

THE PATIENT'S
GUIDE TO KNEE
REPLACEMENT

MIDWEST
ORTHOPAEDICS
at RUSH



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HIP AND KNEE
REPLACEMENT AND
RECONSTRUCTION

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TABLE OF CONTENTS

PREOPERATIVE CHECKLIST: YOUR PART IN A SAFE SURGERY AND RAPID RECOVERY.....	1
MEDICATION AND PLAN BEFORE SURGERY: WHAT TO STOP AND START.....	2
PREPARING YOUR SKIN BEFORE YOUR SURIGCAL PROCEDURE.....	3
DENTAL CLEARANCE AND INVASIVE PROCEDURES AFTER JOINT REPLACEMENT.....	4
SURGERY TIME: WHEN WILL I FOUND OUT?.....	5
MORNING OF SURGERY: YOUR LAST MORNING WITH A PAINFUL JOINT.....	6
PHYSICAL THERAPY IN THE HOSPITAL.....	7
PATIENT POST-OPERATIVE INSTRUCTIONS.....	8
THERAPY/NURSING INSTRUCTIONS.....	9
PHYSICAL THERAPY AFTER DISCHARGE FROM THE HOSPITAL.....	10
SYMPTOMS AFTER SURGERY: IS THIS NORMAL?.....	11-12
EXCERSISE BEFORE SURGERY: BUILD YOUR STRENGTH TO RECOVER.....	13-14
RESEARCH PARTICIPATION.....	15
WHERE TO STAY IN CHICAGO.....	16
SURGERY QUICK GUIDE REFERENCE: TOP 10 THINGS TO KNOW.....	17

PREOPERATIVE CHECKLIST: YOUR PART IN A SAFE SURGERY AND RAPID RECOVERY

- Arrange for a family member or friend to accompany you to the hospital on the day of surgery
- Cancel any dental appointments 1 month PRIOR to surgery and 3 months AFTER surgery. If you have any loose or painful teeth, please notify us immediately
- Avoid any injections to your surgical joint 3 months PRIOR to surgery
- You will be discharged from the hospital as discussed at your office visit so please have transportation available or accommodations booked in accordance to your discharge date. We are happy to assist in these are there are special medical rates available to you in nearby hotels
- Arrange for a family member or friend to stay with you for a night or two after you return home from surgery
- Adjust your work and social schedule in accordance to your anticipated recovery time.
 - Active Work: Most people begin being able to return to active work (travelling, walking, manual work requiring you to be on your feet) at a minimum of six weeks after surgery and up to three months after surgery
 - Desk Work: If you have a job that does not require being on your feet, we recommend that you take a minimum of three weeks off. This is to ensure your incision heals and you have ample time to become comfortable with your physical therapy routine. Some people will require 6-12 weeks before they return to even a job that is not physically demanding.
- Ensure your home is “surgery safe”
 - Remove all small rugs or obstacles that may be in your path around your home.
 - If you have pets, ensure you have someone to assist in their care for the week after surgery
 - Buy several forms of hydration (water, Gatorade, juices) and protein snacks (protein bars, nuts, shakes) for your home before you present to surgery. You may not be able to go shopping for a few weeks after surgery and having these available, will aid in your recovery.
- Pre-Operative Exercises
 - See the instructions at the end of this pamphlet
- Driving
 - You will not be able to drive after surgery while on narcotic pain medications. This is typically for 3-6 weeks after surgery.
 - You will need to arrange for someone to bring you to your first post-operative appointment 3-4 weeks after surgery
- Tobacco Product Cessation
 - If you use Tobacco products on a regular basis, you are at a higher risk for complications during and after surgery. As discussed at your appointment, quitting, even just 6 weeks before and not smoking for 6 weeks after surgery, can have positive effects on your outcome

MEDICATION AND PLAN BEFORE SURGERY: WHAT TO STOP AND START FOR AN EXCELLENT OUTCOME

WHAT TO STOP

This is a general list and is not inclusive of all your home medications. Please consult your Primary Care Provider or the Provider that is completing your preoperative clearance for further details.

