

Compartment Syndrome – Thigh/Buttocks

Compartment syndrome happens when there is an excessive amount of pressure that builds up within an enclosed space of the body. It often results from swelling or bleeding following an injury. Due to the dangerously high amount of pressure within the compartment, it impedes the blood flow to the tissues that are affected. In this situation, it becomes an emergency that needs surgery to prevent a permanent injury from occurring.

The condition begins when the pressure in the muscles begins to build to a dangerous level. Due to the pressure, the blood flow decreases, which will prevent oxygen and nourishment from reaching the muscle and nerve cells. The condition can either be chronic or acute. Acute conditions are a medical emergency that is often caused by a severe injury. If the condition is not treated, it can cause permanent muscle damage.

Chronic compartment syndrome, which is often known as exertional compartment syndrome, is normally not an emergency. Most of the time, this condition is attributed to athletic exertion.

Compartment syndrome to the thighs or buttocks is rare.

Compartment Syndrome – Thigh/Buttocks Anatomy

Compartments are groups of muscles, blood vessels and nerves within your legs and arms. A tough membrane covers the tissues known as the fascia. The fascia's role is to keep all of the tissues where they are supposed to be, so it doesn't expand or stretch easily.

How to Treat Compartment Syndrome – Thigh/Buttocks:

Fasciotomy

This emergency surgical intervention is used in patients who have developed the condition as the direct result of ischemia to nerves and muscles in the lower extremities. Patients that have injuries from burns, crush injuries, a vascular ischemic-reperfusion and surgical orthopedic patients that have experienced an extended amount of pressure from tight bandages or casts. If the condition is not detected and treated within a few hours, irreversible nerve and muscle damage can occur, as well as gangrene, joint contracture and even amputation.

Upon examination, the patient will be put under general anesthesia to perform the fasciotomy. Double and single compression techniques have both been used for decompressing the different compartments of the lower extremity, but the double-incision tends to pose less risk of nerve injury in the patient.

Two incisions are made on the calf ranging from five to seven inches. The lateral incision allows access to the anterior and lateral compartments, while the anterior incision provides access to the posterior and superficial compartments. Once the fascia is opened, the swollen muscle will protrude through the incision to relieve the pressure on the nerves and allow the blood to flow through the tissues once again.

Tips:

- Avoid taking anabolic steroids over an extended period of time to prevent compartment syndrome from occurring.
- Regular, vigorous exercise can cause the syndrome to develop in the thigh and buttock area.
- Trauma as the result of shock can cause swelling of the thigh that needs to be addressed quickly.
- Blood clots in the leg can cause compartment syndrome to occur in the thigh.
- Avoid performing a series of movements under pressure to prevent the potential for compartment syndrome.
- If you suspect acute compartment syndrome, seek medical help straight away.