

The Pediatric Orthopaedic Center at Arnold Palmer Hospital

83 W. Columbia St. Orlando, FL 32806 321-841-3040 f:321-841-3049

GANZ PERIACETABULAR OSTEOTOMY

Thank you for the opportunity of allowing us to take care of you. We understand that there are many questions regarding your hip surgery for you and your parents. This information packet will try to explain and answer most, if not all, of your questions regarding what happens before, during and after a Periacetabular osteotomy and/or other hip osteotomies; so you can be informed and understand. Our priority is your safety and well-being. We are here to help you.

What is a periacetabular osteotomy?

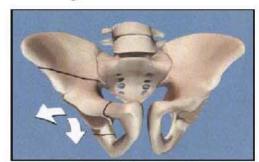
The Periacetabular Osteotomy, or P.A.O, is a surgical treatment for acetabular (hip) dysplasia that preserves your own hip joint rather than replacing it artificially. The hip joint consists of two

parts: the femoral head (the ball), and the acetabulum (the socket).

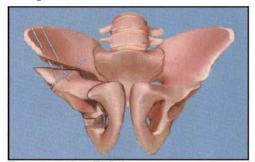
Acetabular dysplasia occurs when the hip socket is too shallow and does not completely cover the ball. This can cause abnormally high stress on the outer edge of the acetabulum causing pain and can ultimately lead to arthritis. The goal of this procedure is to decrease the pain in your hip and to delay or decrease the chance of hip arthritis which may eventually lead to a hip replacement by enhancing the femoral head coverage.

How is this procedure done?

"Periacetabular" means around the acetabulum (hip socket); "osteotomy" means to cut bone. In other words, a P.A.O. procedure means that the surgeon cuts the bones carefully around the



Preoperative Pelvis



Postperative Pelvis

acetabulum. The acetabulum is detached from the pelvis and rotated to a position in which the acetabulum and cartilage will now the femoral head in a better and more normal position. The new position of the acetabulum is then secured with 3-4 screws to ensure correct positioning while the bone is healing. The healing is enhanced by bone grafting the area.



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The surgery usually takes 3 to 4 hours. Due to the cuts in the bone that are made during this procedure blood loss is a possibility. You have the option to pre-donate your own blood one month prior to surgery. That way if your hemoglobin levels are too low after surgery you can be given your own blood back. We will set this up for you if you decide to donate. Also, we use a system that allows using the blood lost during surgery to be transfused back to the patient.

Example of dysplastic (shallow) hip before surgery



4 months after surgery showing improved coverage of the hip and healed bone cuts. Note the left side is still shallow



Remember: you may not take any medications containing aspirin or ibuprofen (Motrin, Advil, or Aleve) two weeks prior to your surgery. These medications can increase your risk for bleeding during your surgery.



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What happens after surgery?

Once you are fully awake in the recovery room you will be transferred to a room on the inpatient unit. You will be placed on a special bed with an air mattress. You will also have a special frame attached to your bed for an overhead trapeze; this will be helpful for moving in and out of bed.

The incision will be covered with dressing to collect any bleeding that occurs after surgery. Ice blanket will be applied to the incision area to help with pain and swelling.

You will have a Foley catheter in your bladder. This is placed while you are asleep in the operating room. This catheter will drain your urine into a bag so you will not have to get out of bed to use the bathroom. This catheter will stay in place until you are able to get in and out of bed, usually a day or two after surgery.

You will have TED hose (white elastic stockings) on both legs and pumps called SCDs (sequential compression device) that gently squeeze the calf or the foot to help prevent blood clots.

A CPM (continuous passive motion) machine may be utilized. This machine will gently bend your leg at the knee to help prevent stiffness in the hip and help with pain control. You will only use the machine in the hospital; you will not need to take it home.

How long will I be in the hospital?

Most patients are in the hospital about 4-5 nights. Once your pain is controlled with oral pain medication and you are eating and drinking, and once physical therapy determines you are safe on your crutches you may go home.

How will my pain be managed?

In the first 24-48 hours after surgery, you will be given a pain control pump (PCA) that allows you to control the pain you are in. While the PCA is in place your nurses will be monitoring you closely to make sure that you are breathing properly and have good pain control. The PCA will be used for the first two days. We also supplement the pain medication with Valium when spasms occur. Then, you will be switched to oral pain medication. Please understand that there will be some discomforts however, you just had major surgery.

What are my activity restrictions?



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Once you are able to get out of bed, physical therapy will help you learn how to sit in bed, transfer to a chair and how to use crutches to walk. Physical therapy will supply the crutches. You may touch your toe to the ground for balance and place partial weight on your leg (20-30 pounds) on the hip that was operated on. Placing full weight on the operated side prior to bone healing can cause the screws to bend or break and the acetabulum to lose correct positioning. When you see your doctor at your 6 week follow-up appointment he will let you know when you are able to begin walking.

When you go home you will be given the physical therapy package with the exercises you need to continue doing to help you recuperate quicker.

What should I expect the first days?

