

## Plantar Fascia Pre-Stretching

Many people with HPS and PF have what is referred to as "start up" pain. This means that when they first start to walk after lying in bed or sitting, they experience moderate to severe discomfort with the first few steps. This phenomenon is caused by tension suddenly developing in the inflamed fascia as it is initially stretched with weight bearing and push off. Pre-stretching the fascia prior to landing after prolonged immobility will reduce start up pain.

## Pre-Stretch #1

- In the sitting position, fully extend your knee (i.e. straight out) and place both hands on your knees.
- Point your toes towards your head bending your feet upward at the ankle. The more effort you put into this motion, the better the stretch.
- Hold this position as long as possible (minimum 30 seconds).

## Pre-Stretch #2 (Alternate to #1)

- Place the ball of your foot on the edge of a stool while seated with knee flexed.
- Exert downward pressure on the knee with your hands.
- Hold this position for 30 seconds to a minute.
- Repeat as necessary.

## Plantar Fascia Stretching

The following program is designed to stretch the plantar fascia most effectively utilizing a mechanical principle known as creep. Creep is a phenomenon that occurs when a sustained stress is applied to a deformable material. If creep takes place, the material (or tissue) does not return to its original length when the force is removed, but rather has undergone some permanent deformation. In the case of the plantar fascia an increase in length can be recognized. Therefore these plantar fascia stretches should be sustained for the recommended times to allow creep to occur.

### Stretch #1

- Position yourself with the ball of your foot on the edge of a stair.
- Holding the rails for balance, allow your heels to sink downward. You should be relaxed and no active muscle contraction in your legs should be necessary.
- Hold this position for 4-5 minutes.

### Stretch #2 (After Completion of Stretch #1)

- Roll a towel tightly so that its diameter is 1 to 1 1/2 inches.
- With your toes of the leg to be stretched approximately 1 1/2 feet away from a table or a wall, place the towel under your toes, but allow the ball of your foot to rest on the ground.
- Place your opposite leg straight back for balance.
- Keeping your heel on the ground, now force your knee toward the wall.
- This position is difficult to maintain for long periods of time, but the longer that you can do it the better. Minimum time for each stretch should be 30 seconds. Total stretching time of 2-3 minutes should suffice.