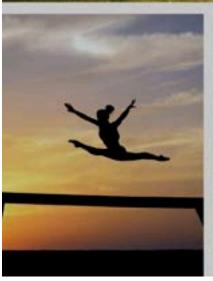




Combined Hip Arthroscopy & Periacetabular Osteotomy Patient Education

Hospital





Orthopedics & Spine Center

Overview

Hip dysplasia is one of the common causes of hip pain and arthritis in patients less than 50 years of age. Hip dysplasia results when the hip socket (acetabulum) does not fully develop, resulting in inadequate support of the ball part of the hip (femoral head). Due to this misalignment, over time the cartilage and labrum (a soft tissue rim made of fibrous cartilage, which lines the hip socket) can end up bearing the brunt of forces that should normally be distributed throughout the hip. Left untreated, hip dysplasia can result in early wear and tear of the protective labrum and cartilage.

The diagnosis of hip dysplasia can be challenging, and requires careful evaluation of the patient's symptoms, physical exam, X-rays and advanced imaging like MRI. Imaging may reveal version deformities in the acetabulum, in which the acetabulum tilts too far forward (anteversion) or too far backward (retroversion). It can also show bony abnormalities of the femoral neck that may increase the likelihood of labral tearing. MRI aids in the diagnosis of injuries to labral tissue.

The goal of combined Hip Preservation surgery is to address labral injuries of the hip joint and their root cause, hip dysplasia, with the ultimate aim of preventing future injuries and unnecessary wear and tear of the hip joint. Hip preservation surgery begins with a hip arthroscopy. A surgeon who specializes in hip arthroscopy uses a camera to view the hip joint from the inside, identify labral tears, and performs the repair of the torn labral tissue. If there are bony prominences that can be removed to help reduce stress on the labrum, they are addressed during this portion of the procedure. Once the arthroscopy is complete, a surgeon that specializes in hip dysplasia will correct alignment of the hip joint. This is done using X-ray guidance, cutting the pelvis around the hip socket and reorienting its position to better support the ball part of the hip. This portion of the procedure is called a periacetabular osteotomy, or PAO. Bone is held in place with multiple screws until it heals. During the healing process, new bone forms across the cut surfaces to further secure the repositioned acetabulum in the pelvis.

Patients who undergo a PAO are typically hospitalized for a few days as they recover from the procedure.



Surgery Checklist

Please find below a checklist for you to fill out and keep your surgical information organized!

\checkmark	Subject	Notes
	Surgery Location	OrthoColorado Hospital 11650 W 2nd Place Lakewood, CO 80228 720-321-5200
	Surgery Date	You will receive this information from the Panorama Team
	Surgery Time	You will receive this information from OrthoColorado Hospital, within a couple of days of your surgery.
	Preadmission Testing	Once your surgery is scheduled at OrthoColorado Hospital, OrthoColorado Hospital will reach out to schedule your Preadmission Testing appointment with your dedicated nurse navigator.
	Medical Clearance (two weeks - 30 days prior to surgery)*	You will receive this information from the Panorama Team
	Hip Brace Fitting (date, time location)*	You will receive this information from the Panorama Team Note: Please bring your brace with you to OrthoColorado Hospital day of surgery
	CPM Machine Delivery (date, time)*	For issues with delivery or use of the machine, reach out to: Saundra Sorenson 800-845-6364 saundra_sorenson@kinexmedical.com Note: Please bring your CPM with you to OrthoColorado Hospital day of surgery
	Crutches/walker purchases/rented	You are responsible for purchasing or renting crutches and/or a walker prior to your surgery.
	Post surgery physical therapy appointments scheduled	Call your PT office of choice and be sure to schedule your post op appointments prior to your surgery. Note- You will need a PT prescription from your care team
	Review videos and educational material prior to surgery	The Panorama team will be reaching out via email with additional resources and videos.
	Three scheduled Post Surgery Follow-up Appointments: 10-14 days, 6 weeks, 3 months	You will receive this information from the Panorama Team

*Kaiser Patients - Please check in with your Kaiser care team



Before Your Surgery

Pre Surgery Physical Therapy

By starting with strong hip musculature, the post-operative recovery process can be smoother and quicker. Improved muscle strength can help prevent complications like instability and improper weight bearing after surgery. Your surgical team will provide additional information on pre surgery physical therapy.