- 10 days before surgery
 - Aspirin
- 7 days before surgery
 - Plavix, Pradaxa, Eliquis
 - Coumadin
 - Any Herbal Supplements
 - Any anti-inflammatory medications except Celebrex
 - Examples: Advil, Ibuprofen, Aleve, Meloxicam
- You can CONTINUE the following medications
 - Tylenol
 - Celebrex
 - Ultracet, Ultram (Tramadol)
 - Glucosamine Chondroitin
 - Iron Supplements

WHAT TO START

- Hibiclens or Hibiclen Wipes showering 5 DAYS PRIOR to surgery (see next page)
- Mupirocin Nasal Ointment 5 DAYS PRIOR to surgery (see next page)
- The night before surgery
 - Nothing to eat after midnight
 - You are allowed water and/or Gatorade (except red or purple Gatorade), for up to 4 hours before your arrival time the day of surgery
 - Good night's sleep
 - OK to have ONE cocktail the night before surgery

PREPARING YOUR SKIN BEFORE YOUR SURIGCAL PROCEDURE

Below are the instructions Dr. Karas would like you to follow prior to your joint replacement:

Patients play a key role in preventing surgical site infections. Research shows that most surgical site infections are caused by the patient's own bacteria on his/her skin. You play an important part in reducing the chance of surgical infections by decreasing the amount, of bacteria that lies on your skin and in your nose prior to surgery.

1. During the week PRIOR to your surgical procedure, **please do not remove** any body hair on the operative body side. This is to avoid any open cuts around the surgical area.
2. **24 hours prior to surgery, do not apply lotion** or powders to the surgical site.
3. You will need to purchase a soap that contains **CHLORHEXIDINE GLUCONATE (CHG)**. **Hibiclens** is the most commonly available product and can be purchased over the counter at your local pharmacy. **Betasept** is another **CHG**-containing product.
4. Shower or bathe with the CHG soap daily for 5 days PRIOR to surgery, following these instructions:



- **CHG IS NOT TO BE USED ON** the head, face or genital area. Keep away from eyes, ears and mouth.
- Wash your hair and face with normal shampoo/conditioner and soap. Rinse completely.
- Pour a quarter-sized amount of liquid CHG soap onto a clean, wet washcloth and apply to your entire body from the neck down. You may apply additional soap to washcloth as needed.
- Rub the soap filled washcloth over your entire body for 3 minutes
- **STOP** using the CHG soap and call your doctor if you have a skin reaction such as sever redness, blistering, peeling or noticeable rash.
- The night before surgery, sleep in fresh, clean sheets and garments.
- The morning of surgery, wear fresh, clean clothes

You will be given a prescription PRIOR to surgery for **MUPIROCIN**. This is a nasal ointment to remove bacteria inside your nose. APPLY inside your nostrils (just at the tip) **once daily for 5 days prior to surgery**.

DENTAL CLEARANCE & INVASIVE PROCEDURES AFTER A JOINT REPLACEMENT

If you are experiencing any tooth pain or have not had a dental check-up within the past 6 months, you should have a dental check-up prior to your joint replacement surgery.

If you need to have dental work performed (i.e. - cleanings, fillings, root canals, extractions), please have this work completed at least 3 weeks prior to surgery. Do not plan on any elective dental work 3 months after surgery.

Once you have an artificial joint in place, your risk of contracting a blood borne infection is higher than normal. Thus, we are requiring antibiotics for all procedures after surgery; dental routine or elective surgery within 3 months post-operative.

You should take preventive antibiotics for all the following:

- Regular teeth cleanings or procedures when bleeding is anticipated
- Dental extractions
- Periodontal (gum disease) procedures
- Dental implant placement or reimplantation
- Endodontic (root canal) instrumentation or surgery
- Injection of local anesthetic into the gums

Recommended Antibiotics

- If you are not allergic to Penicillin: Amoxicillin 2g orally 1 hour prior to procedure
- If you are allergic to Penicillin: Clindamycin 600mg orally 1 hour prior to procedures

Other invasive procedures that require preventive antibiotics:

- Genitourinary procedures, Dermatologic procedures, gynecologic procedures, or any invasive procedure that may cause bleeding.

If you are unsure if your upcoming procedure requires antibiotic prophylaxis, please contact our office.

