Questions and Answers about Hip Dysplasia and Periacetabular Osteotomy (PAO)

You need a PAO? Now what…

Dr. Swann discussed with you and your need for surgery. Below are common questions in relation to hip dysplasia and your condition.

What is hip dysplasia?

Dysplasia can also be referred to as developmental dysplasia of the hip (DDH), where through a child's early development, the hip socket (acetabulum) doesn't form normally. It is usually too shallow and the femoral head (ball) is partially uncovered, sometimes it can be facing more backward than forward (retroversion).

What are common symptoms with dysplasia?

Many people, especially women, have dysplasia and don't know it until their mid to late twenties or thirties. Most of the time, people will start to get pain in the front of their hip (groin) after prolonged walking. Walking up or downhill can also be difficult. Sometimes they feel a dull ache in the groin, other times catching or popping.

What happens inside a dysplastic hip?

Since the weight bearing surface of the acetabulum (socket) is smaller/shallow, it has to withstand more force and tends to wear out faster than if it shared the forces with more surface area of the acetabulum. The cartilage and labrum are the cushion between the ball and socket (clear space on x-rays), and this can get damaged and start to degenerate (develop small tears and arthritis). If left untreated the majority of dysplastic hips need hip replacement (total hip arthroplasty) at some time in their life.

Does pain correlate with dysplasia?

Not necessarily. Sometimes people have significant dysplasia without significant symptoms to warrant a big surgery. In those patients, we observe the hips over time with x-rays and re-evaluate their symptoms every year or two.

What does "Periacetabular Osteotomy" mean?

"***Peri***" means around, "***acetabular***" means the hip socket, and "***osteotomy***" means to cut bone. Thus the surgery involves cutting out or carving around the hip socket to move it to a new and better location.

What is involved in a Periacetabular Osteotomy (PAO)?

The surgeon goes through an incision over the front of the hip about 6 inches long, going muscles to get to the pelvis, then with x-ray guidance (fluoroscopy) carefully cuts through the three pelvic bones (ischium, pubis, ilium) around the acetabulum to free it from its original position, then holding the acetabulum in its new location, it is fixed there with screws (usually 3-6) and bone graft if needed.

What other surgical procedures are there?

Sometimes if the angle made by the femur and head is too low (varus) or too high (valgus), then an osteotomy of the femur may be needed. This helps the femoral head to be in a more normal position to preserve it from wearing out. This surgery is called a proximal femoral osteotomy. A hip scope cannot make the socket deeper so that usually won't solve the problem of hip dysplasia.

What are the major risks to the surgery?

Blood clot: this risk is reduced by using a blood thinner, aspirin for six weeks after surgery, compression boots on your feet to increase circulation while in the hospital.

Infection: IV antibiotics are given before surgery, which are continued for 24 hours after surgery, but nothing long-term is prescribed.

Nerve Palsy: a sensory nerve called the lateral femoral cutaneous nerve is right where the incision is. We do our best to identify it and protect it but there is a 50% chance you will have some numbness over the side of your thigh and over time sensation usually returns. There are also bigger nerves, femoral and sciatic nerves, which are deeper and can get stretched with a big correction/surgery, but this is very rare (<1%).

Failure to heal: this is also uncommon but always a concern, especially if you smoke. If the bone doesn't heal, the screws can break and the socket can move. An additional surgery to increase bone healing could be needed, but very rarely.

STOP SMOKING – NOW It is VERY important if you are a smoker to stop NOW. Smoking can increase your risk of infection, cause a delay in bone and incision healing. These can cause the need for additional surgery and lifelong problems. You cannot have a PAO and smoke, you will not heal.

Lab work
Prior to surgery, lab work will be obtained, a CBC and a CMP and a type and screen. Generally, we obtain these labs while you are in clinic, however, if you have scheduled your surgery months in advance, this will need to be done no more than 30 days prior to your surgery date. Contact our office when the time gets closer and we can instruct you further. If you are sexually active, please ensure that you are NOT pregnant prior to the procedure, the OR will do a pregnancy test the morning of surgery, but if there is a possibility, please take a pregnancy test one week prior, to be sure that you are not pregnant.

Prior to surgery
Hold all NSAIDs (ibuprofen, Advil, Motrin, Aleve, Mobic, Diclofenac) one week prior to surgery. Call the hospital the day before surgery for your arrival time (see your sheet with your surgical dates for more information). Obtain some good crutches, you will be using them for about 8-12 weeks. Also, if you feel that you may need a shower seat, toilet seat riser or any other equipment such as reacher /grabbers, get those ready for when you come home. A prescription can be provided, however, not all insurances cover these costs. Sometimes it is more cost effective to pay for them out of pocket instead.

Hospital stay
The hospital stay is 1 -3 days. This can vary depending on how well you do and how well you feel.

Parking: Free Valet or Self-Parking available near main entrance

Check-In Desk is at the Main Entrance

Anesthesia
You will discuss your anesthesia options with the anesthesiologist the morning of surgery.

Will I need a blood transfusion?
You may. We recycle the blood you lose at surgery and give it back to you if there is enough. There is a 5-10% chance that you may need a transfusion. Your blood type has been screened and will be matched very carefully by the lab at the University if it is determined that a transfusion is needed.

