acetaminophen) + 30mg codeine.

Dosage: You can take one or two Acetaminophen/Tylenol # 3 tablets every four to six hours as needed to reduce your pain. If you are taking Tylenol in addition to Tylenol # 3, you MUST make sure that your total daily dose of Tylenol does not exceed 3000mg/day.

- **Tramadol (Ultram):** Tramadol is a prescription opioid (narcotic) pain medication that is stronger than Codeine. Of opioid pain medications, for most patients it has the least number and intensity of side effects. Tramadol can be taken with Tylenol, anti-inflammatory medications and Neurontin.

Dosage: You can take one to two 50 mg tablets every eight hours. During the first few days after surgery, you can add a stronger opioid medication if needed for breakthrough pain control if the Tramadol is not enough.

- **Lortab, Norco, Vicodin (Hydrocodone):** Hydrocodone is a prescription opioid medication with intermediate opioid strength. Hydrocodone can be taken with anti-inflammatory medications and Neurontin. Hydrocodone(5mg) is sold combined with acetaminophen (Tylenol, 325mg) under the brand names Lortab, Norco or Vicodin.

Dosage: You can take one to two Lortab, Norco, or Vicodin every four to six hours to reduce your pain. If you are taking Tylenol (acetaminophen) in addition to Lortab, Norco, or Vicodin, you MUST make sure that your total daily dose of Tylenol does not exceed 3000mg/day.

- **Oxy IR (Oxycodone):** Oxycodone is among the strongest opioid pain medications and should be used ONLY for severe breakthrough pain not controlled by other pain medications and weaker opioid medications. When taken with other opioid medications, Oxycodone may cause some temporary opioid side effects.

Dosage: For severe breakthrough pain you can take, one 5mg Oxycodone tablet every four hours as needed to reduce severe pain. If this is not sufficient and you do not have significant side effects, you may increase the dose to two 5mg tabs (10 mg total) every four hours for more severe uncontrollable pain. Do NOT take more than eight to ten pills in a 24 hour period. When you need only one 5mg tablet each day for breakthrough pain medication, stop taking the Oxycodone pain medication.

Goals of Pain Control

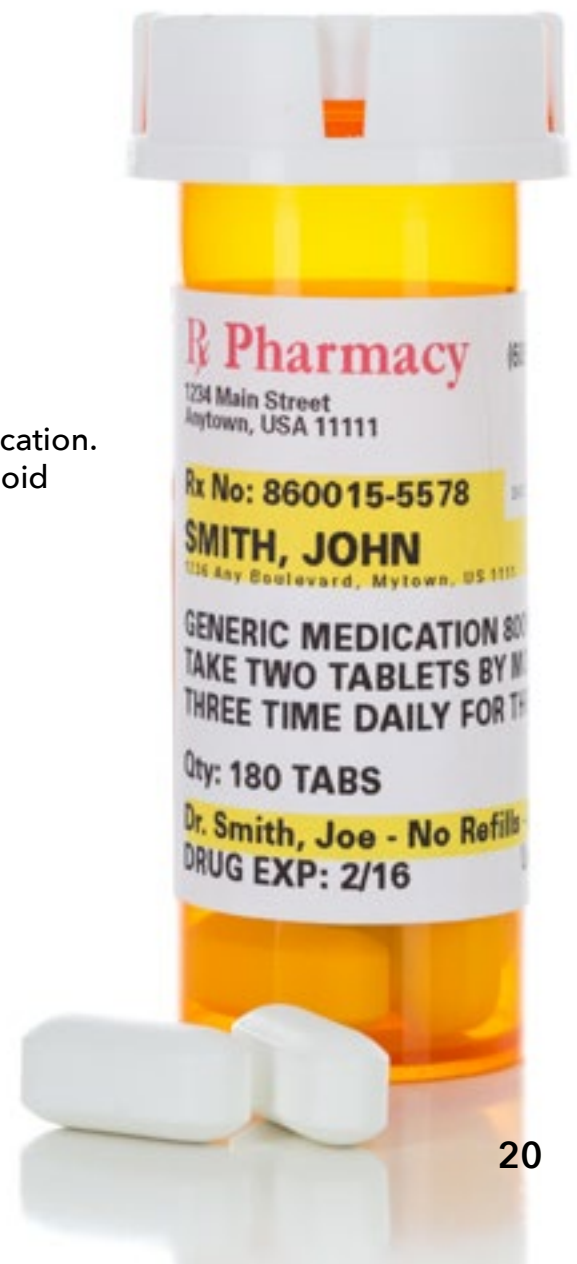
Our goal is for you to achieve a rapid recovery with pain that is 'tolerable' (level 3-4 out of 10) and managed with as few opioids (narcotics) as possible to permit a safe and full recovery. With the above strategies, some patients need only temporary and limited opioid (narcotic) use for pain relief. Oxycodone is a stronger short acting narcotic and should be used ONLY for breakthrough severe pain relief. Our goal is for you to get off ALL pain medications as soon as possible to reduce the chance of abuse and addiction, as well as the adverse side effects seen with ALL opioid medications.

