**TOE WALKING**

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| **Toe walking can be caused by a variety of factors** |
| * Cerebral Palsy   + More difficult to treat   + Serial casting is more likely   + Can recur during growth * Autism or Pervasive Developmental Disorder (PDD) * Paralytic Muscle Disease   + Caution: Prolonged serial casting can weaken muscles and lead to a decrease in physical ability and loss of ability to walk   + Use regular stretching and orthosis together   + Muscular dystrophy     - Be careful not to overstretch and damage the muscle   + Charcot Marie Tooth * Neuromuscular Disorder * Tethered Cord Syndrome   + Spina Bifida * Clubfoot * Limb length discrepancy   + Limb lengthening can equalize limb length * Toe walking with only one foot * Sudden onset   --------------------------------------------------------------------------------------------------------------------------   * When a child does not fit into one of the above categories then the diagnosis of **Idiopathic Toe Walking** (ITW) may be used. It is not known why the child walks on their toes. There is no known syndrome, genetic condition, or pathology. * Toe walk with both feet * Habitual toe walking * Ages 2-21 years * Goals:   + PROM of ankle dorsiflexion of 10 degrees or more   + Heel strike 75% or more during gait activities   + If no other orthopedic or neurological condition exists, then the goal is to attain age appropriate gross motor skills |
| **Treatment options** |
| * Conservative - Success is related to the severity of muscle contracture of the calf muscle and the amount of time the child toe walks.   + Observation since some children outgrow their toe walking   + Home exercise program (HEP) from a Physical Therapist   + Physical Therapy (PT) for direct treatment     - School PT - If toe walking functionally affects a student’s ability to walk or navigate stairs in school then school PT may be appropriate     - Outpatient PT - If toe walking does not functionally affect a student’s ability to walk or navigate stairs in school then outpatient/medical PT may be appropriate.   + Night splints   + Orthotics (braces) * More aggressive   + Serial Casting (one cast after another for a period of time)   + Botox (muscle relaxant) with or without serial casting   + Phenol (nerve block)   + Operation to correct foot position - last option |