What to expect while in the hospital

Your room

You will be staying at the main hospital, the rooms have been converted from two-patient rooms to single patients rooms. This allows for you to have guests stay with you while you are inpatient. Visiting hours are flexible and designed to meet the individual needs of the patient.

Nurses/aids/physical therapy

The staffing at the hospital consists of a nurse and an aide. Normally, these people work from 7-7, am and pm. They rotate shifts and you may have the same nurse/aide throughout your stay, but more than likely they will change. Physical Therapy will visit you each day, multiple times based on their patient load. This generally is the same therapist, but they can change as well. Nurses are crucial in your recovery and pain control. Ensure good communications with them, tell them how you are feeling, how well (or not) your pain is controlled, medication questions, discharge questions etc. Your aides will help you get up to the bathroom, change your sheets and assist you in your daily activities.

Pain control

You will be given medication before surgery to start working, after surgery, your pain will be controlled with the use of a spinal anesthesia for surgery, and once you are out of surgery you will be given IV and oral analgesics to help with pain control. Generally, each patient is given a standard dosing of pain medication to help control pain. Discuss with your care team in the hospital how you are feeling and how well your pain is controlled. Sometimes what works for one patient, may not work for another. This is especially true if you have already been taking narcotic pain medications prior to surgery. Please limit use of all narcotics (discontinue if possible, this is ideal) to a few as possible, so it is easier to control your pain afterwards.

Ice packs can help relieve swelling and soothe painful areas, ask your care team for ice packs when needed. You can take them home and use them for pain control when you are home as well. This is one of the easiest, yet very effective methods of pain control. Do not apply directly to your skin, ensure there is some light cloth between the ice pack and the skin so you do not "burn" your skin. **Use ice AT LEAST 3-4 times a day for 20 minutes each time**.

Therapy while in the hospital

Starting the day after surgery you will have Physical Therapy twice a day that includes gentle exercises, learning to sit, stand and walk with partial weight-bearing and crutches. A therapist will go over these activities with you in depth during your hospital stay. You may take a few steps the first day around your room or even walk to the hallway. After you leave the hospital, the only important therapy you have to do is walk, rest and let your surgery heal.

DISCHARGE AND RECOVERY

What happens when I leave the hospital?

You will discharge from the hospital to home about 1 – 3 days after surgery. It is important to have someone that will be home with you to help, especially for the first few days.

Narcotics

Only take narcotics for as long as needed, about 7-21 days from surgery. Be aware that sometimes anti-inflammatories (NSAIDS) can slow down bone healing, but Tylenol is a good alternative; be careful to stay under 3000 mgs in a 24 hour period. After six weeks you may begin to use NSAIDs again. If you are struggling to manage your pain after discharge from the hospital, call the office and your pain medication regimen can be discussed.

What do I do at home while recovering?

For the first 6 weeks: finish taking blood thinners (aspirin for4 weeks); walk with crutches (partial weight bearing); keep wound clean. DO NOT IMMERSE YOUR INCISION (i.e. hot tub/pool/bathtub) until completely healed, this could be six weeks or more.

For the next 6 weeks: transition to 1 crutch **as instructed by your physician** until three months after surgery; may start gentle stretching or strengthening exercises; physical therapy prescription will be provided

After 3 months: return to work part time or full time as tolerated (2-3 months from surgery), continue to walk, and return to gentle exercise.

After 6 months: You may return to full activity (when the bone cuts are completely healed) except for running/jumping activities. The best lifelong activities are walking, swimming, biking to preserve your hip's cartilage and delay the need for a total hip replacement.

When can I drive?

Usually 3-4 weeks after surgery (when you're safe enough to not be at fault if you get in an accident and off narcotics). If this is the right side, you may not drive until 8 weeks.

When do I see my doctor after surgery?

You will have a dressing that is to remain intact for two weeks. Your first visit back to clinic will be at two weeks, these appointments have been set for you when you signed up for surgery. You will see the surgeon about 8 weeks after surgery for x-rays and gait evaluation. At that point, your surgeon will determine the next visit, which is generally at 6 months, 1 year, and every year or two to evaluate how your hip is progressing.

How long will it take to fully recover from this surgery?

You will be using 2 crutches for six weeks, then progressing to one, then to zero but it can take 9-12 months to feel fully recovered. You may experience fatigue initially, but this is normal and is part of a major surgery and how your body responds in order to heal, you will get better with time. The first couple of weeks are the roughest, even easy tasks can be daunting. As time moves forward, things become easier again, it may be slow, but you are recovering.

How long will the PAO last? Will I need another surgery?
The hope is to prolong the time when you need a hip replacement (total hip arthroplasty). The exact time in years is unknown and based on the amount of arthritis in your hip already.

What lifelong activities can I do or not do?
We advise patients to resume what they can tolerate, especially walking, swimming and bicycling. We discourage repetitive jumping, running and heavy manual labor and lifting. These activities tend to wear out your hip faster.

Who do I call if I'm having problems after surgery?
Contact the Physician Assistant or Medical Assistant who works with your surgeon at (303)344-9090. For emergent issues after-hours/weekends, call the main line for Advanced Orthopedic and ask to page the Orthopaedic Resident on-call.