Common Opioid Side Effects

With ALL opioid medication, side effects are frequent and tend to be dose related. Common opioid side effects include:

- Dry mouth
- Nausea
- Constipation
- Vomiting
- Sweating
- Drowsiness
- Headache
- Confusion
- Respiratory Depression
- Abuse and Addiction

If you have any of these side effects, reduce or stop the opioid medication. The side effects are often more annoying than the pain relief the opioid medications provide.



Gastro-Intestinal (GI) Medications:

Most joint replacement surgery patients have some gastro-intestinal distress and uncomfortable symptoms following surgery because of temporary changes in diet, side effects from pain medications and inactivity during recovery. To anticipate and minimize these annoying common symptoms, several medicines are recommended during recovery and can be stopped as your diet returns to normal, you are off anti-inflammatory and opioid medications, and you are back to more normal activities.

- **Omeprazole (Prilosec, Zegerid):** Omeprazole is an over-the-counter medication that blocks gastric acid production. This helps prevent heartburn that can be aggravated by an irregular diet, less activity, and pain medications that reduce gastric mobility following surgery.

Dosage: You should take one 10mg capsule every twelve hours for the first one to two weeks following surgery until you are eating normally, off most pain medication and back to light activities.

- **Docusate (Colace):** Colace is an over-the-counter stool softener and laxative used to prevent constipation side effects from the post-operative irregular diet, opioid pain medications and inactivity.

Dosage: You should take one to two 100mg tablet(s) or capsule(s) each evening for a week following surgery. You can add more as needed and directed on the label if you are experiencing more severe constipation despite the colace dose you are taking. Adding some fiber and roughage to your diet will also help.

- **Ondansetron (Zofran):** Zofran is a prescription anti-nausea medication used to reduce the side effects of opioid medications. If the opioid medications are needed for pain control but produce nausea, Zofran may help you reduce this adverse side effect. Zofran can cause some drowsiness. Dosage: You can take one 8 mg capsule of Zofran every six hours based upon the severity of your symptoms to reduce nausea associated with opioid medications. Zofran should not be needed for more than a week as you reduce opioid medications.

Post-Operative Dental Care -- Antibiotic Prophylaxis Infection Prevention

IBJI recommends the following guidelines for patients with orthopedic implants (such as total hip and knee replacements) to reduce the risks of infections that can be caused by dental procedures.

For 2 years after surgery you should take for infection prophylaxis:

- **Amoxicillin** 500mg - four caps (total 2000 mg) by mouth one hour prior to your dental procedure/visit

If you are allergic to Penicillin, then we recommend you take Clindamycin, 600mg by mouth one hour prior to a dental procedure/visit, for two years following surgery.

If you are a healthy patient, dental prophylaxis is unnecessary/optional after two years based upon your discussion with your surgeon and dentist.

If you have some conditions that weaken your health (i.e. immunocompromised from cancer treatments, diabetes, history of previous significant infections), dental prophylaxis will be recommended for life.

Frequently Asked Questions

Arriving Home

When should I change my surgical dressing following surgery?

Instructions will be given to you when you leave the surgicenter or hospital regarding your surgical dressing. A sealed flexible absorbent water resistant dressing is often placed on the wound before discharge from the surgicenter or hospital and will be left on for several days (often a week) until it loosens and is no longer impervious to water during showering. At that point, the dressing can be removed. After the dressing is removed, the wound should be kept clean and dry.

When can I shower following surgery?

For most patients, a sealed flexible absorbent water resistant dressing is placed on the wound before discharge from the surgicenter or hospital. This dressing permits a brief shower when you get home. The dressing can get moist; dry it with a towel after bathing. Avoid directly soaking the dressing during showering. Your surgeon will instruct you when the dressing can be removed. After the dressing is removed, showering can continue, again avoiding excessive soaking during showering and keeping the wound clean and dry between showers.

