Growing pains are painful and restricting medical conditions that affect children most often between the ages of 8 and 16 years. There's a common misconception that there's nothing that can be done when growing pains develop and that they're a natural part of ageing in kids, but this isn't the case at all. Growing pains are very much treatable once they start – and something that we commonly help families with here at Masterton Foot Clinic.

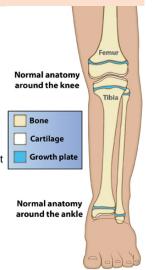
## WHAT CAUSES GROWING PAINS?

While bones are growing bigger and longer, every bone has areas called growth plates to which the body adds new bone. Taking the shin bone (tibia) as an example, its growth plates are located both at the top and bottom of the bone:

These growth plates are weaker than the surrounding bone, making them more vulnerable to damage when stressed or strained. This is exactly what happens with growing pains.

The excess stress or tension on the growth plate is often caused by the muscles and tendons that connect to the bone around the growth plate. As we grow and our bones lengthen, our muscles need to keep up and grow and lengthen at a similar rate. When they don't, tight muscles can pull on our bone, especially when we're active during exercise, irritating the growth plates and resulting in pain and swelling.

There are three areas at the feet and legs where growing pains most often present: at the heels, the knees, and the mid-foot. We've detailed each of these below. Adults don't experience growing pains because when our bones mature, the growth plates turn into solid bone, and hence we don't grow any bigger.



#### **HEEL PAIN: SEVER'S DISEASE**

This is the most common growing pain that we see and manage. Don't worry about the term disease – it's a condition that is present until the cause is addressed. Here, the growth plate at the back of the heel is damaged and irritated from the repetitive pulling and strain by the Achilles tendon, the strongest tendon in the body, that attaches to the very back of the heel, close to the growth plate.

Running sports place a great demand and load on the Achilles, and low-set shoes like soccer boots and activities that point the toes upwards (towards the sky) can exacerbate this load. The result is mild to severe pain at the back of the heel that can stop your child on the field mid-game, and see them limping off.

# **KNEE PAIN: OSGOOD SCHLATTERS DISEASE**

This growing pain affects the knees and involves the growth plate at the very top of the shin bone. The stress comes from the patellar tendon that runs from the thighs, across the knee, supporting the kneecap, and attaches to the top of the tibia close to the growth plate.

Tightness and problems with the gastrocs are a common culprit, as well as engaging in repetitive high-impact activities like running and jumping. The result is pain and swelling just below the kneecap which worsens when bending and straightening the knee. Pushing down below the kneecap is also likely to produce pain.

### FOOT PAIN: ISELIN'S DISEASE/SYNDROME

This pain presents on the outer border at the middle of the foot, affecting the base of your fifth metatarsal (the long bone of the foot, connected to your pinky toe). If your child starts feeling pain along the outside of the foot that may be accompanied by swelling, or they start walking on the inside of their foot or limping to try to avoid pain, then this may be the cause. Like knee and heel pain, their symptoms will be aggravated with exercise (and tight, narrow footwear) and will feel better when they rest – until they start running and being physically active again.

### TREATING GROWING PAINS

We treat growing pains and help reduce the likelihood of them returning next season by addressing the cause of the irritation to the growth plate – the tight muscles or tendons. We do this by working with your child to lengthen the specific tight musculature, while treating any damage that may have already occurred to reduce the pain. Without a tense and tight muscle to pull on the bone, there is nothing to irritate the growth plate, and so no reason for the pain to start.



Our Values - We







