



Panorama Hip Preservation Center
Combined Hip Arthroscopy and Ganz Osteotomy
Pre-Operative Information Packet

Michael Ellman, MD Ronald Hugate, MD



Dear Patient,

Thank you for choosing The Hip Preservation Team at Panorama Orthopedics to address your medical needs. We are honored to be able to help you throughout your journey. It is important to know that you will have a great deal of support & guidance throughout this process. Your team of specialists includes Dr. Ellman and Dr. Hugate, Justin Burtz, Molly Bryan and Barbara Wright (Physician Assistants), Samantha Gutierrez and Maggie Foos (medical and office assistants), the Panorama Orthopedics staff, and your Physical Therapists. As an approved candidate for hip arthroscopy and Ganz osteotomy, Drs. Ellman and Hugate have confidence in your potential for success. Together, we will set realistic goals to get you to your desirable level of function. It is the mission of this team to work together with you to help you reach your goals.

You are the most crucial member of the team and your active participation is invaluable to the ultimate success of your surgery. Without your commitment to reach your goals and you providing feedback along the way, other team members cannot operate as effectively in their roles. We all rely on you to provide input on what you feel is working, what may not be beneficial, and how you are best motivated.

From our experience, you can expect a challenging yet rewarding road ahead. While no two patients are the same, all experience highs and lows along the way. We encourage you to build friendships with fellow patients, but caution you in comparing yourself or your progress with other patients. You have a unique medical history, injury, surgical procedure, body type, and goals, and your road to recovery will differ from others. The ultimate goal for everyone is to return to their pre-injury level and to stay there, not just how quickly you get there. This requires a progressive return that allows for complete healing of the bone and repaired tissues, and a re-balancing of all muscles involved.

We look forward to working with you and encourage you to play an active role in the process.

Sincerely,

Panorama Hip Preservation Center

Contact Information for the Hip Preservation Team

Clinical Liaison/Surgery Schedulers: Samantha Gutierrez (Dr. Ellman)

Maggie Foos (Dr. Hugate)

Phone: 303-233-1223 Ext: 6605 (Sam) and Ext: 6635 (Maggie)

Fax: 720-497-6730 (Sam) and 720-497-6711 (Maggie)

Email: drellmanpc@panoramaortho.com and drhugatepc@panoramaortho.com

Department	Reasons to call	Contact Information
Care Navigation (Triage Dept) (7am-5pm M-F) *Excluding Holidays	<ul style="list-style-type: none"> Medical questions or concerns that require immediate attention 	Call: 303-233-1223 Extension 1100
Prescription Line (8am-3pm M-F) *Excluding Holidays	<ul style="list-style-type: none"> Refills for prescriptions Change in prescriptions 	Call: 720-497-6662 (Requests after 3pm are handled the next business day)
Appointment Scheduling (7am-5pm M-F) *Excluding Holidays	<ul style="list-style-type: none"> Schedule follow up appointments and office visits Answers questions regarding patient appts 	Call: 303-233-1223 Option 2, then option 1
Disability/FMLA Paperwork	<ul style="list-style-type: none"> Questions and concerns regarding disability, FMLA, return to work paperwork 	Fax or email forms to both Maggie and Sam, 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	<ul style="list-style-type: none"> Insurance authorization questions and concerns regarding surgery, injections and imaging ordered by physician (MRI, CT, ultrasounds, EMG's) 	Call: 303-233-1223 Extension 1011



Panorama Physical Therapy	<ul style="list-style-type: none"> • Schedule physical therapy appointments • Questions or concerns for your Therapist 	Centralized Scheduling Office 303-274-7330
Billing and Customer Service Office	<ul style="list-style-type: none"> • Questions on Insurance or Billing 	720-497-6637
Littleton Hospital	<ul style="list-style-type: none"> • General Questions • Check-in and Surgery Times 	303-730-8900 (main hospital line)
CPM Questions	<ul style="list-style-type: none"> • Questions about CPM, problems with CPM 	1-800-845-6364
Hip Brace Questions	<ul style="list-style-type: none"> • Questions about use of hip brace / settings 	DME staff P: 303-233-1223 x1600
Pre-Admission Testing	<ul style="list-style-type: none"> • Schedule covid test • Pre-op clearance 	303-738-2750



