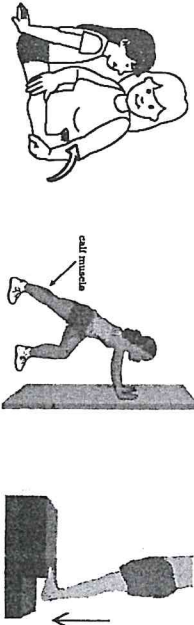


- Ankle weights.
- Squishy heel inserts
- Sometimes night-time bracing with plastic foot-ankle splints may be helpful.
- Taping
- Carbon-fibre insoles.

b) For pre-school and older children with Achilles tendon contractures/shortening, treatment may include:-

- Stretching. NB This is often long-term.
- Strengthening.
- Walking re-education ie with heels down.
- Sensory integration strategies.
- Orthotics – eg insoles, or night-time plastic splints worn on the feet and ankles to maintain the stretch/flexibility of the Achilles tendons. Occasionally they are also worn during the day.
- Serial casting – This involves a series of plaster casts to stretch your child's Achilles tendons. (Please see separate leaflet for details).
- Orthopaedic surgery – This involves a surgical procedure to lengthen the Achilles tendon. This is done only in children over the age of 4 to 5 years to whom other treatment interventions have been unsuccessful in treating the Achilles tendons, and if the contracture is quite significant.

Ideas of stretches



Summary

- **Research suggests that non-surgical treatment may have short-term benefits but not have a long lasting effect.**
- Children may continue to walk on their toes into adolescence.
- Often with the increased weight in adolescence the toe-walking resolves spontaneously.
- Sometimes toe-walking may continue into adulthood when adults tend to have a 'bouncy' walk rather than walking on their toes.



VRANCH HOUSE THERAPY DEPARTMENT IDIOPATHIC TOE WALKING INFORMATION LEAFLET

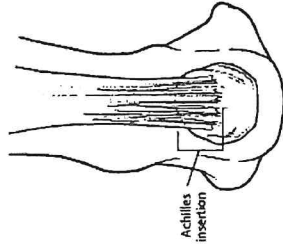


This leaflet has been provided by the Vranach House Therapy Team.
If you have any questions or concerns please call us on 01392 468558

IDIOPATHIC TOE WALKING

What is idiopathic toe walking?

- Toe walking in toddlers is common but by 3 years of age children should walk with a heel-toe pattern. (Please seek GP or Physio advice if your child continues to toe-walk after 3 years of age to exclude other conditions).
- 'Idiopathic' (ie 'of unknown cause') toe walking is when children persist in walking up on their toes / balls of their feet after 3 years of age for no known reason.
- It is sometimes referred to as 'habitual' or 'behavioural'.
- It occurs in otherwise healthy and typically developing children.
- It always occurs in both feet.
- Over time toe-walking may lead to tightness/shortening in the Achilles tendons (ie heel cords).



What are the signs of toe-walking?

- Walking on tiptoes is the main sign, but occasionally a child may also:-
- Suffer with discomfort or pain.
- Be more wobbly on their feet.
- Have a tendency to walk or run fast.
- Fall over more frequently.
- Be unable to squat keeping the sole of their foot on the floor.
- NB - Some children with idiopathic toe walking are able to walk with their feet flat when asked to do so. When these children wear shoes they might not walk on their toes. Most children who walk on their toes can stand with their feet on the ground although they may lean forwards. Their toe walking is often exaggerated when they walk bare-footed or when they walk on surfaces that have increased tactile sensations (eg carpet, cold tiles, grass). These children do not typically have tightness in their Achilles' tendons early on.

What are the possible underlying reasons for idiopathic toe walking?

- Short calf muscles (lower leg muscles) causing the child to lift their heels up when walking to make it more comfortable as a result of persistent toe walking.
- Very mobile joints with weak trunk muscles/core stability: toe-walking may make the foot more stable.
- Because they like the sensation of being on their toes, or dislike the sensation of their feet touching the floor. (This can be associated with autistic spectrum disorders if other signs/symptoms are present).
- Altered proprioceptive processing (ie. sensing the body's position in space).
- The calf muscles may be contracting out of phase/at the wrong time.
- Family history ie. siblings or parents may have toe-walked.

What is the treatment?

This depends on the specific symptoms and problems that your child has. Research into different treatments has shown there is no definite treatment to break the toe walking habit. Often the toe-walking recurs even with treatment. Some Orthopaedic Consultants feel that therapy is not beneficial and that idiopathic toe-walking either resolves in time on its own or, in cases where there are significant muscle contractures, requires surgery.

Usually toe-walking resolves in time on its own with increased weight when the child reaches adolescence.

Treatment options can include:-

a) For young children without Achilles tendon contractures/shortening:-

- Watching and waiting.
- Stretches to lengthen tight calf and/or hamstring muscles and activities to help stretch the calf muscle / keep heels down eg walk on heels, walk along line keeping heels down and feet flat.
- Activities and exercises to strengthen the calf, hamstring and/or trunk muscles and to increase active control.
- Wearing of supportive, well-fastened footwear. Boots that come up over the ankle are often good.
- Encouraging your child to walk slowly and prompt your child as an exercise to walk with their feet flat, while remembering that normally walking is not a conscious activity.