Click on link, copy and paste the url into a web browser or use the QR Code to access a Panorama Orthopedic and Spine Center YouTube video, "Exercises to Strength and Get You Ready for Hip Arthroscopy."



Exercises to Strengthen and Get You Ready for Hip Surgery

Prior to surgery discontinue medications:

- One week prior to surgery discontinue the following medications:
 - NSAIDs, vitamins, minerals and supplements, semaglutide or tirzepatide (Ozempic/Mounjaro/Wegovy)
- Cancel any dental appointments 6 weeks prior to AND post surgery.
- Discontinue oral contraceptive/birth control pills (OCP) 4 weeks prior to surgery as this will increase your risk of blood clots. If you have an implantable form of birth control (IUD or Nexplanon) you do not need to have this removed. You may resume OCP 2 weeks after your surgery.
- If you are diabetic and take metformin, consult with your endocrinologist about when to discontinue and resume this medication.
- Notify the surgical team if you have a bleeding or clotting disorder, or if you have previously been diagnosed with a blood clot. If you have a hematologist that monitors these disorders, notify them of your upcoming surgery.

Surgery preparation

- Your surgery is an inpatient procedure and you will stay in the hospital for a few days following surgery.
- What to bring to surgery: Insurance card, Photo ID, a list of your regular medications and doses, toiletries, comfortable clothing (such as sweatpants), crutches, hip brace, CPM Machine and an extra bag to be used after surgery for equipment and postoperative information.
- Please follow any pre admission instructions provided by OrthoColorado.



Prescription Medications

Blood Clot prevention

Most patients require the use of blood thinners after surgery to prevent the
formation of blood clots. Please ensure you take the entire course of
medication prescribed. We will also provide you with a proton pump inhibitor
to protect your stomach lining while taking blood thinners and
anti-inflammatories.

Pain Medication

- You will be prescribed a combination of tylenol, anti-inflammatories, muscle relaxers and opioid pain medication to minimize your post-operative pain.
- These will be prescribed and refilled on an as needed basis.
- Do not drink alcohol, drive, or operate heavy machinery while taking opioid medications.
- At Panorama, the surgeon team who will perform your PAO will monitor pain control and provide medications as needed postoperatively.
- Please call the Panorama office at 303-233-1223 Monday-Friday 8am-3pm for any refills. Please allow 24 hours for refills. We will not refill pain medications after 5pm on Friday or on weekends. We only provide short term (2 months) postoperative pain management.

Stool Softener and Anti-nausea

- You will be prescribed a stool softener to treat constipation postoperatively.
 Constipation is a common side effect from opioid pain medication. Please drink plenty of liquids, increase your soluble fiber intake to help prevent constipation.
- You will be prescribed an antiemetic medication called ondansetron. This can be taken as needed for nausea.



During your Hospital Stay

Activity Expectations during Acute Hospital Stay

To ensure your success with Physical Therapy (PT) and Occupational Therapy (OT) sessions, the therapists will check in with your nurse (RN) to plan and to make certain your pain is at a level that supports participation. You will not be pain free, but our goal is to get you to a level that allows you to perform PT and OT. Typically, after therapy sessions your pain may subside as moving is healing. Any activity that requires you to be out of bed, requires staff supervision. Do not attempt any out of bed activities alone or with family.

Day of Surgery

- Gentle exercises in bed because moving decreases pain and increases comfort
- Begin CPM machine
- Sit on edge of bed and progress as tolerated to stand and take steps
- We may begin walking you to the bathroom or pivoting to a bedside commode on this day depending on your level of sensation

Post-op day (POD) #1

- PT and OT will provide sessions during the day
- PT focuses on mobility in and out of chairs/bed, walking, stairs, and exercise. You will be using a walker to get around and may progress to crutches
- OT focuses on dressing, toileting, and bathing safely and more easily; on occasion we will teach you about equipment that makes these tasks easier
- Daily therapy sessions will include patient and family teaching and training to prepare you for home, to teach you precautions, and to educate you on home exercises and CPM use
- Gentle exercises in bed
- Sit on edge of bed again
- Stand at edge of bed; each session we will have you walk more distance with goal of out of room
- We will be walking you to the bathroom on this day
- Up in chair 2 to 3 times a day
- Continued use of CPM
- If you are moving well we will begin walking in halls and you may even be cleared to go home if moving safely with precautions and pain is controlled



POD #2

- Continue patient/family training, CPM use, performing gentle exercises, and out of bed for meals
- You will walk in the hallway, complete exercises, practice stairs, and learn car transfers if you haven't already
- You will practice dressing, stand at the sink to wash your face and brush your
- Possible discharge home today if medically cleared and when safe with mobility.