Important Surgery Instructions

Preoperative Instructions

SURGERY SCHEDULING

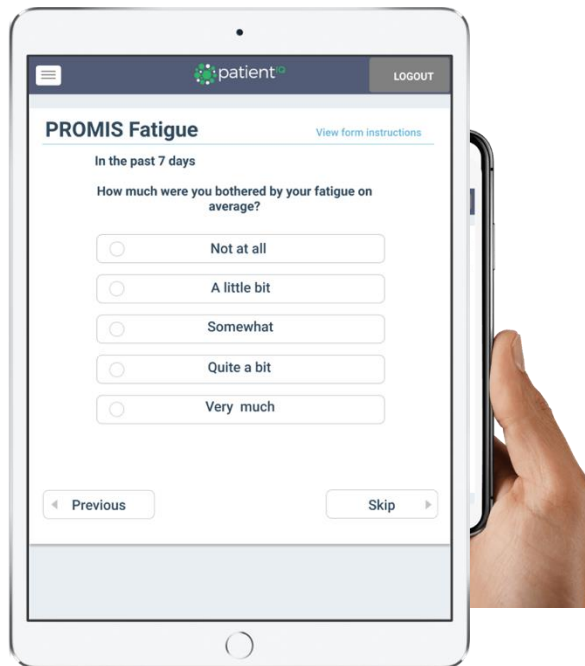
Thank you for choosing to schedule surgery with Drs. Ellman and Hugate. We are excited to be involved in your surgical experience. In preparation for your surgery, we would like to inform you of all the necessary steps to be completed prior to your procedure.

- Once you decide to proceed with surgery, you will need to contact BOTH Samantha Gutierrez and Maggie Foos to set up a surgical date. We then submit the surgery order to your insurance for approval. Please note, our surgeons' schedules book up rapidly and we typically book out 2-3 months. We will do our best to accommodate your needs and time requests.
- If you do not hear from our schedulers within 1-2 weeks of scheduling your surgery, please contact BOTH Samantha and Maggie. Call 303-233-1223; ext 6605 and 303-233-1223; ext 6635 or email drellmanpc@panoramaortho.com and drhugatepc@panoramaortho.com
- Once you schedule a surgical date, you will receive a call from a hospital administrator approximately 2 days prior to your surgery to inform you of the specific time of your surgery, including check-in time and hospital directions and information.
- We operate at Littleton Adventist Hospital. Please make note of the below address:
 - **Littleton Adventist Hospital**
 - 7700 S. Broadway
Littleton, CO 80122

Preoperative Checklist

- **Pre-Operative Health Clearance**
 - **ALL PATIENTS MUST BE MEDICALLY CLEARED FOR SURGERY **WITHIN 30 DAYS** OF THEIR SCHEDULED PROCEDURE.** PLEASE CONTACT PRE-ADMISSION TESTING TO SCHEDULE YOUR PRE-OP APPOINTMENT. THEY CAN BE REACHED AT (303)738-2750.
 - **Note: If you do not live in the Denver-Metro area, you will need to get clearance by your primary care physician. This clearance must be completed within 30 days of your scheduled procedure.**
- Cancel any dental appointments within 6 weeks of your surgery.
- Notify our team if you are having any medical procedures done within 6 weeks of your surgery.
- Avoid any cortisone injection into the affected hip within 6 weeks of your surgery.
- **Discontinue birth control 1 month prior to your surgery.**
- Adjust work/social schedule accordingly during your anticipated recovery time.
- Practice the exercises listed at the end of this packet as these will help with your strength after surgery.
- If you smoke, you should attempt to stop smoking. If you cannot stop smoking permanently, if you can abstain for 24 hours before surgery, this is of benefit. It is essential to not smoke for at least 48 hours after surgery to aid in the healing process.
- Please take the time to complete all surveys that will be emailed to you. We appreciate any and all feedback to better our practice, as well as the field of hip preservation. Please see important PatientIQ information on the next page.

AN IMPORTANT MESSAGE FROM DRS. ELLMAN AND HUGATE:



Your Participation Makes a Difference! ***Please Sign Up and Respond to Patient IQ. Why???***

1. Optimization of Our Clinical Outcomes

We take great pride in tracking and studying patient outcomes. Our goal is to provide you with the best experience possible throughout your journey, but we need YOUR help! By filling out PatientIQ surveys before and after your hip surgery, YOU will help us to become better surgeons.

2. Research to Improve the Future of Hip Preservation

With your help of providing data following our surgeries, we will publish literature that will help define the best, most up-to-date practices in the world of hip preservation.

PatientIQ is a free service that is offered to every surgical patient in our busy hip preservation practice. After signing up for surgery, you will receive an email to sign up for PatientIQ. Please create a username and password to activate your account. PatientIQ helps Drs. Ellman and Hugate collect patient outcomes before and after each procedure, so please take the time to fill these out, even if it's 1-2 years after your surgery!

1 WEEK PRIOR TO SURGERY:

- Notify our team if there has been a change in your medical condition (cold, infection, fever, etc.) prior to surgery. It may be necessary to reschedule your surgery.
- Arrange for a family member or friend to accompany you to the hospital on the day of surgery.
- Please discontinue NSAID medications such as ibuprofen, and Aleve **TWO WEEKS** prior to surgery. Discontinue all over-the-counter herbal medications or dietary supplements **TWO WEEKS** prior to surgery. Discontinue all blood-thinners (Aspirin, Plavix, Coumadin, etc) **ONE WEEK** prior to surgery. You may continue taking Celebrex, Tylenol, tramadol (Ultram), and pain killers (ie. Vicodin/Norco) up until the day before surgery. We have a list of medications to discontinue prior to surgery if there are any questions.
- You should receive a call **within 2-3 days** of your surgery to get set up with your **hip brace and CPM machine**. If you do not receive a phone call, please contact the numbers available on the contact sheet in this packet.

