

Stretching and Strengthening Exercises



Why is Stretching Important?

Many lower limb conditions are related to muscle tightness and overuse in the foot and ankle.

Stretches are prescribed to improve associated muscle tightness and joint range of motion.

Together with other management strategies such as the use of appropriate footwear and foot orthoses, they seek to reduce pain and enhance function.

When Should You Stretch?

Unless otherwise stated by your healthcare professional, You should:

- Stretch at least once a day
- Hold each stretch for a period of 20-30 seconds
- Repeat the stretch 10 times on both sides

How Should you Stretch?

- Do not twist or bounce during stretching
- Stretch barefooted
- A gentle pull in the respective muscle groups should be felt. When painful, back it off.

Note: If you experience any moderate or severe pain before, during or after stretching, DO NOT continue. Seek medical advice from qualified healthcare professionals as necessary.

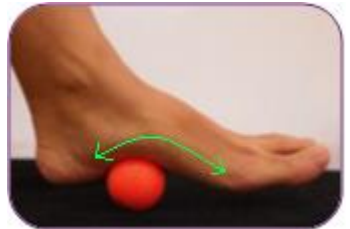
❑ Plantar Fascia Massage

- Sit in a chair with one ankle resting on the other thigh
- With your hand on the same side, grasp your toes and gently pull them towards you
- Use the other hand to massage the arch of your foot at the same time



❑ Plantar Fascia Roll

- Using either a can or exercise ball, roll your bare foot back and forth over the ball/can from toes to heel
- A frozen can may offer added relief after activities



❑ Towel Stretch

- Sit down and extend both legs
- Pass a towel around the top of your foot
- Slowly pull the towel towards your body
- Switch sides and repeat



❑ Tibialis Anterior

- Sit down and extend both legs
- Point both feet downwards with all toes facing forwards
- Lean your body forwards



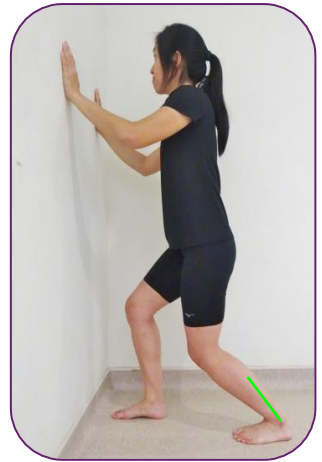
❑ Gastrocnemius Stretch

- Place both hands on a wall and stand an arm's length away from it
- Place one foot behind the other
- Bend your front knee
- Ensure your back knee and back are straight, with both heels flat on the floor
- Do not rotate your hips
- Ensure both feet are parallel
- Switch legs and repeat



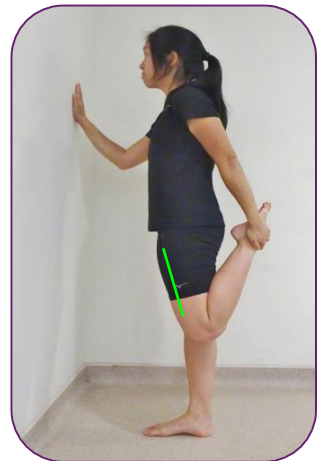
❑ Soleus Stretch

- Place both hands on a wall and stand an arm's length away from it
- Place one foot behind the other
- Bend both knees
- Keep both heels flat on the floor
- Ensure your back is straight
- Do not rotate your hips
- Ensure both feet are parallel
- Switch legs and repeat



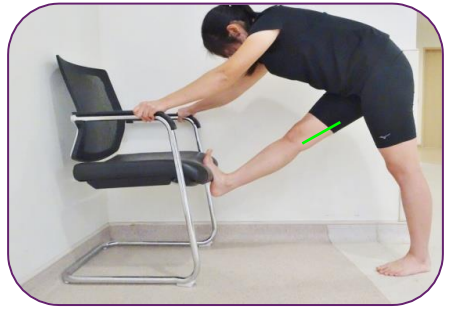
❑ Quadriceps Stretch

- Standing, hold onto a wall or stationary object for support
- Grasp your ankle with your hand on the same side
- Bring your ankle towards your bottom while bending your knee
- Switch sides and repeat



❑ Hamstring Stretch

- Standing on one leg, place the other foot on an elevated surface
- Straighten your knee
- Support yourself by using your hands
- Ensure both hips are square and your back is straight
- Lean your body forwards
- Switch sides and repeat



Strengthening Exercises

Strengthening exercises involve the gradual loading of affected muscle groups to regain function.

