

STRENGTHENING KEY MUSCLES USED IN WALKING

Strong arch muscles are essential to the health of the foot and protect foot ligaments from being overstretched. These muscles contribute to a strong push-off when walking. The gluteus medius muscles of the buttocks help give you a healthy gait with a soft landing, contribute to pelvic anteversion, and help externally rotate your legs. The tibialis anterior muscles help you create and support a kidney-bean shape in your feet and help externally rotate your knees.

STRENGTHENING THE ARCH MUSCLES

Achieving a kidney-bean shape in your foot substantially restores the inner arch, the most important of the three arches of the foot. The following exercises further strengthen it, as well as the outer and transverse arches.

INCH WORM

1. WHILE STANDING OR SITTING WELL, PLACE YOUR FEET INTO KIDNEY-BEAN SHAPE
2. RELEASE MOST OF THE WEIGHT FROM ONE FOOT
3. FIX THE TOES OF THE UNWEIGHTED TO THE FLOOR AND CONTRACT ALL THE ARCH MUSCLES IN THE BOTTOM OF THE FOOT (a)
Your objective is to shorten the foot into an arched shape, drawing the heel closer to the toes.
4. FIX THE HEEL TO THE FLOOR, RELEASE THE TOES AND RELAX ALL THE ARCH MUSCLES
Allow your foot to return to its longer length.
5. REACH FORWARD WITH THE TOES AND FIX THEM TO THE FLOOR IN THIS NEW POSITION (b)
Your toes should be slightly ahead of their starting position; they have "inched" forward.
6. REPEAT STEPS 1 - 4 SEVERAL TIMES (c, d) UNTIL YOUR FOOT HAS CREPT ABOUT 6 INCHES FORWARD

7. FIX THE HEEL TO THE FLOOR

You will now reverse the action to move your foot backwards.

8. RELEASE THE TOES FROM THE FLOOR WHILE CONTRACTING THE ARCH MUSCLES (e)

The toes draw back toward the heel and the foot shortens.

9. FIX THE TOES TO THE FLOOR AND RELEASE THE CONTRACTION OF THE ARCH MUSCLES (f)

This allows the heel to move backwards.

10. REPEAT STEPS 7 - 9 SEVERAL TIMES UNTIL YOUR FOOT RETURNS TO ITS STARTING POSITION (g,h)

It is common for beginners to contract their toes more than their arches. Try to maximize the contraction of your arches while minimizing the contraction of your toes. Over time you will improve your ability to isolate these movements.

11. REPEAT THIS COMPLETE SERIES WITH THE OTHER FOOT



a.



e.



b.



f.



c.



g.



d.



h.

EAT THE CLOTH

1. SPREAD A HAND TOWEL OR SMALL CLOTH ON THE FLOOR

Use a cloth with some texture, such as terry cloth. Avoid slippery fabrics like silk.

2. WHILE STANDING OR SITTING WELL, PLACE ONE FOOT ON THE EDGE OF THE CLOTH CLOSEST TO YOU (a)

3. USING JUST YOUR FOOT, TRY TO GATHER THE CLOTH UNDER THE FOOT (b)

This exercise strengthens the muscles that control the underside of your foot.

4. REPEAT WITH THE OTHER FOOT



a.



b.

GRAB THE BALL

1. PLACE A SMALL BALL ON THE FLOOR

It is useful to have various sized superballs for this exercise. Most students begin with a ball of one-half to one inch in diameter.

2. WHILE STANDING OR SITTING WELL, TRY TO GRAB THE BALL WITH ONE FOOT

Initially, you may only be able to grab a ball with your toes. Work to grab increasingly larger balls. As your arches grow stronger, you may be able to grab a ball under your transverse arch.

3. REPEAT THESE STEPS WITH THE OTHER FOOT