SURGERY TIME: WHEN WILL I FIND OUT?

- The hospital will call you after 3:00pm on the day before your surgery. You can call the OR scheduling office between 3:00pm and 6:00pm to find out your surgical time. If you do not receive a call by 4:00PM please call:
 - Rush University Medical Center - 312-942-6350 (after 6:30pm - 312-947-0500)
 - Rush Oak Park Hospital - 708-660-4808
 - Rush SurgiCenter - 312-563-2904
 - St. Alexius Hospital - 847-755-8330

MORNING OF SURGERY: YOUR LAST MORNING WITH A PAINFUL JOINT

- Take all medication as instructed by your primary care doctor and by our office
- You will need to come to either:
 - Rush University Medical Center
 - The RUSH Tower is located at: 1620 West Harrison Street, Chicago, IL 60612
 - Registration is on the 1st floor of the RUSH Tower. You can be dropped off at the base of the building, valet park, or park in the parking garage and take the walkway on the 4th floor from the garage to the hospital. Take your parking ticket with you, as it will be validated on the day of your surgery.
 - If you have any questions about parking at the Medical Center, please call the parking office at 312-942-6594
 - Rush Oak Park Hospital
 - 520 South Maple Ave., Oak Park, IL 60304
 - Free parking is available around the building
 - Rush SurgiCenter
 - 1725 West Harrison Street, Chicago, IL 60612
 - Located in the Professional Building
 - Use elevator 3 to go to the 5th floor; Suite 556
 - St. Alexius Medical Center
 - 1555 Barrington Rd, Hoffman Estates, IL 60169
 - Please register on the 1st floor, near the Starbucks
 - You do NOT need to wait in the main admissions line, please use the separate desk for AMITA Center for Joint Replacement
 - If you are using Google Maps: sear AMITA St. Alexius Medical Center, then click on the coffee or Starbucks icon to get the correct drop-off location.

Please bring the following with you to the hospital on the day of surgery:

- Photo ID, Insurance card
- Cane, Crutches or walker. If you do not have these items, they will be provided for you
- Appropriate dress
 - Loose fitting pants with an elastic waistband
 - Shoes with a non-skid sole you can easily put on and off keeping in mind swelling may be present.

PHYSICAL THERAPY IN THE HOSPITAL: YOUR FIRST STEPS TOWARD A SUCCESSFUL OUTCOME

You will be allowed to put all your weight through your new knee the day of surgery. Our team will ensure you get up and try when you get to your hospital room or recovery area.

- Either the day of surgery or the morning after, you will meet with a physical therapist and get on the road to recovery
- Your family and friends are invited and encouraged to participate in your therapy session with you
- You will leave the hospital on a cane or with a walker. At some point during your hospital stay, you will be asked to walk without an assistive device
- Patients with Osteoporosis or Soft Bone, may be asked to use crutches or a walker for a period of 6 weeks

IF PAIN NOT CONTROLLED (DO THE FOLLOWING STEP BY STEP)

- First, make sure you have been taking all your scheduled medications as prescribed
- Rest, Ice, and Elevate the surgical extremity about the level of the heart
- Take an extra Ultram (Tramadol). You may take up to 2 tablets or a total of 100mg of Ultram every 8 hours during times of acute pain
- Take an extra Oxycodone (OxyIR). You may take up to 2 tablets or a total of 10mg of Oxycodone every 4 hours during times of acute pain

PATIENT POST-OPERATIVE INSTRUCTIONS

- Take 10 deep breaths each hour
- Get up and walk at a minimum for 5 minutes every hour while awake. This prevents blood-clots.
- Use an assist device such as a walker only as needed unless instructed otherwise. It is important to talk and place full weight on your lower extremity to aid in recovery
- While sitting or lying down, elevate the lower extremity to the level of your heart at all times. This aids in the prevention of swelling and pain.
- Ice the knee for 45 minutes on and 2 hours off with the ice every day, all day.
- Please wear thigh high compression hose on both legs for 4 weeks. This prevents the lower extremity from swelling and pain. If you have difficulty sleeping in these, you may take them off at night but please wear while ambulating during the day.
- Sleep in whatever position is comfortable but our recommendation is on your back with a pillow under your ankle and calf. NOT UNDER KNEE. The knee should be as straight as possible during sleep.
- You may shower upon return to your home. Do not remove the mesh dressing, simply pat it dry after you shower. NO baths, pools, hot-tubs or standing water for 6 weeks.
- If your dressing becomes saturated, please remove it and apply a dry dressing directly onto the skin. You may put this between the compression hose and skin with no tape
- If your dressing should come off or be removed for any reason, please place a clean dry dressing over it. Not to worry, you have reinforced skin closure underneath. Please do the office should the incision drain fluid or blood.

