Pilates for Plantar Fasciitis

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Abstract

Pain is one of the most obvious symptoms of plantar fasciitis. This common condition involves the inflammation of the plantar fascia. In this research paper we address the underlying cause of the problem.

Exercise programs, such as a regular Pilates, can help achieve and maintain the muscular flexibility and strength leading to relief and recovery. Within this paper I present a Pilates program addressing the body to ensure it can serve as a strong foundation for optimum movement and function through planter fasciitis.
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What is Plantar Fasciitis:

The plantar fascia is the band of tissue that runs along the bottom of the foot, connecting the heel bone to the toes. The plantar fascia provides a strong mechanical link between the heel bone and the toes so that it supports the impact of weight bearing through the foot.

Plantar fasciitis is pain on the underside of the heel bone where the plantar fascia attaches. Pain is usually worse first thing in the morning and with increased weight bearing activity.
Introduction.

Research supports both stretching and strengthening for this condition. The recommendation is to treat the fascia like any other tendon injury and improve its loading capacity as the fascia needs to stretch and contract to support the weight of the body. We also know that this is not just an inflammatory condition but also degenerative one hence the plantar fascia needs to be strengthened.

Why does it occur?

The main cause of plantar fasciitis is usually an overuse injury, sometimes brought about by repetitive stress on the outside of edge of the foot that increases the tensile force on the plantar fascia and results in a lowering of your plantar arch. This results in the plantar fascia’s inflammation and degeneration, usually where the fascia connects to the heel bone. Most of the time the condition erupts in a one foot or the other, typically from subjecting your feet to various factors that contribute to the condition.

People in occupations that involve a lot of standing or walking are prime candidates for plantar fasciitis, as are those who are overweight or pregnant. The condition is also known to hit people who habitually wear poorly supportive, thin-soled footwear or are consistently working or playing sports on hard surfaces. The calf and foot may not be strong enough to support the weight required in everyday activities.

Faulty biomechanics like reduced ankle flexibility and tight calf muscles can also be to blame. Excessive pronation caused by tight calves and weak foot muscles can result in too
much loading through the planar fascia. Pronation can increase with age, as can the reduction in
the fascia’s elasticity, increasing the risk even further.

How to treat?

STRENGTHENING/STRETCHING STAGE:

Once the symptoms are less acute and painful you can start the strengthening phase with
some stretching. The common approach has been to just stretch the fascia and there is
some research to support this. More recent studies have shown that straightening the foot
and ankle muscles is effective as well as strengthening and stretching the calf’s and
hamstrings.

Every case is different therefore by using the Pilates approach we address the body to
achieve the goal, balance.
# Conditioning Program

<table>
<thead>
<tr>
<th>DAY</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Reason for selection:</th>
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<tbody>
<tr>
<td>Warm up</td>
<td>Basic warm up: Pelvic curl, Supine Spine Twist, Chest Lift, Chest Lift with Rotation</td>
<td>Cadillac warm up series: Roll up with RUB, Mini Roll-ups, Mini Roll-ups with oblique, Roll-up top loaded</td>
<td>Basic warm up: Pelvic curl, Supine Spine Twist, Chest Lift, Chest Lift with Rotation</td>
<td>To warm up the body following the BASI comprehensive block system.</td>
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<td>Hip work</td>
<td>Reformer. Frog Circles Openings</td>
<td>Cadillac Supine Single leg series. Frog Circles down Circles up Hip extension Bicycle &amp; Reverse</td>
<td>Cadillac Side lying single leg series. Changes Scissors Circle forward Circle back</td>
<td>To condition the mobility of the muscles acting on the hip joint focusing on hamstring strength and flexibility.</td>
</tr>
<tr>
<td>Spinal Articulation</td>
<td>Reformer. Bottom lift Bottom lift with extensions</td>
<td>Cadillac. Monkey Original</td>
<td>Cadillac. Tower prep Tower</td>
<td>Spinal articulation with the additional dorsi and plantar flexion control and strength</td>
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<td>Stretches</td>
<td>Full Body Integration (F/I)</td>
<td>Full Body Integration (A/M)</td>
<td>Arm work</td>
<td>Leg work</td>
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Plantar Fasciitis can affect both the athletic and more sedentary population. There are many factors that can cause the plantar fascia to become irritated. Generally, research and clinical experience supports both strengthening and stretching programs. Runners and very active patients will need a more specific program to deal with the training demands on the plantar fascia. More sedentary patients will still need an exercise based approach to treat the underlying cause. It can be a stubborn injury to settle down as we are on our feet a lot, so it can be difficult to rest the foot. However, there are lots of treatment options to assist with this recovery period.
Bibliography:


7. Ref: The Oxford Physiotherapy Service: https://www.oxphys.co.uk/plantar-fasciitis/