DAY BEFORE SURGERY/DAY OF SURGERY:

- Stay well hydrated the day before surgery. Drink plenty of fluids including water, Gatorade and juice. Avoid alcohol.
- If you have a cold, fever, or upper respiratory infection before your surgery, please call the office and inform our team.
- ***STOP EATING SOLID FOOD 8 HOURS PRIOR TO YOUR SURGICAL TIME, AND STOP DRINKING ANY FLUIDS 4 HOURS PRIOR. YOU WILL GET CONFIRMATION OF THESE TIMES FROM THE HOSPITAL. PLEASE MAKE NOTE OF THESE TIMES. IF YOU EAT OUR DRINK ANYTHING OUTSIDE OF THESE TIMELINES, YOUR SURGERY WILL BE CANCELLED***
- You may take your regular medications such as high blood pressure medicines, thyroid medicines, seizure medications, and any cardiovascular medications the morning of surgery with a small sip of water.
- What to bring to surgery: **Insurance card, Photo ID, a list of your regular medications and doses**, comfortable clothing such as sweatpants, **crutches, hip brace, CPM machine**, and an extra bag to be used after surgery for equipment and postoperative information.
- Arrive at the hospital front desk as instructed. Plan to arrive at the hospital 2 hours before your scheduled surgical time.
- This procedure is an **INPATIENT** surgery; please anticipate discharging from the hospital **2-3 days after surgery**.



AFTER SURGERY

We require a CPM machine and a hip brace to be used after surgery, and you will be contacted prior to surgery to set these up. Please make sure you are educated on how to use the brace and CPM machine. Also, we recommend an ice machine to help control swelling, help with pain control, and speed healing. The ice machine is not covered by insurance but we feel is helpful in healing following your procedure. It is your choice if you would like to purchase the ice machine. We will be happy to set you up with an ice machine at any of our office locations.

POSTOPERATIVE APPOINTMENTS

We will schedule your first postoperative visit for you when we schedule your surgery. You will be seen between 1-2 weeks after surgery, and then again at approximately 6 weeks and 12 weeks postoperatively. Please call the scheduling desk at 303-233-1223 to schedule your post-operative appointments or if you have any questions.

PLEASE NOTE:

There are several unlisted hip procedures (CPT code 29999/27299) that are deemed medically necessary per Dr. Ellman's expertise to achieve optimal outcomes following surgery. Unfortunately, these services are still considered "investigational or unproven" by insurance companies and are not reimbursed. Please read Dr. Ellman's non-covered service waiver form for further details. You may contact our billing department for any questions regarding this fee.



Hip Arthroscopy Non-Covered Service Waiver

Patient Name _____ DOB: _____
 Responsible Party (if minor) _____

Non-Covered Service Waiver

Standard Flat Fee: There are several unlisted hip procedures (CPT code 29999/27299) that are deemed medically necessary per Dr. Ellman’s expertise to achieve optimal outcomes following surgery. The following procedures have been demonstrated in the literature to result in improved clinical outcomes following hip arthroscopy:

- Capsular Repair
- Capsular Imbrication or Plication
- AIIIS or Subspine Decompression

At least one of these procedures is performed in every case by Dr. Ellman. Unfortunately, these services are still considered “investigational or unproven” by insurance companies and are not reimbursed. Therefore, Panorama will collect a flat fee of \$1000 *before* your hip arthroscopy procedure. This fee is required to continue the surgical process with Dr. Ellman.

I understand that I am responsible for the standard flat fee payment of \$1000 prior to my hip arthroscopy procedure.

Signature of Responsible Party

Date

Labral Reconstruction: In some cases, Dr. Ellman may perform a **labral reconstruction or labral augmentation** procedure. A labral reconstruction may be performed in revision settings if a labral repair or debridement has previously failed, or in rare primary settings when the labrum is too severely damaged to repair. During this procedure, a graft is used to reconstruct a new labrum from cadaver tissue. Labral reconstruction procedures are considered “investigational” by some insurance companies, despite studies demonstrating excellent success rates. If Dr. Ellman performs a labral reconstruction in your hip, you may be charged an additional \$1,500 *after* surgery to cover costs associated with the procedure. We will always attempt to charge your insurance company first, but if they elect not to pay, you may be responsible for payment following surgery.

I understand that, in the event of a labral reconstruction procedure, I may be charged an additional \$1,500 following surgery to cover costs associated with the procedure.