When can I tub bathe, hot tub or swim following surgery?

It takes your surgical wound several weeks to heal sufficiently before tub bathing and swimming (continuous soaking of the wound) can be done. Your wound should be completely healed with no drainage of any kind for more than a week before any soaking activities should be done. For most patients this takes about four weeks. You can ask your surgeon about these activities at the time of your post-operative visit.

Post-Operative Office Visits

When should I see my surgeon following surgery?

It is important to follow up with your surgeon after your joint replacement. For most patients, their joint replacement will last twenty years, and many last a lifetime. After your initial recovery, we recommend that you see your surgeon one year following your surgery. Most patients, thereafter, will return every three to five years for a post-operative office visit to make sure your replacement is continuing to function well. In some cases, wear or loosening of the implant can be detected on X-Rays before it causes symptoms. Your frequency of follow up visits will depend on many factors including your age, the demand levels placed on your replaced joint, and the type of joint replacement. Your physician will consider all these factors and tailor a follow-up schedule to meet your needs.



Activities After Joint Replacement

When can I resume driving following surgery?

To begin driving again after surgery, you must be off opioid medications (narcotics) completely. You must be able to get in and out of the car without help. You should be able to comfortably reach and depress the brake and accelerator pedals with the strength and reaction time needed to drive safely. Initially, drive locally on less busy streets. Most patients are able to resume driving four to six weeks following surgery, however this varies from patient to patient. This can be discussed at your post-operative surgical visit to determine what is safest and most appropriate for your situation.

When can I return to work?

While every patient's work situation is unique, below are some general guidelines. Restoring the energy, mobility, and comfort necessary to return to desk or office work usually takes about four to six weeks. Restoring the energy, mobility, comfort and strength necessary to return to physical labor (i.e., carpentry, yard maintenance, etc.) usually takes about two to three months. Talk with your surgeon about work at the time of your post-operative office visit. Sometimes, returning to work part time or with some limited activities is advisable as a part of your recovery.

What is the typical recovery after total joint replacement?

You will be able to resume light household and community activities within four to six weeks. Full recovery to resume all activities usually occurs in about two to three months. A full recovery usually takes six to twelve months following your surgery - so be patient and continue your exercises and rehab activities to achieve a full recovery.

What activities can I participate in after total joint replacement?

Once you are healed and recovered from your surgery, you are free to enjoy low impact activities including walking, hiking, swimming, cycling, treadmill, elliptical, golf, light tennis, and skiing. Higher impact activities such as basketball, volleyball, and long distance running are not advised. If you have any questions about specific activities, call your surgeon's office.

Travel After Joint Replacement

Will my implant set off metal detectors at airports and security lines?

Most patients with a joint replacement set off metal detectors. It is reasonable for you to inform the TSA or other screening agent that you have had a joint replacement. You will require screening and will need to follow the directions of the screening agent. There are millions of individuals with joint replacements. Screening protocols recognize that most people who have had joint replacements will set off metal detectors. You do NOT need to carry specific documentation to prove that you have a joint replacement.

Preventing Infection After Joint Replacement

Will I need to take antibiotics prior to seeing a dentist or having other invasive procedures?

The American Academy of Orthopedic Surgery (AAOS) and American Dental Association (ADA) recommend prophylactic antibiotics prior to dental procedures (one dose, one hour prior to dental procedure) for two years following surgery for joint replacement patients. After two years, continuing dental prophylaxis is based on a consensus among you, your treating surgeon and your dentist. Your surgeon will consider many factors, including whether or not you are at increased risk of infection due to immune suppression (i.e. diabetic, chemotherapy, regular use of steroid medications, etc.). (See Dental Care Antibiotic Prophylaxis Recommendation Section on page 21.)

Additional Trusted Educational Resources



You will find the following websites from national orthopedic organizations useful to learn more about what to expect before and after your joint replacement:

- AAOS Total Knee Replacement Patient Education
 - <https://orthoinfo.aaos.org/en/treatment/total-knee-replacement/>
- AAOS Total Hip Replacement Patient Education
 - <https://orthoinfo.aaos.org/en/treatment/total-hip-replacement/>
- AAHKS Total Knee Replacement Patient Education
 - <https://hipknee.aahks.org/total-knee-replacement/>
- AAHKS Total Hip Replacement Patient Education
 - <https://hipknee.aahks.org/total-hip-replacement/>

Notes:



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