POD #3

- Anticipate discharge home this afternoon if not already home.
- Continue patient/family training, CPM use, exercise program, and out of bed for meals
- You will walk in the hallway, complete exercises, practice stairs, and practice car transfers
- Shower transfer training and shower per patient
- When medically cleared and determined to be safe with mobility, you will discharge home.
- Therapy will assist in obtaining equipment for home

Postoperative Pain Management

Pain control following surgery is a priority for both you and your healthcare team. You are going to have pain. The goal for postoperative pain management is to reduce, not eliminate pain and discomfort. We want you to have enough pain control that you can participate in activities such as: breathing effectively, going to the bathroom and participating in therapies. For pain control, we use a multimodal approach including not only narcotics, but also muscle relaxers, tylenol, ice, and movement.

Pain needs to be managed carefully. Your healthcare team will use different resources such as medication, ice and movement to lessen your pain with the intent to reduce opioid side effects such as nausea, vomiting, itching, constipation and drowsiness. These side effects are generally mild and can be treated in most cases.

Be sure to tell your healthcare team if you are allergic to or cannot tolerate any medications. Tell us about all prescription and over-the-counter medications plus any supplements or herbs you take. Accurately, describe your use of alcohol, tobacco, legal and illegal drugs including marijuana. We don't judge! Your healthcare team needs to know about anything that might interact with or reduce the effectiveness of post-surgical pain medications.



Each person experiences pain differently, some more severely than others. You may be surprised where you feel pain after surgery. The site of surgery is often not the only area of discomfort. You may or may not feel the following: Muscle pain: You may feel muscle pain in the neck, shoulders or back from lying on the operating table or Movement pain: Sitting up, walking, and light activity are all important activities after surgery, but they will cause increased pain.

After surgery, you will be assessed frequently by staff to ensure that you are reasonably comfortable and completely safe. Pain medications will not be scheduled, rather available to your healthcare team to administer safely per the physician's orders. When necessary and approved by your provider, adjustments or changes to your pain management regimen may be made.

Important! If you are having pain, please tell someone! Don't worry about being a "bother." Getting ahead of the pain means not waiting until your pain is severe before you take your medication. If you wait until your pain is severe, it will be more difficult to control, especially after waiting for the medication to be absorbed by your body and take effect.

After Your Hospital Stay

General Activity

- It is beneficial to change positions often after hip surgery. Alternate sitting, reclining, and laying down about every 30-60 minutes. Feel free to move around at home as much as you can tolerate. We do not want the hip to get stiff.
- Spend 1-2 hours/day on your stomach without the brace on.

You will be permitted to drive once you are no longer taking narcotics and off of crutches/walker

Weight Bearing

- You will be PWB (partial weight bearing) flat foot (20 pounds) for 6 weeks.
- You will use crutches or a walker throughout this time period while walking.
- Please walk with your foot flat and mimic normal gait.
- New x-rays will be taken post-operatively at 2 weeks, 6 weeks, 3months, and 6 months. The doctors will determine progress toward full weight bearing status at this appointment.



Sitting Instructions

After hip surgery, when sitting, you should: use a firm chair with armrests, keep your knees slightly lower than your hips, avoid crossing your legs, don't lean forward, and sit with your feet flat on the floor; essentially, prioritize keeping your hip in a neutral position to promote proper healing.

Click on the link, copy and paste the url into a web browser or use the QR Code to access a Panorama Orthopedic and Spine Center YouTube video, "How to Sit Down After Hip Surgery."



How to Sit Down After **Hip Surgery**

Crutches

Crutches can help you improve your balance and safety after hip surgery, and you will need to use them for 6 weeks.

Click on the link, copy and paste the url into a web browser or use the QR Code to access a Panorama Orthopedic and Spine Center YouTube video, "How to Sit Use Crutches After Surgery."