THERAPY/NURSING INSTRUCTIONS (FOR YOUR THERAPIST)

- Dressing: Patients should be wearing thigh high ted hose. Underneath the ted hose, you will find an abdominal pad (abd pad) covering the incision. This is the outer dressing, please help and advise the patient to change the abd pad once daily. Underneath the abd pad there is a clear mesh dressing (Prineo) directly covering the incision. This mesh dressing should NOT be removed. Patients may shower with this mesh dressing and pat dry. After showering please cover the mesh dressing with abd pad and reapply ted hose. For patients with a purple wound vac (Prevena) covering their incision: This should be removed 7 days after surgery. Please help the patient remove this dressing. Underneath this dressing there will be black sutures. These sutures will be removed when the patient returns for their 3-week post-operative appointment. Once the wound vac is removed, please cover the incision with a dry gauze dressing that should be changed daily.
- Pain Management: Please ensure patient is taking adequate medications for pain management. Oxycodone prescribed is meant for breakthrough and to be taken 1 hour prior to and then after Physical Therapy or Home Health exercises.
- Some bruising and swelling is expected after surgery. Please instruct the patient on elevation of the lower extremity while seated or laying down to prevent this.
- Please help patient with compressive stockings, these should be worn as much as possible in the first three weeks post operatively.
- Please confirm the patient has an appointment with Dr. Karas' office approximately 21 days post-operatively. If no appointment is scheduled, please assist the patient in calling Alexandra at (312)-432-2598 to schedule an appointment.

PHYSICAL THERAPY AFTER DISCHARGE FROM THE HOSPITAL: DAILY EFFORT LEADS TO LIFETIME SUCCESS

An excellent surgery and patient experience for your short stay in the hospital is a springboard toward a successful recovery. From the moment you leave the hospital, it is up to you to work hard with physical therapy and on your own to achieve an excellent result!

- Your Physical Therapy will start within the home. Bryce Renicker PT, DPT with MOR will be your Physical Therapist or will be coordinating the appropriate clinician for you.
- A home physical therapist will come to your house for 1 or two weeks after surgery. After this, we recommend you begin outpatient physical therapy at the nearest MOR PT clinic for best continuity of care
- Functional Guidelines / Precautions for Physical Therapy
 - Weight bearing status: Weight bearing as Tolerated unless otherwise specified
 - Gait: Progression from the use of an assistive device to unassisted ambulation is encouraged immediately post-operatively. Progression is per physical therapist discretion with the primary goal of avoiding gait deviations.
- Specifics of Exercise:
 - It is very important to get your knee straight for proper walking and to regain full strength
 - Incorporate extension of surgical knee during sleep and sitting in conjunction with elevation
 - Increasing range of motion and healing is the initial goal of physical therapy. Patient should achieve 0 degree of extension and 110 degrees of flexion 3 week post-operatively
 - Bone healing can take 6-8 weeks. Respect the healing time and mitigate increases in swelling. Aggressive exercise that constantly increases swelling is not desired.
 - When the knee is no longer significantly swelling and painful, progressive strengthening of the quadriceps and hip muscles desired.
 - No pool therapy for 6 week post-operatively
- Icing
 - Icing and elevation after therapy or exercise will help control pain and swelling. Always use a barrier such as a towel between the ice and the skin to prevent skin burning.

SYMPTOMS AFTER SURGERY: IS THIS NORMAL?!