You will also have several lines. These include pressure monitors and access for medicines and fluids. One line will help you urinate and another will drain your back, both for the first couple of days. By the second or third day we have you out of bed, standing and taking some steps. Major surgery often slows down digestion. Therefore, for the first day Dr. Herrera or Dr. Ramo will keep you on clear liquids or fasting to prevent vomiting. You will have plenty of intravenous fluids to hydrate you though. In fact, most people loose weight the first six weeks or so.

What are the possible complications?

The benefits of the surgery proposed outweigh the risks of it by far. But, we want to make sure you are aware of the possible complications. They include profuse bleeding, infection, pneumonia, other breathing problems, anesthetic risks, transfusion or medication reactions, temporary or permanent nerve injury, failure or breakage of instrumentation, failure of the bone not to heal that may later require surgery, urinary retention, temporary constipation, and even death. Any of these complications could lead to more surgery or permanent impairment. Fortunately, these complications are uncommon and the vast majority of patients go through surgery without any unexpected problems. We tell you about these risks so that you will know that we have considered the risks of surgery before recommending this procedure.



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Post-Operative Instructions

<u>Medications</u>: You will be given 2-3 prescriptions for medication to take at home. Two are pain medications and one is for constipation.

Diazepam (Valium) can be taken every 8 hours as needed for muscle spasms. Percocet or Lortab can be taken every 4-6 hours as needed for pain. It is important to remember that these pain medications have acetominophen in them so please **do not take any additional acetominophen or Tylenol** with them.

Colace with Senna should be taken every 12 hours while constipation symptoms are present. This medication a stool softener with a laxative. Once you have had a normal bowel movement you may stop taking this.

You can stop taking your pain medication whenever you feel like you can. A good way to wean off the pain medication is to increase the time between doses. For example if you are taking 1 tablet every 4 hours extend that time to every 6 hours, then every 8 hours and so on. Ibuprofen is a great alternative to narcotics for pain control. Take as directed on the bottle. It is recommended that you are off all narcotic pain medication before returning to school.

<u>Wound Dressing</u>: Dr. Herrera, Dr. Ramo or a member of the team will evaluate the wound 2-4 days after surgery and redress it. You can remove the dressing at home 7 days after surgery. There will be small pieces of tape along the incision called "steri-strips." Leave these on until they fall off: about 2-4 weeks. Leave the incision open to air. Do not re-bandage. If a drain system was used, it will be removed at the time of dressing changes.

Showering: You may shower 7 days after surgery, after you have removed your dressing. You can allow the shower water to run down the incision. Do not scrub the incision. Pat the incision dry with a towel after showering. Do not soak in a tub or pool until cleared by physician. Pool activities are not safe for at least 6 weeks due to the risk of injury to the operated side.

Weight Bearing:

You will be on crutches for a total of 6 weeks. At your 6 week post-op appointment your physician will allow you to begin to walk without crutches if the radiographs show adequate healing.



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Equipment: The equipment that is advised for this surgery is an elevated toilet seat and a shower chair. We will consult the social services department in our hospital to help you obtain these.

<u>School:</u> It is recommended that you take about 2 weeks off from school. You should not go to school until you are able to stop taking your narcotic pain medication. Please let the nurse know if you need any letters from the doctor for your school. You will not be allowed to participate in physical education until your Dr. Herrera-Soto clears you to.

Follow-up: You will need to schedule a follow up appointment for the following times:

6 weeks after surgery: your physician will check the wound and make sure that your pain is well controlled. You will have radiographs taken and an exam. If the bone is healed you will be able to start putting all of your weight on your leg. You will also be given some physical therapy exercises to start at home.



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<u>3 months after surgery</u>: you will have radiographs taken and an exam. Your physician will talk to you about getting back to your normal activities.

<u>6 months and one year after surgery</u>: you will have radiographs taken and an exam to make sure everything is going well.

If there are any other serious concerns during visits, please call the office and Dr. Herrera-Soto, Dr. Ramo, or a member of the team will gladly evaluate you.

If you experience severe pain that your pain medication does not relieve, you should let us know. If you experience a temperature over 101°F or 38.3°C, redness or swelling in your thigh or calf or shortness of breath, please contact our nursing line.

During normal business hours please call: (321) 841-3040.

Evenings and weekends please call: (321) 841-3040, ask for the orthopedic resident on call.



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Post operative exercises

What can I do with my hip?

You will learn exercises using your ankle and thigh muscle to do at home. They will help strengthen your leg. It will be difficult for you to lift your leg upward after surgery as one of the bone cuts is near the tendon that facilitates this movement. Strength will return in about 2-3 months.

Ankle Pumps:

Moving from the ankle, push the front of your foot up and down. Perform 10 times and repeat 3 sets each day.

Quad Sets:

Tighten the muscles on the top of your thigh and press your knee down against the bed. Hold for 10 seconds and repeat 3 sets per day.

Straight leg raise:

Keeping your knee straight, lift your leg as shown. Perform 10 times and repeat 3 sets per day.