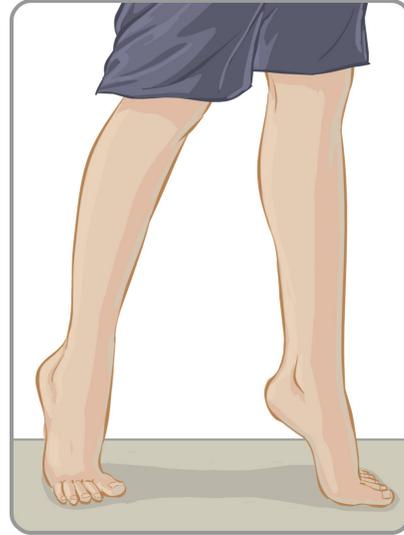


## Toe Walking, Idiopathic

Most children begin walking at 12 to 14 months with their feet flat on the ground. However, there are some children who begin walking on their tip toes instead. This pattern normally disappears within 3 to 6 months of learning how to walk. It almost always is completely gone by the end of the third year.

Idiopathic toe walking is when a child continues to walk on his tip toes beyond 3 years of age. He will often stand with his feet flat on the ground, but when walking or running will prefer to be on his toes. If your child does not outgrow tip toe walking by 3 years of age, take him to see a health care professional.



### Features of idiopathic toe walking

Although we do not really know why some children prefer to walk on their toes, we do know that idiopathic toe walkers:

- walk on tip toes on both sides
- are constantly balancing on their toes
- are physically able to keep up with other children their age
- walk with straight knees
- will often be able to stand with their feet flat on the ground
- often have a family history of toe walking

### Identify toe walking early to prevent muscle problems

Children who walk on their toes can develop tight calf muscles on the backs of their legs and have decreased movement of their ankles. In addition, the muscles on the front of their legs may become weak. If there is tightness and weakness, your child will have difficulty walking on his heels. Early identification of toe walking can help lead to the prevention of these muscle problems.

### Help your child with a home exercise program

If your child has idiopathic toe walking, a daily home exercise program can be very helpful. The goal is to stretch the calf muscles and strengthen the muscles on the front of the legs. This will help your child to be able to successfully walk with a heel-to-toe pattern.

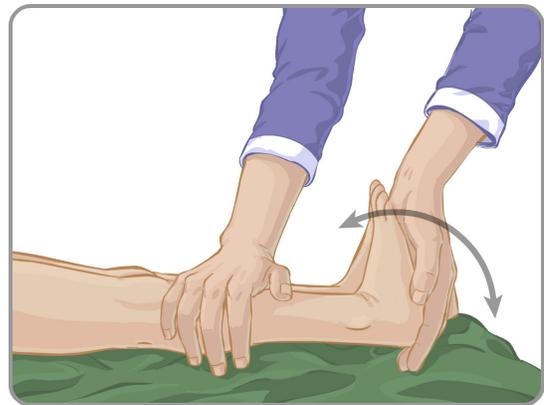
If your child's calf muscles are tight, or ankle motion is limited, you will be shown stretches to do at home with him. These stretches should be followed with activities to help him use his muscles in their new lengthened position.

These exercises will be necessary and beneficial as long as your child demonstrates a tip toe walking pattern. The exercises will vary with his age. The most important part of the exercise program is to remember to have fun with your child!