- **Redness/Swelling:** It is very common to experience swelling after surgery. Sometimes, you will not swell until several days after your surgery. Remember that your body is healing from the surgery and some swelling is normal. The more activities and physical therapy you perform, the more swelling you may experience. With that said, we do want you to remain active and participate in therapy. But, when sitting and resting, you can decrease the swelling by elevating your surgical leg and using ice. It is important to elevate your leg, with your knee above the level of your heart, 4-5 times a day for 15-30 minutes each time to help reduce your swelling. Your toes should be above your nose! You should call our office if you have swelling for several days that is accompanied by redness and heat or coolness in your surgical leg, or if the swelling does not resolve after elevating. A great way to combat swelling is to keep your compression hose on at all times as instructed.
- **Bruising:** Yes, you will have some degree of bruising after surgery, but everyone is different. Some will only experience this around the incision; others will have bruising down the entire leg. Both are considered normal and will resolve over 10-14 days.
- **What is my incision supposed to look like?** Joint replacement surgery requires an incision in the skin to perform the operation. This incision may look red, have some bloody drainage, and itch for the first weeks after surgery. You will have a dressing over the incision that will keep it sterile and dry but you may see up to ½ of this dressing stained with blood. If more than ½ of the dressing is stained, please call our office.
- **I'm having trouble sleeping:** Make sure that your pain is well controlled throughout the day. During the day, be careful about taking naps. Try to plan your activities as near normal as possible. If you still cannot sleep, try melatonin which is an over-the-counter natural sleep aid. You may sleep in any position you'd like to so get comfortable! If you continue to have issues, please call us to discuss.
- **Pain:** although we practice rapid recovery protocols and minimally invasive techniques, surgery can still be painful. If you are experiencing pain after surgery, please refer to the "if pain not controlled" section above. If that is not working for you do not hesitate to call our office.
- **Constipation:** Unfortunately, pain medicines may cause constipation post-operatively. It is best to continue drinking fluids to remedy these symptoms. Remember to take the Senna-S, two pills twice daily until you are having 1 bowel movement every 1 or 2 days. If you begin to have loose or watery stools discontinue this medication. If you continue to have constipation, you can take milk of magnesia or magnesium citrate orally. If this does not work, you may try a Dulcolax suppository or a Fleet's enema. All of these are over-the-counter medications that can be bought in the pharmacy.

- **I no longer need narcotic pain medicine, what can I take?** You should still be taking Diclofenac for at least 6 weeks after surgery which is an anti-inflammatory so you should not add Aleve or Advil to your regimen. You should take Tylenol or extra-strength Tylenol if your pain is not controlled.
- **Muscle soreness:** The muscles, not only immediately around the affected joint, but all the muscles of the affected thigh/leg may be sore after surgery. It is not uncommon to feel soreness for the first 6 weeks after your operation. Don't worry, this will improve with physical therapy and healing.
- **Throat irritation:** Should you require general anesthesia, your throat, tongue or lips may experience soreness after surgery.
- **Please call our office if you experience:**
 - Fever above 101.3F consistently
 - Increased drainage or swelling
 - Pain not controlled by pain medication
 - Inability to bear weight on your operative leg
 - Severe insomnia
 - Swelling in the foot or calf that is accompanied by coolness or decreased sensation in the foot
 - Confusion or disorientation

If you have any issues at all or would like to contact our office:

Alexandra Cuban - Administrative Assistant: (312) 432-2598 / Alexandra.Cuban@rushortho.com

Sheila Sanders - Registered Nurse: (312) 432- 2580 / Sheila.Sanders@rushortho.com

Isabelle Baneux - Physician Assistant: (312) 432-2419 / Isabelle.Banuex@rushortho.com