Signature of Responsible Party

Date

Surgery Descriptions

- **Labral Repair:** The labrum is reattached to the acetabulum with suture anchors and stitches are tied to hold it in place and allow for healing.
- **Labral Reconstruction:** This procedure is performed when the labrum is small, of poor quality, or not repairable. A piece of allograft (cadaver) or autograft is used to replace the damaged labrum. It is held in place with suture anchors along the acetabular rim.
- **Femoroplasty:** An osteoplasty is performed at the head- neck junction of the femur. During this procedure, a motorized burr is used to shave down the bony abnormality and re-create a “normal” shape of the femoral neck.
- **Acetabuloplasty:** A rim trimming procedure is used to address the bony abnormality of the acetabulum (socket) of the hip using a motorized burr.
- **Subspine Decompression:** The subspinous region is the area directly above the rim of the socket. If this region is protruding or larger than normal, it can cause another area of impingement and pain. A burr is used to shave down this area to a normal contour to alleviate pain and impingement.
- **Microfracture:** A microfracture technique is performed to address a cartilage lesion on the acetabulum or on the femoral head. A pic (awl) is used to poke holes in the bone where cartilage is missing, with the goal of allowing bone marrow cells to fill the “pothole” with a blood clot, which will then mature into new cartilage. The clot is delicate and requires minimal weight-bearing and good mobility for proper healing.
- **Chondroplasty:** Minimal cartilage damage is repaired using a motorized burr tool to shave off any frayed or loose edges.
- **Capsular Closure:** In every hip arthroscopy, the capsule must be opened at the beginning of the case to allow for instruments to pass into the joint. At the end of the case, a capsular closure is when the surgeon repairs or closes the capsule to restore normal anatomy of the hip joint.
- **Capsular Plication:** A plication is done in some cases to tighten a loose capsule. During a capsular plication, the capsular tissue is overlapped and closed with sutures to hold the tissues together, adding stability to the joint.
- **Synovectomy:** A synovectomy is performed in patients who exhibit significant inflammation of the lining of the joint. During this procedure a heat probe is used to remove the irritated tissue.
- **Osteotomy:** Surgical cutting of bone. Dr. Hugate will make several cuts into the pelvic bone to realign the acetabulum.



Post-Operative Instructions

Medications

- **Multi-Vitamin that includes iron:** 1 tablet by mouth twice daily (morning and evening)
- **Pain Medications:** will be prescribed and refilled on an as needed basis. Do not drink alcohol, drive, or operate heavy machinery while using pain medications. Pain medications can cause constipation. You should take the stool softener of your choice (over the counter) while on the pain medication. Please call our office Monday through Friday, 8:00am to 3:00pm as needed for refills. Please allow 24 hours for medication refills. We will not refill pain meds requested after 3:00pm or on weekends!! We only provide short term (2 months) postoperative pain management.
- **DO NOT TAKE anti-inflammatories:** These medications (common types include: Advil, Aleve, Orudis, Motrin, Ibuprofen, Naproxen, Naprosyn) can slow bone healing and are therefore not recommended for use in some patients. Tylenol (Acetaminophen) is not an anti-inflammatory and therefore is an acceptable alternative.
- Resume your usual home medications unless otherwise directed.

Wound Care and Showering

- Leave the surgical bandage on and do not shower for 48 HOURS.
- You may take a brief shower after 48hrs. Your dressing is waterproof.
- You may remove your dressing 7 days after your surgery. If there is a no drainage, you may leave the wound open to air. If you are having any skin irritation from the dressing, please contact our office.
- If the wounds get wet while showering, this is OK; however, we prefer to keep the wounds dry during the first 7 days after surgery.
- If you have steri-strips (white tape, similar to white band-aids), do not remove them, these will peel off on their own over time.
- A small amount of drainage is normal. If this occurs, place another clean/dry gauze dressing on the wound and change daily until the drainage stops. If you have Ace Wrap or Ted Hose, you may remove to shower, then put back on afterwards for compression.
- In between showers, leave open to air with steri-strips in place.
- Do not apply lotions or ointments to the incisions.
- Your stitches are absorbable under the skin – you will not need stitches removed after surgery.
- Do not soak incisions in any pool/bath water until 3 weeks postoperatively or until your incisions are completely closed.



- Do not allow pets to sit on your lap or sleep in your bed for at least 4 weeks following surgery. Pets may harbor fleas, mites or other organisms that may cause an infection.

Physical Therapy

- Physical therapy should begin when you get home from the hospital.
- Choose a PT clinic close to your home so that you are compliant with your program, and schedule your first appointment about a week after your surgery (be sure to call and schedule physical therapy PRIOR to your surgery).
- For your first visit, please bring your prescription for physical therapy, provided at your preoperative clinic visit. You and your therapist can access the physical therapy protocol at on our website at www.panoramaortho.com → Services & Treatments → Hip Preservation → Therapy & Rehab Protocols (Bottom of Page) → Ganz Protocol.
- At your first physical therapy visit, your therapist should instruct you on proper weight bearing and teach your family members how to perform passive, light circumduction of the hip.

