**RTI Tier 1-Gross Motor Concerns/Interventions**

**Toe Walking**: This type of walking pattern is observed when a child walks on their toes with their heels lifted. It may or may not be consistent.

Interventions:

* Calf Stretching: Hold all stretches for as long as possible and keep them gentle. A 30-second gentle stretch is much better than a 10-second intense one. Multiple stretches per session, as well as multiple sessions per day will lead to optimal muscle lengthening. You may need to address hamstring tightness as well, with traditional stretches.

1-caregiver stretch- With child long sitting or laying on back, grasp heel with knees straight and use your forearm to push ankle toward head. You may also use your hand to push the foot, but make sure you have full contact with the bottom of the foot.

2-self stretching- A) stair stretch- standing on a step, hang one heel off the step and bend the other leg so that all the weight is on the straight leg, pushing the heel off the step and forcing the foot upward.

B) runners stretch- Leaning forward with hands on a wall, keep one leg forward with knee bent and force the other knee straight behind you, trying to keep the heel flat on the ground.

C) incline board stretch- Stand on a wedge block with knee straight to force heel down and toes up.

Activities:

* Backward walking- use large steps and get good toe-heel pattern
* Heel walking- stay on heels and don’t let toes touch the floor
* Heel-toe walking- exaggerate perfect walking
* Walking up an incline- keep feet flat on surface
* Scooter board in sitting- use feet to pull forward, remind to dig heels into floor for traction
* Duck walking- often very difficult for toe walkers
* Be an annoyance- constantly remind the child to walk flat

Equipment:

* high-topped sneakers- often the extra height makes toe walking less comfortable/more difficult
* hard-soled shoes/sneakers/boots- also make toe walking difficult, shoes can be tested for proper support by pushing inward on the shoe from the front and back to see where the shoe bends. Bending at the toe box/ball of your foot is good. Bending at the arch denotes improper support.
* squeaking soccer trainers- elastic toys that go on a soccer player’s toes to teach proper kicking surface can be put on a toe walker’s heel to squeak when walking with heel down.
* night splints- can be worn during sleep to give continuous passive stretch
* orthotics- ultimately, professional bracing may be necessary. Low SMOs prevent flat foot/low arch and push into the Achilles tendon with toe walking. Full AFOs up to the knee force proper ankle positioning, but don’t allow any push off.

**Decreased Balance Skills**: in a school setting, difficulties with balance may be observed when walking in the classroom, hallways, playing on the playground, in PE class, and walking up/down stairs.

Instructional tips:

* Stairs: for safety, instruct a step-to-step pattern, then progress to an alternating step pattern. Always encourage holding the railing for safety as well.
* Classroom: Limit clutter on floors, clear a wide path for students to walk around/between desks, and to/from doors.
* Playground: supervise and use judgment for which equipment is appropriate. This is a great place to address balance skills, of course maintaining safety first.
* PE class: break activities down as much as possible, modify activities as appropriate, and refer to adaptive PE when needed

Interventions:

* Involve children in sports that address dynamic balance (soccer, basketball, etc)
* Use balance beam, balance cushion, and other equipment, with supervision
* Stand on 1-leg, tandem balance or tandem walk
* Trampoline jumping, 1-leg jumping, throwing/catching a ball while jumping, jumping with legs out/in, etc.

**Decreased Ball Skills:** development of ball skills includes higher coordination, strength, hand-eye coordination, and hand-eye coordination. It encourages children to cross midline. Not every child is going to be an athlete, however, there are basic skills needed to be functional with a ball.

Instructional tips:

* By the age of 6, most aspects of ball skills should be developing, including alternately dribbling a ball
* Larger, lighter balls are easier to catch and throw (many children are afraid of catching)
* Gertie balls are helpful

Activities:

* Encourage ball skills during recess
* Coordinate with child’s PE teacher
* Encourage parents to play ball with children at home
* Crumble up paper and throw in trashcan
* Play circle games like hot potato
* toss beanbag to child when you want him to answer a question, then have him toss it back

**Decreased Body Awareness:** decreased ability to know where one’s body is in space. This may be an issue if the child is falling out of his/her chair, bumping into walls or other things or people, etc. This can lead to decreased fine and gross motor planning.

Instructional tips:

* activities that promote body awareness can be done with the whole class, as a “warm-up” for the day or lesson

Activities:

* jumping jacks or other jumping activities
* animal imitations or animal walking
* push-ups at desk or wall
* carry heavy objects like a crate of books
* washing chalkboard or desks
* push/pull activities
* stacking chairs
* use weighted vests or lap belts
* encourage climbing on playground equipment and hopscotch

**Difficulty Sitting Still:** difficulty staying seated and attending to task during lessons. These strategies are intended to increase proprioceptive input, thus providing a calming and organizing effect on the child’s nervous system.

Instructional tips:

* frequent stretch/movement breaks throughout the day
* allow non-disruptive movement at the child’s desk
* decrease visual distractions and remove unnecessary visual stimuli
* use a soft voice and limit excess auditory stimuli
* provide the student with appropriate seating arrangements (close to teacher, away from distracting students, etc.)
* have areas in the classroom where children can work in various positions such as laying on stomach, standing or kneeling at easel, sitting backwards in their chair, etc.

Activities:

* provide “fidget” toys: putty, stress-ball, “chew-lery”, Velcro, etc.
* tie theraband/tube to chair legs, to allow student to kick or push with their feet
* use weighted blankets, lap belts, lap strips, weighted stuffed toys, etc.
* utilize a move and sit cushion for the student’s chair, or have student sit on therapy ball for work
* provide opportunities for heavy work
* have student wear their backpack while sitting in chair

**Difficulty Stair Climbing:** requires a utilization of a number of different skills such as: strength, motor planning, coordination, timing, proprioception, visual perception, and vestibular functioning

Instructional tips:

* encourage a step-to-step pattern (one foot at a time) when ascending and descending
* encourage holding onto hand rails
* work on descending stairs first, once that is mastered, then work on ascending
* be sure the child does not have anything in their hands

Activities:

* play games to develop gait patterns such as: walking on heels/toes, walking backwards and sideways
* play games involving balance: hopping on 1 foot, marching, balancing on 1-leg
* encourage the child to use a variety of equipment on the playground

**“W”-Sitting:** this is a sitting posture in which his/her bottom is between their legs on the floor, and their feet are pointing out to the sides. It is NOT a problem if a child sits on their heels, with the tops of their feet on the floor.

Instructional tips:

* encourage tailor sitting ie “criss-cross apple sauce”
* if that is not comfortable, the child may sit on their heels
* consistently remind the child to change their position if they revert back to w-sit

Activities:

* have child in side sitting position and have them reach for toys to encourage rotation
* yoga poses or stretching activities such as “Yoga-rilla” are helpful
* climbing/squatting activities to strengthen hip musculature
* therapy ball activities to strengthen core and facilitate rotation

**Foot Rotations:** Feet turning in or turning out. Usually results from rotation in the hip. May get better or worse with running.

Instructional tips:

* encourage keeping feet straight/toes forward with walking

Activities:

* yoga poses or stretching activities such as “Yoga-rilla” are helpful
* climbing/squatting activities to strengthen hip musculature
* balance beam or walking on a line with feet straight.
* If toeing in, kick a ball sideways/out to the side
* If toeing out, have them kick ball inward/crossing legs