How to Use Crutches After Hip Surgery

Wound Care

- You will have a waterproof dressing on your hip which should remain in place for 7 days post op (it will be removed on the same day your Ambit pump is discontinued). We will provide you additional waterproof dressings (tegaderm) to place on the incisions after 7 days.
- It is normal to see a lot of blood-tinged soaked fluid on the bandages. This may appear to be a pinkish-yellow fluid and is normal.
- We recommend that you wait 7 days to shower so that your Ambit pain pump does not get dislodged or wet. However if you must shower before post op day 7 please keep the pain pump dry outside of the shower. Your dressing will be



- waterproof but please do not soak in water (take a bath, swim in a hot tub or pool) for at least 4 weeks after surgery.
- If you have a compressive wrap you may remove it to shower, then put it back on afterwards for compression.
- Should the incisions accidentally get wet, pat them dry with a clean towel and replace with a new bandage. Do not scrub.
- Do not apply lotions or ointments to the incision sites for at least 4 weeks.
- Do not allow pets to sit in your lap or sleep in your bed for 4 weeks post surgery.

Pain Pump

To relieve pain after surgery, you will have a small disposable pump filled with a local anesthetic medication. It continuously delivers the medication, which blocks the pain in the area of your procedure. The pain pump works with other medications or therapies your doctor may prescribe to manage your pain. With it, you may need less narcotics and have better pain relief than with narcotics alone.

- Near the surgical incision, you will have a catheter that is attached to a pain pump
- This pump delivers non-narcotic medication automatically to the surgical site
- After 7 days you can remove the catheter along with your dressings
- The pump is NOT disposable and must be returned
- Instructions for removal of catheter and returning the pump will be reviewed and provided before you are discharged
- For any questions: call the 24/7 Nursing support hotline 1-800-444-2728

Continuous Passive Motion (CPM) Machine

A CPM machine is a piece of equipment that a person may use to help with recovery after undergoing joint surgery. The idea behind CPM machines is that they increase range of motion. They provide sessions of continuous motion for joints that a person is unable to move freely. People may experience pain when trying to move their joint after undergoing surgery. This can cause them to avoid moving the joint, which can result in stiffness, a loss of motion, and the development of scar tissue.

- Prior to your surgery, The CPM company will reach out to you to deliver the CPM machine. Most likely I week to a couple days before your surgery.
- They will deliver the machine to your house (or location of choice), adjust the machine to you, and instruct you how to use it.
- Bring the CPM to the hospital on the day of your surgery. If you are traveling from out of state, the CPM can be delivered to OrthoColorado Hospital.
- You will begin using the CPM while you are at the hospital.
- Use this for a total of 4-6 hours/day for a total of 6 weeks.



• Begin at a rate of 1 cycle/minute, ranging from 20° of extension and 55° of flexion. Increase by 7-8° daily as tolerated. **DO NOT GO PAST 0-90°**

Click on the link, copy and paste the url into a web browser or use the QR Code to access a Panorama Orthopedic and Spine Center YouTube video, "How to Use the CPM After Hip Surgery."



How to Use the CPM (Continuous Passive Motion Machine) after Hip Surgery

Hip Brace

- You will be contacted 1-2 weeks prior to your surgery to schedule a hip brace fitting
- The hip brace is worn only while ambulating, on the outside of your clothing, for 6 weeks after surgery (same duration as crutches)
- You do NOT need to wear the brace when: sleeping, icing, showering, going to the bathroom, laying on your stomach, using the CPM machine, using the upright bike
- The purpose of the brace is to prevent hyperflexion (bending too far forward at the hip or bringing the leg too far toward your chest) and abduction (bringing the leg out to the side from your midline).

Click on the link, copy and paste the url into a web browser or use the QR Code to access a Panorama Orthopedic and Spine Center YouTube video, "How to Use Your Hip Brace After Hip Arthroscopy."



How to Use Your Hip Brace
After Hip Arthroscopy

Ice Therapy

- An ice machine can be purchased or rented from Panorama.
- For the first 72 hours, ice as much as you can Ideally ice 20 minutes on, 20 minutes off.
- After 72 hours ice 4-5 times per day, then as needed after 2 weeks
- Place the ice onto the hip over a thin layer of clothing or material, but never directly onto the skin.





Possible Postoperative Complications and Risks

- **Infection:** The risk of infection is decreased with a sterile operating environment and antibiotics. Starting three days before your surgery, be sure to keep the skin of your hip as clean as possible using soap and water. Following surgery, careful handling of the incision sites reduces the risk of infection.
- **DVT:** Developing a DVT (deep vein thrombosis, aka blood clot) is decreased through instituting early motion (CPM) and medications (Aspirin). Following the pre-operative and post-operative instructions will reduce the risk of blood clot formation.
- **Pain:** With any surgical procedure, there is a potential complication of pain. Medication, ice, rest, compression, elevation and therapy reduce post-operative pain.
- **Numbness**: There is a chance of numbness of the upper outer portion of the thigh on the operative leg after surgery. This is due to stretching of the lateral femoral cutaneous nerve, a sensory nerve that is close to the surgical area. This nerve may be stretched or bruised during the procedure. This is very common and the numbness should resolve over time.