Weight Bearing

- **You will be PWB (partial weight bearing) flat foot (20 pounds) for a total of 6 weeks. Use crutches throughout this time period while walking.**
- Please walk with your foot flat and mimic normal gait.
- Once you are 6 weeks out from surgery, you may begin to progress your weight bearing slowly as directed by your therapist.
- Getting off the crutches takes each patient a different amount of time.
- Don't try to rush yourself to get off the crutches.

Brace

- You will be fitted for your brace either before your surgical day or on your surgical day. You will receive a phone call from the brace company a couple days prior to your surgery to schedule a fitting. Please try to get fitted for the brace prior to your surgery.
- The hip brace should be worn for the first 6 weeks following surgery, or until you are off crutches (typically 6-8 weeks). Always use crutches while wearing the brace and walk with flat foot weight bearing (20 pounds).
- **Brace Settings:**
 - 0 degrees extension – 90 degrees flexion
 - Neutral rotation
 - 10 degrees abduction
- The brace is worn only when ambulating (walking), and is worn on the

outside of your clothing. You do NOT need to wear the brace while you are sleeping, on the CPM machine, laying on your stomach, using the upright bike, or icing your hip.

- The purpose of the brace is to prevent hyperflexion and abduction (bringing the leg too close to the chest or bringing the leg too far away from the body).
- The first few days, concentrate on icing the hip and wear the brace when you are up and moving around.
- You can remove the brace for showering and using the bathroom.
- The outside post on the brace should be positioned over the outside of the leg.

Ice

- If using the ice machine, the machine will automatically stay on to provide continuous low temperatures and limit inflammation postoperatively
 - Use it as much as you like or can tolerate for the first 72 hours.
 - After the first 72 hours, try to use it 4-5 times per day for the first two weeks after surgery.
 - Use it as you wish after 2 weeks.
 - Information about picking up an ice machine is in this hip packet.
 - Do not wear the brace over the ice machine pad.
- If using simple ice packs, ice the hip as much as you can for the first 72 hours – 20 minutes on, 20 minutes off.
 - Ice your hip 4-5 times per day after the first 72 hours.
 - Place the ice onto the hip over a thin layer of clothing or material, but never directly onto the skin.
 - Use as you wish after 2 weeks.

Continuous Passive Motion (CPM) Machine

- The use of CPM has been shown to promote early healing following surgery and decrease the risk of scar tissue or adhesions post-operatively.
- Start on the day/evening of surgery if you have time and feel up to it. However, it is also acceptable to start using the CPM machine the first day after surgery.
- Use this for a total of between 4 and 6 hours per day for a total of 6 weeks.
- You can split up into increments if you get sore/tired. You will need assistance to get into the CPM for the first few of days after surgery.
- **Settings:** Start with the settings at 20 degrees extension and 55 degrees of flexion
 - Increase by 7-8 degrees per day as tolerated. **DO NOT GO PAST 0-90 DEGREES.**
 - Example: Day 1, 20 of ext and 55 of flexion. Day 2: 12 degrees of extension and 63 degrees of flexion, etc.



- Use for a total of 6 weeks.
- To help in the prevention of lower back pain, try and maintain proper spine alignment while in the CPM; you may roll a towel or use a small pillow behind your lower back.
- If the CPM machine is uncomfortable for you, you can substitute time on the CPM with use of a stationary bike (see below).

Biking

- Gentle, no resistance, upright, stationary biking can begin as soon as the day after your surgery, although we recommend you do this with your physical therapist for the first time.
- Do NOT use a recumbent bike! NO Nustep!
- Use non-operative leg to push the operative leg around gently.
- 20 mins on upright bike = 1 hour on motion (CPM) machine.
- You do not have to go out and buy a bike; rather, just use the bike while at PT.

Ted Hose

- You will be given a pair of ted hose (stockings) to wear after surgery. These help in the prevention of blood clots postoperatively.
- Please wear these at all times for the first 2 weeks following your surgery.

General Activity Levels

- It is beneficial to change positions often after hip surgery. Alternate sitting, reclining, and lying down approximately every 30 minutes. Feel free to move around at home as much as you can tolerate, as we do not want the hip to get stiff.
- Spend 1-2 hours per day on your stomach (you can take the brace off for this).
- You may drive again in when fully weight-bearing without any assistive devices, and off all narcotic medications. Do not drive while on pain medications. When you resume driving, it is recommended that you start in an empty parking lot and test your physical ability to react quickly. If you are able to comfortably maintain control of your vehicle and rapidly apply the brakes if needed, then it is safe to drive. You should not drive until you can bear weight fully on both lower extremities, or otherwise directed by your surgeons.

