

Hip Avascular Necrosis

Avascular necrosis is when bone tissue dies from a lack of adequate blood supply. “A-vascular” means one-sided or uneven blood supply, and necrosis meaning “cell death”. The condition can end up leading to tiny breaks within the bones. Eventually, the bones collapse. The blood flow to various sections of bone can end up being interrupted if the bone is fractured or the joint is dislocated. Avascular necrosis is associated with long-term usage of high-dose steroids and an excessive amount of alcohol consumption. Although most commonly it is secondary to hip arthritis.

Hip joints are the most common of all joints affected by the condition. Even though the condition can happen to anyone, it tends to occur most often in men between 30 and 60 years of age.

Hip Avascular Necrosis Anatomy

The hip is a ball and socket joint connecting the thigh bone (femur) to the pelvis socket. It allows the leg to move. The hip joint is composed of multiple parts, including that of the lesser and greater trochanters. The greater trochanter is the place where countless muscles from the buttocks allow and meet to promote hip abduction and movement from one side to the other. When it comes to the lesser trochanter, this is the point where the iliopsoas muscle is attached to the hip joint to provide for forward movement within the leg, which is otherwise referred to as hip flexion.

Blood supply to the hip joint comes directly from the femoral artery, which is a major blood vessel that comes from the aorta. The femoral artery runs at the front of your groin and if you place your hand over the front of your hip/groin area you may be able to feel a pulse, that being the femoral artery.

It is impossible to diagnose avascular necrosis simply from a hip examination, or a medical history. It's rare, so other hip pathologies tend to be ruled out first. Often the hip will have an X-ray or MRI scan that will show the avascular necrosis.

How to Treat Hip Avascular Necrosis:

1. Rest

Reducing the amount of stress and weight on the affected bone might slow down the damage to the avascular necrosis. You might need to restrict the degree of physical activity in which you engage in regularly. Expert opinion varies between recommending complete joint rest (by way of crutches or wheelchair) to actually using the hip by walking regularly, to stimulate blood flow to the area.

2. Exercise

Certain types of exercise can help you improve or maintain the entire range of movement within the joint. Physical therapists will be able to choose exercises that are specific to your condition and teach you the proper way to perform them.

3. Electrical Stimulation

Electrical currents might encourage your body to grow a new piece of bone to help replace the area that has been damaged by the condition. It can be used during surgery and applied onto the damaged area directly, or it can be applied using electrodes on the skin. Exogen is one such product that might help, or LIPUS (low intensity pulsed ultrasound).

4. Medication

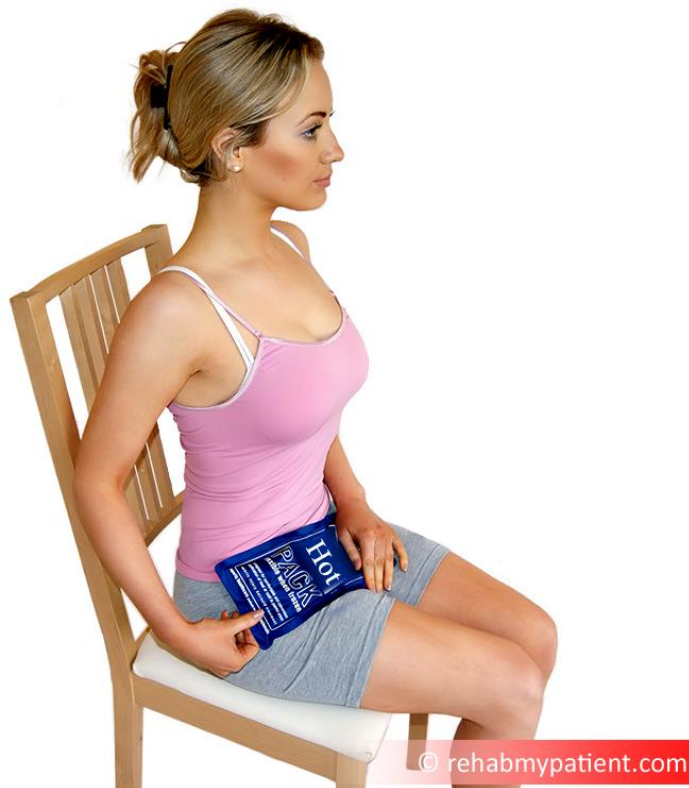
An anti-inflammatory will help to relieve inflammation and pain associated with the condition. Osteoporosis medication can help to slow down the progression of the necrosis. Reducing the total amount of fat in your blood will help to prevent any vessel blockage leading to the condition. For those with clotting disorders, blood thinners might be prescribed to help prevent clots from forming in the vessels that feed your bones.

5. Surgery

In severe cases of avascular necrosis, surgery is recommended by way of a total hip replacement.

Tips:

- Heavy drinking has been attributed to the development of necrosis.
- Tiny amounts of fat tend to be the most common substance that block the blood supply to the bones.
- Osteoporotic bone damage tends to get worse with repeated usage of high-dose steroids.
- Use the hip, but gently. Don't over-use it. Gentle walking and mobility is considered to be helpful.
- Get therapy – it can significantly help the mobility of the hip and also encourage blood supply to the hip joint. Osteopaths are very strong advocates of improving blood supply by treating the front of the hip/groin area.
- Eating garlic or taking garlic tablets can improve blood circulation.
- Apply heat to the groin to stimulate blood flow.



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