❑ Invertors

- Loop a theraband around the inner corner of one foot
- Pull the theraband and gently turn the foot outwards and upwards (A)
- While maintaining the pull of the theraband, gently move the foot inwards and downwards to resist it (B)
- Repeat ____ times
- Switch sides and repeat



❑ Evertors

- Loop a theraband around the outer corner of one foot
- Pull the theraband and gently turn the foot inwards and downwards (A)
- While maintaining the pull of the theraband, gently move the foot outwards and upwards to resist it (B)
- Repeat ____ times
- Switch sides and repeat



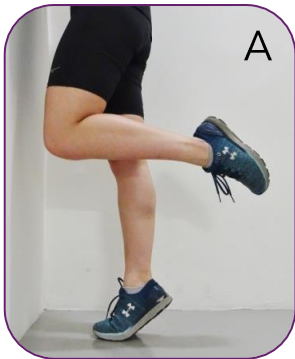
❑ Double leg tip toe

- With both knees straight, go up on tiptoes on both feet (A)
- Gently lower both heels to the ground (B)
- Repeat _____ times



❑ Single leg tip toe Exercise¹

- With a straight knee, stand with all your body weight on the non-painful leg and go up on tip toes (A)
- Transfer body weight to the painful side and stand on tip toes (B)
- Gently lower heel to the ground (C)
- Perform 3 sets of 15 repetitions, twice daily for 12 weeks¹



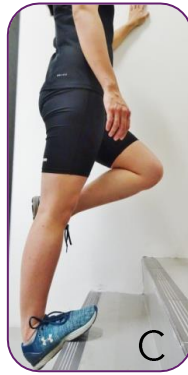
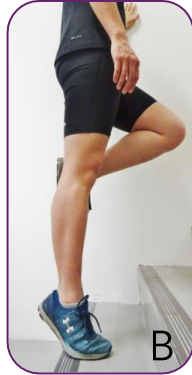
❑ Step Exercises (Double leg tip toe)

- Hold a rail/wall for support
- With both knees straight, go up on tip toes on both feet on a step (A)
- Gently lower both heels below the step (B)
- Repeat _____ times



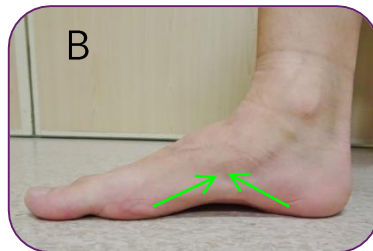
□ Step Exercises (Single leg tip toe)²

- Hold a rail/wall for support
- With a straight knee, stand with all your body weight on the non-painful leg and go up on tip toes (A)
- Transfer body weight to the painful side and stand on tip toes on the step (B)
- Gently lower heel below the step (C)
- Perform 3 sets of 15 repetitions, twice daily for 12 weeks



□ Short Foot Exercise

- Sit on a chair with your knee bent at 90 degrees and your foot flat on the floor (A)
- Using only your foot muscles, bring the big toe joint towards your heel. The arch of the foot should rise. (B)
- Do not flex or extend your toes
- Repeat _____ times



References

1. Jonsson P, Alfredson H, Sunding K, Fahlström M, Cook J. New regimen for eccentric calf-muscle training in patients with chronic insertional Achilles tendinopathy: results of a pilot study. *British Journal of Sports Medicine*. 2008;42;746-749.
2. Mafi N, Lorentzon R, Alfredson H. Superior short-term results with eccentric calf muscle training compared to concentric training in a randomised prospective multicentre study on patients with chronic Achilles tendinosis. *Knee Surg, Sports Traumatol, Arthrosc*. 2001;9:42-47.

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