Follow-Up

- A follow up visit will be scheduled with a member of Dr. Hugate and Dr. Ellman's team 10-14 days after your surgery.
- Please call centralized scheduling at 303-233-1223 if you don't have an appointment.



- Routine post-operative follow up appointments will be made 2 weeks, 6 weeks, and 3 months following surgery.
- We prefer to schedule these appointments on Thursdays in our Highlands Ranch office since Drs. Ellman and Hugate are both there.

When should you Contact the Office

- You have a fever > 101.4 (a low grade temp is expected after surgery, but let us know if it gets this high!)
- You develop chills or sweats
- You have pus or increasing redness and warmth surrounding the incision sites
- You develop calf swelling or calf pain after surgery
- You experience any chest pain or difficulty of breathing

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), mechanical means (TED hose) 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:** You may experience some 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 typical and the numbness should resolve over time.
- **Heterotopic Ossification:** Any time we operate around the hip joint, there is a small chance of heterotopic ossification, which is abnormal bone growth in the surrounding muscles.
- **Malunion/Nonunion:** During the osteotomy, parts of your pelvis are cut and reoriented. There is a risk of failure of bone to bone healing (nonunion), or bone shifting during the healing process (malunion). While rare, if this were to occur, it may require further surgery to correct the problem.

****Dr. Ellman was one of the first surgeons in the United States to begin utilizing post-free distraction during hip arthroscopy. The advantages of this technique eliminate any nerve injury to the groin, including the pudendal nerve and surrounding soft tissues.****



Blood Thinner Education Sheet

Blood clots can either develop in your legs (**DVT** or deep vein clot) or, on rare occasion, a clot may travel into your lungs (**PE** or pulmonary emboli). Both DVT and PE can be dangerous or even life threatening. Prolonged bed rest, obesity, smoking, estrogen, birth control pills, genetic conditions, surgery, certain types of cancer, and sitting still for long periods of time, are all risk factors for blood clot formation. To prevent blood clots after surgery, your doctor will prescribe a blood thinner. The type of medication prescribed, and how long you will need to take that medication depends on many factors. Please make note of which blood thinner your doctor has prescribed for you and read the information pertaining to that medication thoroughly.

What are the signs and symptoms of blood clots?

- Increased swelling in the leg
- Increased pain or tenderness in the leg (especially the calf area)
- Redness or discolored skin on the leg
- Unexplained shortness of breath
- Pain with deep breathing
- Coughing up blood

How are blood clots prevented?

The sooner you can get up and move around after surgery, the better. Walking helps prevent blood clots by increasing your circulation. If you are unable to walk, then moving your leg around while in bed or performing ankle pumps frequently (10-15 times per hour while awake) can help as well. We recommend that you wear the compression stockings (TED Hose) that you received in the hospital for 6 weeks on the operative leg following hip or knee replacement surgery. We also recommend that you use a TED hose on the opposite leg for two weeks after surgery as blood clots can occur on the non-operative leg as well. The TED compression hose help to keep the swelling down and the blood flowing to prevent clots.

What medications are used to prevent blood clots?

Medications that thin the blood are used to prevent blood clots. The most common blood thinners we use are Aspirin, Xarelto, Eliquis, and Lovenox. Of course, being blood thinners, these medications may cause you to bleed more easily. Call our office (303-233-1223) if you are taking these medications and notice excessive bleeding from the wound, bleeding from the gums, significant bruising, or black/bloody stools. These could all be signs that your blood is too thin.



Some specific precautions while taking any blood thinners:

If possible, use an electric shaver instead of a razor blade

Use a soft toothbrush

Do not engage in contact sports or activities.

Use a stool softener to avoid extreme constipation.

Cold Therapy Unit



The DonJoy® IceMan Classic3™ delivers continuous cold therapy to help patients and medical practitioners easily manage post-operative pain and swelling, speeding patient recovery and rehabilitation. It provides extended cold therapy for a variety of indications and protocols as directed by medical professionals.

Please consult our icing instructions for frequency and length of use

Cost – \$185 + tax (not covered by insurance)

Panorama Orthopedics & Spine Center offers the ability to purchase this unit directly from the Medical Supply Shop located inside the Panorama Golden location at:

**660 Golden Rd., Suite 250
Golden, CO 80401**

No appointment or reservation is needed if picking up in Golden office. Visit us Monday – Friday between the hours of 8am & 5pm. These units are also available for purchase at the front desk of both of our Westminster offices, as well as our Highlands Ranch, Castle Rock, and Summit offices **during clinic hours**. If staff members are working with other patients at the time of your arrival, please anticipate the possibility of a short wait for assistance in purchasing a cold therapy unit at **any** of our offices. Detailed information and instructions will be given at time of pickup.

