

## PERIACETABULAR OSTEOTOMY (PAO)



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### WHAT IS PAO?

PeriAcetabular Osteotomy (PAO) is an operation to realign your hip socket. In your hip, the ball of your thigh bone sits in the socket of your pelvis. Patients may have a hip socket that is too shallow (dysplasia) or doesn't face forwards enough (retroversion).

Having a dysplastic or retroverted hip socket means less of the ball of the hip is covered by the socket and this can lead to pain and ultimately the joint wears out prematurely. When the joint wears out it is called osteoarthritis.



*X-ray showing a shallow hip socket*



*X-ray of the same patient after PAO showing improved coverage of the ball by the socket*

The treatment for osteoarthritis is a hip replacement, which should be avoided if possible in young patients. Moving the hip socket to cover more of the ball can relieve pain and delay the need for future hip replacement.

The long term outcome of untreated dysplastic or retroverted hips is not clear. A severely shallow hip, seen on an X-ray, does not necessarily cause pain at a younger age compared to a less shallow hip. However once the hip starts to become painful it usually doesn't improve and the pain gradually increases. Most patients undergoing a PAO are under 35 years old. Most patients over 40 would have a hip replacement but each patient is evaluated individually. A PAO is indicated once the hip pain is affecting your life during day to day activities.

### HOW IS THE SURGERY DONE?

You will have a spinal and a general anaesthetic. The anaesthetist will discuss this with you beforehand. The skin incision is in your groin. The hip socket is made up of three bones; the pubis at the front, the ischium below and the ilium above. In a PAO all three are cut close to the socket so that it can be repositioned. The socket is fixed into its new position with screws. The procedure takes around 2 hours.

## WHAT ARE THE RISKS?

Complications are rare but can be serious:

- **NERVE INJURY**

The nerves supplying your leg run close to the hip joint and could be injured in the surgery. This would give you a weakness in the muscle supplied by that nerve. It would usually recover with time. The risk of a permanent nerve injury is less than 1 in a 100. You will have a numb area on the side of your thigh, it may take a few months to recover but it usually does.

- **BLEEDING**

We use a device called a cell saver which filters any of your blood that we have collected during the operation. We can then give you your own blood back. The risk of needing a blood transfusion (blood that somebody else has donated) is less than 1 in 100.

- **INFECTION**

If you get an infection in the wound it may require another operation to wash it out and a period of time on antibiotics. The risk of a deep infection is around 1 in 100.

- **DEEP VEIN THROMBOSIS AND PULMONARY EMBOLUS**

Following surgery when you may not be as mobile as usual there is a risk of getting a clot in the veins of your leg (DVT). Rarely this clot can spread to your lungs (PE). In hospital we will give you a blood thinning injection every day and compression pumps on your legs when you are in bed. When you go home we will give you an aspirin to take daily for 4 weeks. The most important preventative measure is to be mobilising regularly. The risk of a DVT is around 1 in 100.

- **BLOOD SUPPLY TO THE SOCKET**

The design of the PAO protects the blood supply to the bone of your hip socket. However if the blood supply to the socket was damaged then part of the socket would crumble away. This would then lead to you needing a hip replacement. The risk of this is less than 1 in 100.

- **FURTHER SURGERY**

### SCREWS:

You may be able to feel the screw heads on your hip bone after the surgery. If they annoy you then I can take them out, once the bone has healed, with a small day case operation.

### PERSISTENT SYMPTOMS:

Occasionally patients may still have some hip symptoms after the PAO. This may require another operation, for example keyhole surgery.

### TOTAL HIP REPLACEMENT:

You are still likely to have a hip replacement much later in your life. The PAO will hopefully put this off for many years and you will then be at an age where that hip replacement could last the rest of your life.

## RECOVERY

You will be in hospital for around 5 days. The physiotherapists will see you twice a day to help you mobilise. You will go home using crutches and you can put a little weight through your hip (10kg) for the first 4 weeks. There is no restriction on your hip movement. I will see you in the clinic at the 4 week mark with an X-ray and you can start progressively increasing your weight bearing. Most patients are walking without crutches by 6 to 8 weeks. By 3 months most patients are doing most of their day to day activities. It may take 6 months to get back to sport and your hip will keep improving for at least 12 months.

This recovery timeline is a guide as all patients are different.

Further information is available on the Orthopaedics WA website.

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[www.orthopaedicswa.com.au](http://www.orthopaedicswa.com.au)