

Why is my child tiptoe walking all the time and can it be corrected?

Tommy is a 3 year-old who walks into The Kids Therapy Center waiting room on his tip toes. His mother is quite concerned. She reports that Tommy started walking at the expected time, but has always walked on his tiptoes. His mom reports their family thought it was cute in the beginning, but now that he will be entering pre- school, she is worried he may get teased. She also explains that Tommy frequently drags his feet and trips. This makes it difficult for him to keep up with his friends on the playground. Tommy's mom asks, "Is this normal? What causes this and can we do anything to help him?"

When a child walks on his tiptoes *once in a while* it should be considered typical behavior and does not warrant further evaluation. Sometimes toe walking can represent the child's natural curiosity for a different type of walking. Children may do it off and on just to experience something different. They frequently receive admiring looks from their family at their excellent coordination and skill. Little girls who are planning on being the next Sugar Plum Fairy are more likely to continue this type of walking.

In addition, there is another time when toe walking is considered normal. It is common for children to walk on their toes while taking their first steps between the ages of 10 to 18 months. However, if toe walking persists past this age, the child should be evaluated.

There are many reasons children walk on their toes. The most common are:

- *Poor flexibility of the muscles surrounding the ankles (heel cords)* can cause the child to be more comfortable on his or her toes. If your child has experienced a sudden and rapid growth spurt, the bones can grow more rapidly than the muscles causing tight or inflexible muscles.
- *Increased muscle tone* caused by a neurological or neuromuscular disorder can result in toe walking.
- *A poorly functioning vestibular system. (the system that gives the brain feedback about the position of the body in space and its motion.)* Children who have difficulty integrating the sensory input from their environment may walk on their toes. They may feel more stable this way.
- *Children with low muscle tone (hypotonia)* may feel the need to stabilize their body by walking on their toes. Since children with hypotonia often have joint laxity, they tense the ankle muscles in order to create stability, thus resulting in toe walking.
- *Idiopathic toe walking* (toe walking of unknown origin) is diagnosed when the child's toe walking is of unknown origin.

Once the root cause of toe walking is determined by a pediatrician or neurologist, an evaluation by a skilled pediatric physical therapist should take place. Depending on the cause of the toe walking each approach for treatment can be different, but some commonalities do exist. (excluding children with moderate to severe neurological diagnoses and neuromuscular diagnoses. The treatment approach is different for these children.) A rigorous stretching program performed during PT sessions and carried over in the home/ school environment should be implemented. Strengthening exercises that decrease muscular imbalance and facilitate the use of the postural muscles that flex the foot up should be performed. Proprioceptive exercises that retrain the brain's awareness

of where the body is in space are very useful in treating/ preventing toe walking. Teaching the child how to walk/run in a proper heel- toe progression is also imperative for success. Depending on the child's range of motion of the ankle joint the therapist may recommend the use of one or a combination of the following:

- Serial casting. This involves wearing a cast for 1 to 2 weeks that stretch the tight muscles and increase ankle motion. A series of casts are often required to attain optimal results.
- Braces or Ankle Foot Orthoses are worn during the day to increase the flexibility of the ankle and prevent toe walking
- Night splints are worn during sleeping hours and help stretch the muscles of the leg.

In conclusion, toe walking is a fairly common problem that when treated appropriately almost always resolves. However, it is crucial that the benign causes of toe walking are separated from the more serious causes and appropriate treatment is not delayed. As benign as idiopathic toe walking may seem, it can result in a less than optimal quality of life for some children. It can cause frequent tripping, delay of gross motor skills, poor body awareness and muscular imbalances that if left untreated, can become contractures. Please contact your pediatric physical therapist to evaluate your child for this condition.