Hip Dysplasia

Normal



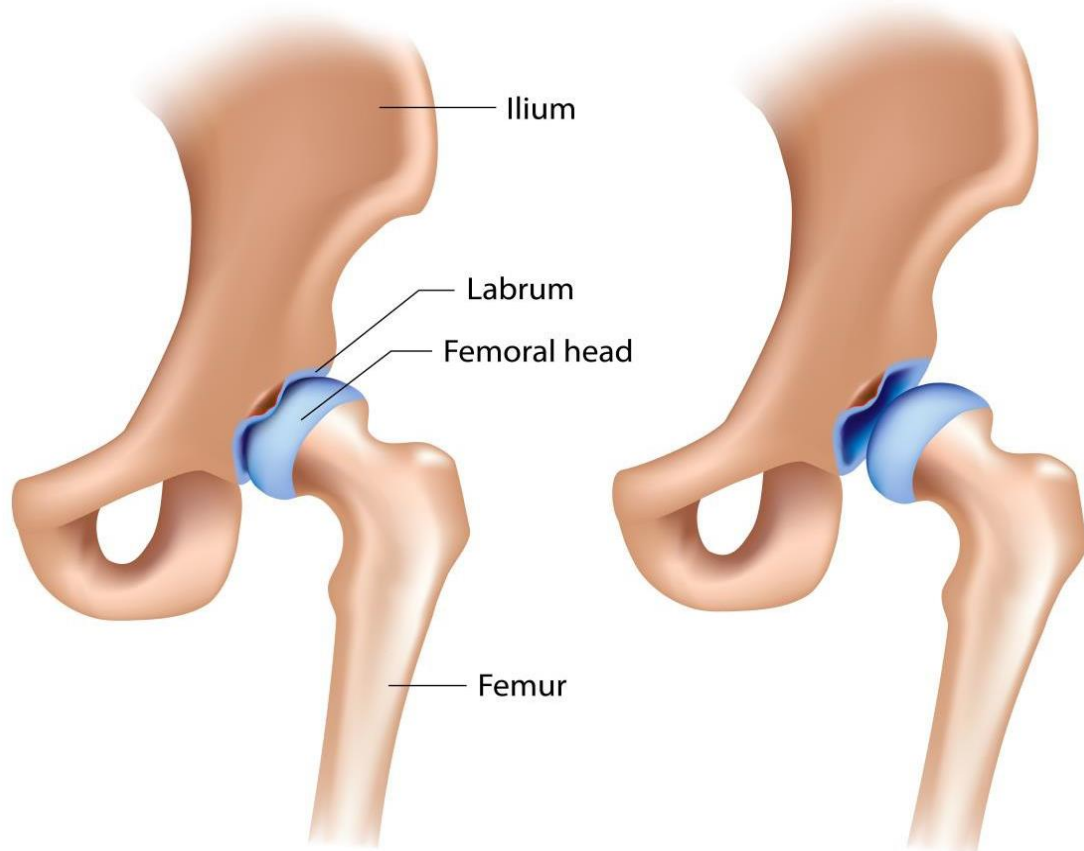
Dysplastic



clohisyhipsurgeon.com

- Hip dysplasia is a complex issue when you acetabulum (socket) does not form completely as an infant.
- A normal acetabulum forms directly over the femoral head (ball), but patients with dysplasia have a socket that is too shallow or too steeply angled to support the ball effectively.
- This can cause pain and premature arthritis over time, and even hip dislocation.
- The lack of adequate bony coverage puts the acetabular labrum (a ring of soft tissue made of fibrocartilage) at risk for injury and tearing.
- Women are more likely to be affected than males, by almost 4 times.
- Dr. Hugate has an informative PowerPoint video that gives details about his portion of the surgery to correct a dysplastic hip. Please take the time to watch this series of 7 short, yet thorough, videos. You can find the YouTube slideshow at:
<https://www.youtube.com/watch?v=z8233h3v10o>