## Stretches and strengthening exercises for children under 6 years of age

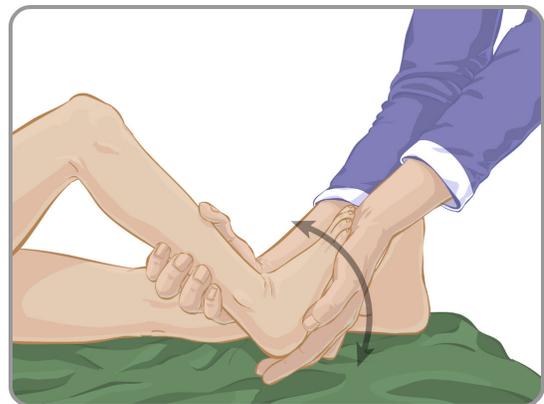
### Calf stretch

- Have your child lie on his back on a comfortable surface such as a firm bed.
- With his knee straight and leg supported on the bed, bring your child's foot upwards, toward his head, bending his ankle.
- Hold the stretch at the end of the movement (that is, as far as your child's range of motion will permit) for 15 to 30 seconds. This should not be painful for your child.
- Bring your child's foot back to a normal position. Repeat the exercise 10 times on each leg, daily.



### Achilles tendon stretch

- Have your child lie on his back on a comfortable surface such as a firm bed.
- With his knee bent, bring your child's foot upwards, toward his head, bending his ankle.
- Hold the stretch at the end of the movement (that is, as far as your child's range of motion will permit) for 15 to 30 seconds. This should not be painful for your child.
- Bring your child's foot back to a normal position. Repeat the exercise 10 times on each leg, daily.



## Sit to stand

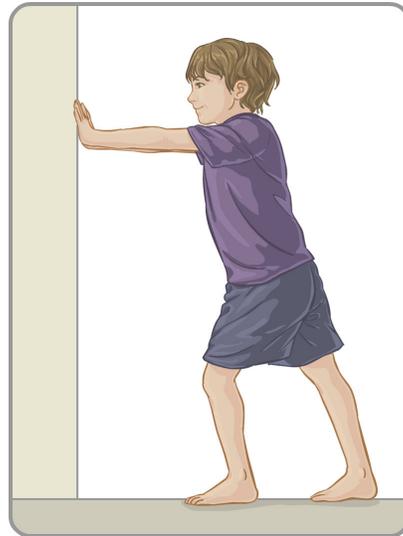
- Have your child sit on a children's sized chair or stool.
- Place your hands below his knees, providing a moderate, constant pressure downwards as a cue to
- keep his heels on the floor.
- Have your child practice standing up while keeping his heels on the ground.
- Make this exercise fun by playing a game of high five, blowing bubbles, reaching for objects, working in front of a mirror, or singing songs.



## Exercises suitable for children ages 6 years and up:

### Calf Stretch

- Have your child stand approximately two feet from a wall. Place both of his hands at shoulder height against the wall.
- With his right knee straight, have him step towards the wall with the left foot. He should lean in until a stretch is felt in the back of the right calf. Make sure he keeps the heel of the right foot on the ground.
- Hold the stretch for 15 to 30 seconds.
- Repeat the exercise 10 times on each leg, daily.



Other exercises include:

- Marching on the spot. Have your child bring his knees up high and then land with a flat foot.
- Walking uphill.
- Walking on uneven surfaces such as in a playground or sand.
- Walking on the heels only. Keep the toes off the ground at all times.
- Practicing squats. With feet flat on the floor, hip width apart, have your child slowly lower his body all the way to the floor by bending at his knees and hips but keeping his chest upright.

Squats



## Shoes for your child

Wearing shoes may not correct toe walking. However, appropriate foot wear can help your child bring his heels further down. When selecting shoes for your child, keep in mind the following criteria:

- Choose a high cut shoe with a wide sole which provides good foot support.
- The shoe should be rigid or firm, not flexible in the middle section.
- The back of the heel should be firm.

## Other treatments

Idiopathic toe walking in children is not a serious condition. It often resolves spontaneously and does not cause the child significant problems apart from the cosmetic appearance. Normally, your child will not need surgery. In addition to stretching and strengthening, treatments may include repeated casting of feet and ankles, bracing devices, or a combination of the two. More recently, the injection of Botulinum Toxin A (Botox) has been used to weaken the calf muscles, thus preventing tip toe walking. You can discuss these treatment options with your physician. It is important to understand that even though your child may achieve short-term improvement in muscle length and ankle range of motion, these treatments may not always guarantee a normal heel-to-toe walking pattern.