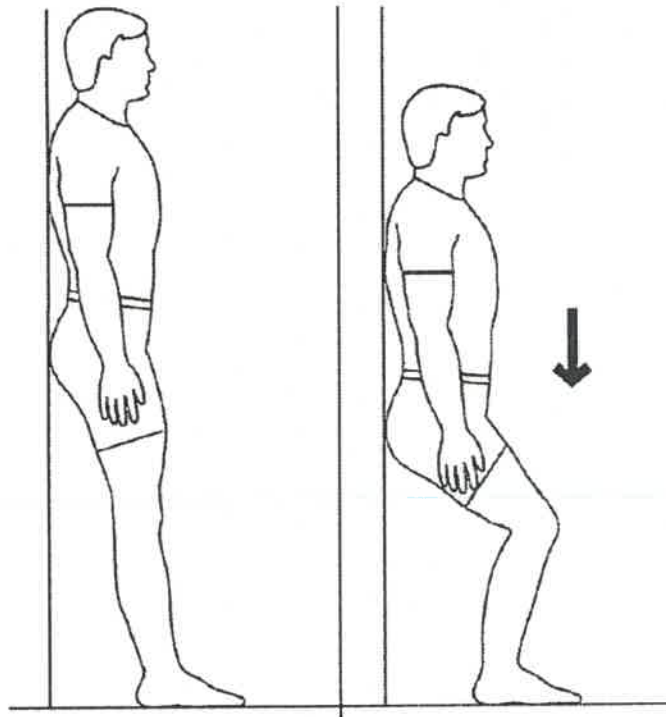
Bryce Renicker - Physical Therapist: (224) 297-5702 / Bryce.Renicker@rushortho.com

For Refills, please call Sheila Sanders (312) 432 -2580 or Isabelle Baneux (312) 432-2419 from 9am-4pm, Monday-Friday and we will help you obtain these. We will not prescribe Oxycodone more than 6 weeks after surgery and will no longer prescribe tramadol more than 3 months after surgery.

EXERCISE BEFORE SURGERY: BUILD YOUR STRENGTH TO RECOVER

- If you are currently exercising, please continue to do so!
- If you are not currently in an exercise program, please perform the below exercises daily
- You will work with your physical therapist to continue strengthening AFTER surgery

Mini Wall Squat



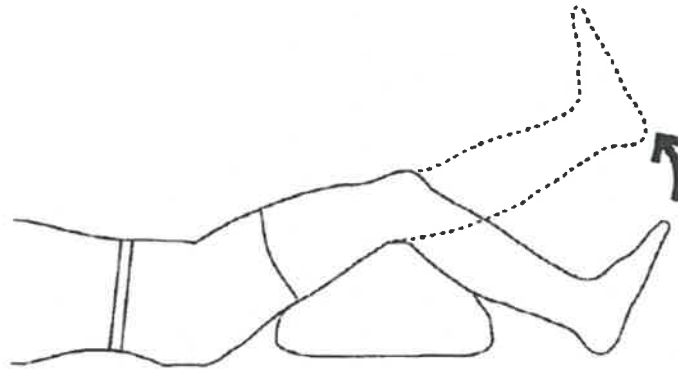
- Lean on wall, feet approximately 12 inches from wall, shoulder distance apart.
- Bend knees to 45 degrees.
- Hold 5 seconds.
- Return to starting position.

Perform 3 sets of 10 repetitions, once a day.

Rest 1 minute between sets.

Perform 1 repetition every 4 seconds.

Supine Knee Extension



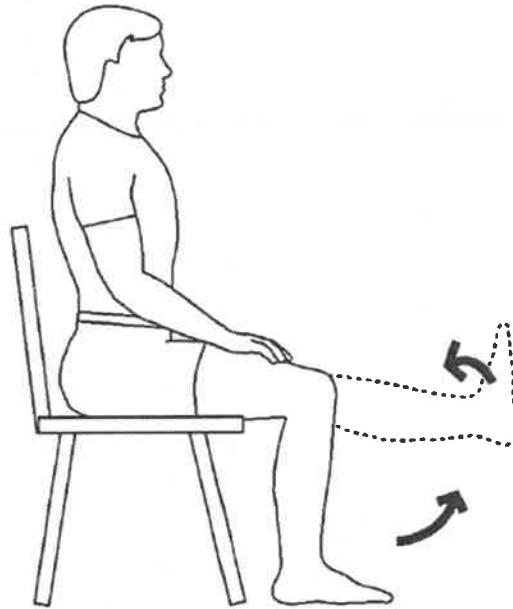
- Lie on back, with involved leg bend to 45 degrees, supported with a pillow, as shown.
- Straighten leg at knee.
- Return to start position.

Perform 3 sets of 10 repetitions, once a day.

Rest 1 minute between sets.

Perform 1 repetition every 4 seconds.

