A Patient’s Guide To Gastrocnemius Release Surgery

What constitutes the calf muscle?
The calf is made up of two muscles, the gastrocnemius and soleus muscles. The gastrocnemius is the larger muscle. It has two separate heads that attach the thigh bone (femur) to the heel (calcaneus). The gastrocnemius and soleus join to form the Achilles tendon which attaches to the heel bone.

What happens with calf tightness?
- Tightness in calf muscle/tendon complex can cause:
  - Tension in the Plantar Fascia (causing plantar fasciitis/fasciopathy)
  - Tension in the Achilles Tendon (causing tendinopathy)
  - Flat foot deformity associated with other muscle weakness
  - Forefoot overload (metatarsalgia, ulcers in diabetic patients).

What are the indications of surgery?
In most cases, this procedure will be recommended for a patient who has had significant pain that does not respond to stretching exercises and other non-operative treatments.

What does the procedure involve?
The goal of the procedure, which also called a gastrocnemius recession, is to lengthen the calf muscle to reduce the muscle tension.

The operation is normally performed under local or general anaesthetic. A small incision is made on the back of the calf just below the knee or mid calf region depending on the severity and the fascial covering of the muscle is released to help relieve the calf tightness.

For certain conditions, gastrocnemius recession is recommended in conjunction with a larger surgery. For example, tight calf muscles can be a factor in some flatfoot corrective surgeries.

What can I expect after the surgery?
Gastrocnemius surgery is done in an ambulatory setting. The patient can go home a few hours after the surgery.
When can you walk after surgery?

Patients may walk immediately after the surgery when it is done in isolation.

Some patients may need crutches for a few days and a walking boot for two to three weeks. In both instances, however, a splint is worn while sleeping for six weeks after surgery to keep the calf muscle stretched.

In most cases, the calf muscle will feel stretched or tight for just a few weeks. The stretching that begins shortly after surgery may be uncomfortable. Discomfort can be managed with over the counter pain medication.

Are there any risks of surgery?

There are two small nerves that sit along the gastrocnemius muscle that may be stretched during the procedure. When you stretch the muscle, occasionally the nerves are stretched as well. This can cause a passing sensation of numbness or tingling.

Based on studies, this complication occurs in about 5% of cases and resolves within six to eight weeks. There is a much smaller risk of infection, bleeding, and blood clot.

What can I do after surgery?

Physiotherapy

You should restart stretching exercises seven days after the surgery. This is an important part of your recovery.

Driving

You should inform your insurance company of your operation. It is advisable to avoid driving for the first 2 weeks after the operation or until you can perform an emergency stop without restriction.

Work

Most people can return to work one to two weeks after surgery. If you have a physically demanding job, you may need longer before returning to work.

Sport

It is advisable to avoid strenuous exercise, including swimming, until you are reviewed by your consultant after your operation.