Hip Labral Tear



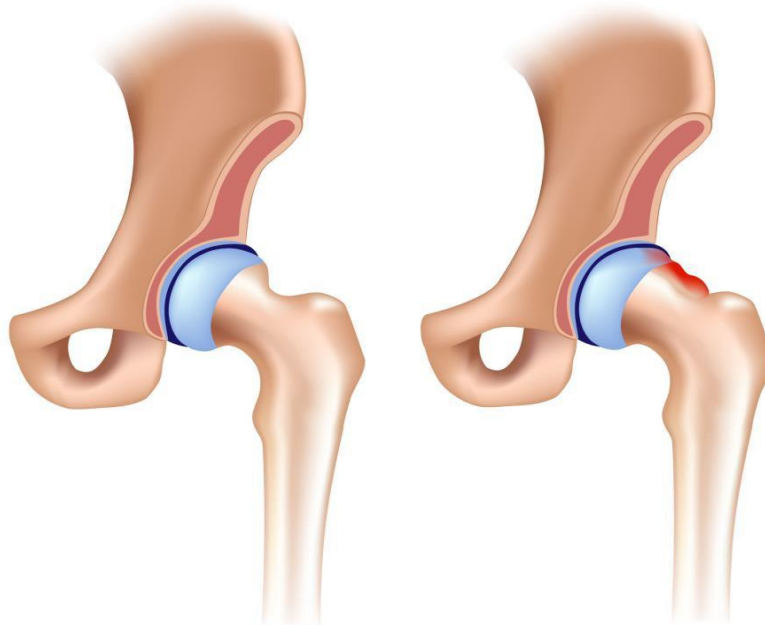
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- The labrum, because of its function in distributing weight-bearing forces, is susceptible to injury from forces that occur with twisting, pivoting, and repetitive impact.
- Labral tears may result from femoroacetabular impingement (FAI), and may not be associated with a specific traumatic event.
- Due to its nerve innervation, an isolated labral tear can result in pain.
- Labral tears can cause micro-instability of the hip joint, leading to increased stresses between the femur (ball) and acetabulum (socket), which can lead to cartilage damage and progression of arthritis.

CAM Impingement

Normal

Cam



- Cam impingement occurs when the femoral head has an abnormally large radius, or an abnormal “bump” of extra bone, with a loss of the normally round shape of the femoral head.
- With a CAM lesion, the “ball” part of the “ball and socket” joint takes on more of an oval shape rather than a circle, and can cause impingement or pinching against the labrum.
- This may occur due to genetic factors or acquired factors, such as abnormal closure of the femoral head growth plate during adolescence, especially in youth athletes.
- This may lead to abnormal contact between the ball and socket, especially with certain ranges of motion, causing damage to the labrum and joint surface.
- With repetitive motion, CAM femoroacetabular impingement (FAI) may result in labral tears and articular cartilage injury.
- Cam impingement has approximately a 3-to-1 predilection for males to females.

Home Exercises before Hip Surgery

Goals: Increase lower body strength with good core control.

Please see how you feel with these exercises. If something causes discomfort or pain – don't push through the pain to do it.

PreHab exercises: Page one – Do these 3x10 on each leg daily. All other exercises, start with 1x10, with good form, 2-3 times per week. If pain, or unable to complete without good form, skip that exercise.

You can do any exercise you like that causes no pain during or lasting pain the days after the activity.

Do not over-stretch, you can do light stretching – gently holding 3x30 seconds.

A. Standing Hip Abduction in Internal Rotation:

3 sets / 10 repetitions / Once a day

Standing on one foot, point opposite toe inward slightly. Maintaining a level pelvis, lift your straight leg out to the side and hold for 2-3 seconds before slowly returning to start position. Do not lean away from the moving leg. Repeat on both sides.



B. Bridges

Choose one exercise per day

1 set/ 20-30 repetitions / 3 x per week

For each exercise, continue each repetition when able to hold stable AND no pain is felt.

Double leg bridge: Lying on your back place rubber tubing around knees with hip and knees bent. Raise buttocks while keeping core stable then slowly lower.

Single leg bridge: Progress to single leg bridging.

Bridge with shoulders on Ball: Progress to laying with shoulders on ball and feet on floor then lowering and raising your buttocks.

Bridge with single leg: Progress to lifting one leg by extending the knee then perform with the other leg. Do not go up and down with the hips.



C. Sidelying Glut Medius Clams:

1 set/ 20-30 repetitions / 3 x week

Please avoid sidelying straight leg raises as the joint reaction force is greater in this position (clams, as pictured, are okay to perform)

Neutral Hip Clams:

Laying on your side, hips **straight** and knees bent to 90 degrees. Engage TA & squeeze glute to raise top knee without shifting pelvis, heels remain together throughout. Do not allow spine to collapse to table.



Hip Extensions: Keeping chest flat on table, engage TA, then squeeze glute and lift heel toward the ceiling, Keep hips touching table. Repeat twenty times.



Romanian Dead Lift: Keeping knee straight, reach down toward the floor as you lift one leg toward the ceiling. With a flat back, reach down until feeling a light stretch in the hamstring, stand up tall to return to start position.



Double Leg Squats: Start standing with feet shoulder width apart, bend at the knees – sitting back as if into a chair, to 60°. Do not allow knees to go past toes. **3 x 30**



Bridge with Ball (heels on ball) Keep TA drawn in, slowly lift up hips and keep them even & controlled throughout motion. **Repeat for ten repetitions**



Bridge with Ball to Hamstring Curl – Dig heels into the ball and pull heels toward buttocks, keeping hips high and controlled. **Repeat for ten repetitions**



Toe Bridges. Keep TA drawn in, slowly lift up hips and keep them even & controlled throughout motion. **Repeat for ten repetitions**



Be well,

Stay active – and keep moving!