Seated Knee Extension



- Sit against a wall, chair, or on firm surface, knee bent.
- Keep a proper curve in low back, as shown.
- Flex left foot upward, while straightening knee.
- Repeat stretch with other leg.

Perform 1 set of 4 repetitions, once a day.
Hold exercise for 20 seconds.

Special Instructions:

Do not allow low back to lose the curve. It is common to experience shaking in the leg.

RESEARCH PARTICIPATION

MIDWEST
ORTHOPAEDICS
at RUSH

Dear Patient,

You are having your surgical procedure performed at Rush University Medical Center; as such, we feel it is important for you to know that surgeons in training including Resident Physicians (doctors who have completed medical school but are training to become an Orthopaedic Surgeon), Fellows (doctors who have already completed training in Orthopaedic Surgery but are obtaining additional training to specialize in hip and knee surgery), and medical students will be involved with your care. The involvement of these physicians and students will span the time between your admission to the hospital and your discharge to go home. Dr. Karas, however, is always involved with every step of your care and supervises these physicians and students at all times.

Teaching the next generation of Orthopaedic Surgeons and academic pursuits are core to our mission at Rush University Medical Center and it is an important part of what we do. It is part of what makes our care at Rush amongst the best in the nation and we hope that you understand that importance of this mission. We are confident that these trainees will only enhance the quality of your care and several scientific research studies support that trainees do not in any way change the risk complications and problems after surgery. You have chosen Rush as you felt it was amongst the best hospitals for Orthopaedic surgery in the country and physicians in training come here for the same reasons. In addition, you may be asked to participate in research. This research is closely regulated and helps in improvement of our specialty.

If you have any questions regarding the involvement of trainees or research in your care, please let us know. If you would prefer not to have trainees with your care, please ask about having your procedure done at our Ambulatory Surgery Center, or we can refer you to a well-trained colleague in private practice who does not work with trainees.

Regards,



Vasili Karas, MD,MS

WHERE TO STAY IN CHICAGO

Magnificat Mile/ Michigan Avenue Area:

Chicago Marriott

540 Michigan Avenue

Chicago, IL 60611

(312)-836-0100



Park Hyatt Chicago

800 Michigan Avenue

Chicago, IL 60611

(312)-335-1234



The Peninsula Chicago

108 E. Superior Street

Chicago, IL 60611

(312)337-2888



Chicago West Loop Area:

Crowne Plaza Chicago

25 S. Halsted Street

Chicago, IL 60611

(312)829-5000



Ace Hotel Chicago

311 N. Morgan Street

Chicago, IL 60611

(312)764-1919



Marriott at Medical District

625 S. Ashland Avenue

Chicago, IL 60611

(312)-491-1234



SURGERY GUIDE QUICK REFERENCE: TOP TEN THINGS TO KNOW ABOUT RAPID RECOVERY JOINT REPLACEMENT SURGERY

1. Joint replacement is hard work! To achieve the best possible outcome, you need to read this guide in its entirety, take medications as prescribed, and work hard with your physical therapist.
2. Pre-op: Stop taking all medications that thin your blood at least 1 week before surgery and nothing to eat or drink beginning midnight the night before your surgery
3. ELEVATE your lower extremity any time you are sitting or lying down for the first 2 weeks post-operatively. Above the level of the heart
4. ICE your lower extremity whenever you can. 45 minutes on and 2 hours off after surgery for 2 weeks
5. TAKE your oxycodone 1 hour before therapy or exercises
6. Your bandage stays on for 1 week and then can be removed. Another “Dermabond” or skin glue mesh is on underneath and should remain until you see Dr. Karas. You may shower at any time with either of these dressings.
7. Transition from a walker to a cane and from a cane to no assistance as soon as you feel comfortable.
8. Always keep your compression hose on for the first 3 weeks.
9. ELEVATE your lower extremity any time you are sitting or lying down for the first 2 weeks post-operatively. Above the level of the heart. Yes, this is a duplicate but it’s that important!
10. Call us if you have any issues at all. We want to know and are happy to assist. Alexandra Cuban: (312) 432-2598, Sheila Sanders, RN: (312)-432-2580, Isabelle Banuex, PA: (312)-432-2419, Bryce Renicker, PT: (224) 297-5702.

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