When You Should Contact the Office

- If you have a fever >100.4 degrees F.
- A low grade temperature (even up to 100 degrees) is expected after surgery, but let us know if it gets this high!
- If you develop chills or sweats.
- If you have pus, significant pain, or redness surrounding the incision sites.
- If you are unable to urinate >1-2 days after surgery



PatientIQ helps Panorama Orthopedics and Spine stay in touch with you to know how you're feeling and to make sure we provide you with the best care possible.



Why Did Panorama Orthopedics and Spine Partner with PatientIQ?

We care about you and your health – even when you're not at our office. PatientIQ helps Panorama Orthopedics and Spine stay in touch with you to follow your health, to understand how our care is helping you, and to get your feedback on what we can do better.

How Does It Work?

PatientIQ will contact you through email and/or text message to:

- Ask you questions about your health
- Ask you questions about how your visit went
- Send you educational videos or care instructions

While the emails or text messages come from PatientIQ, the questions being asked are from your healthcare team. It is very important to answer the questions so they can provide you with the best care possible.

How Long Will It Take To Answer Questions?

Just a few minutes! We know you are busy, so we make sure to ask only the most important questions.

How Often Will I Be Contacted?

Because our health is always changing, it's important to stay connected and make sure everything is going well. PatientIQ will reach out to you as your healthcare team suggests and at key times throughout your recovery. make sure you're only contacted when necessary.

How Will My Answers Kept Private?

Your responses are kept completely secure and will only be seen by your doctor and healthcare team.





Panorama Reference Information

Dr. Patel

Fax: (720) 497-6772 drpatelpc@panoramaortho.com Phone: (720) 497- 6698

Department	Reasons to call	Contact Information
Prescription Refills (8am-3pm M-F) *Excluding Holidays	Refills for prescriptions Change in prescriptions	720- 497- 6698
Appointment Scheduling (7am-5pm M-F) *Excluding Holidays	Schedule follow up appointments and office visits Answers questions regarding patient appts	720- 497- 6698
Disability/FMLA Paperwork	Questions and concerns regarding disability, FMLA, return to work paperwork	Fax forms to the corresponding doctor's fax number (see above) Email or drop off paperwork in person at any office. Please allow 5-7 business days for completion.
Pre-Authorizations (9am-4:30pm M-F) *Excluding Holidays	Insurance authorization questions and concerns	303-233-1223
Panorama Physical Therapy	Schedule physical therapy appointments	303-274-7330
Panorama Billing and Customer Service Office	Questions on Insurance or Billing	720-497-6637

VERSAROM HIP BRACE



- Waist Band
- 2. Leg Strap
- **Belt Compression** Straps

Reminders / User Tips

- Your brace has been pre-locked for you, you do not have to change any range of motion settings for your recovery. *Specific duration in your brace depends on your procedure, between 3-6 weeks*
- Putting on your brace: While sitting, first wrap your waist band (1) making sure the leg panel is directly down the side of your leg, then attach your leg strap (2), and lastly pull your belt compression straps (3)
- **Taking off your brace:** You will loosen 3, detach 2, and release 1.
- How tight should it be? Your brace should be snug enough it won't shift out of position while walking around.
- When to wear your brace: General rule: If you have to use your crutches, you should have your brace on. Brace is **not** required when you sleep, shower or while you are sitting around your home.
- Bathroom Tip: Just remove strap 2. If you place this strap to the inside of strap 2, the rest sits above waistline, and you should still be able to use the restroom without fully removing the brace.
- Practicing Before Surgery: Please practice taking your brace on and off before surgery, we recommend a "practice run" of going from your vehicle to your recovery spot, to the bathroom and back. If you have crutches already, we recommend a true practice run with your crutches, especially if you have stairs. Always remember to go up the stairs leading with your "good leg" and down the stairs leading with your crutches and "bad leg." Your crutches and surgical leg should always move together, touching your surgical leg to the ground for balance.
- **Don't forget** to bring your brace to the hospital/surgery center.

