Piecing It Together

MOSAIC Rehabilitation

What's the Difference Between Speech and Language?

We often hear the phrases, "Your child needs speech," or "My child receives speech therapy," but it's not as common to hear, "Your child needs language therapy," or "My child receives speech and language therapy." This has led to a lot of confusion for individuals who are not speech-language pathologists. Did you know *speech* and *language* are actually two completely different things?

So then what is speech? Speech includes: articulation (the formulation of sounds using the tongue, teeth and lips), voice, and fluency. When a child has trouble making his sounds correctly, such as saying "tat" for "cat" or has problems with his voice (hoarseness) or fluency (stuttering) he would have a *speech* disorder. This is separate from a child's ability to organize thoughts using the correct word or combination of words.

Language is the ability to understand others in order to share thoughts and ideas completely and clearly. It does not have to do with how sounds are made. Language can be separated into two parts: receptive language and expressive language.

Receptive language is a child's ability to understand language, known as "input." It includes both verbal (words and sentences) and nonverbal (gestures) language. Receptive language includes things such as a child's ability to understand a directive as a command and that a question is a question and requires an answer. Receptive language also includes a child's ability to understand concepts such as "in" or "big" as well as their ability to correctly interpret complex grammatical forms. For example, understanding that in the phrase, "The baby was kissed by the lady," it was the lady who did the kissing, not the baby. In typical development, children begin to develop some receptive understanding before they begin to express themselves.

Expressive language is a child's language "output." It includes a child's ability to use words and grammar rules that dictate how words are combined to make phrases, sentences, and paragraphs. Expressive language includes a child's use of signs, gestures, sentences, etc.

An easy way to remember the difference between receptive and expressive language is receptive language is how a child *understands* language and expressive language is how a child *uses* language. When a child has difficulty understanding others or sharing their thoughts clearly and completely, he has a language disorder.

Language disorders and *speech disorders* can occur together or by themselves; therefore, your child may only receive therapy to work on improving receptive and/or expressive language or they may receive therapy to work on improving articulation (speech). They may also receive therapy to work on improving expressive and/or receptive language AND articulation (speech).

Gross Motor Milestone Series: Jumping

By 24 months of age, 50% of children can jump with both feet off the ground. By 27 months of age, 75% of children can jump with both feet off the ground. Jumping helps to develop leg strength and balance. It requires coordination of upper and lower extremity movements, is used during childhood games, and plays a large role in sports such as basketball and volleyball. Jumping is a building block for more complex movements, specialized skills, and general physical activity.

Children who lack basic skills, including jumping, often show lower levels of physical fitness as they get older. Missing skills can make participation in physical activities more difficult and cause kids to avoid them, which can also lead to social isolation from their peers.

While the initiation of activities such as jumping happen spontaneously, these skills need to be practiced in order to be mastered. The most important thing that you can do as a parent to help promote jumping is to give your children the time, space, and opportunity to move.

Here are some things you can do to encourage jumping:

- Make sure your child is able to step over obstacles without support and without falling.
- Work on bouncing on soft surfaces, such as a trampoline or a pillow on the floor.
- Holding both of your child's hands, help them jump forward or down a few inches. Progress to 1 hand hold assist and then to 1 finger assist and then to no assist.
- Encourage jumping with both feet leaving the ground at the same time.

During the jump, your child should:

- Keep their eyes focused forward or upward throughout the jump
- Crouch with knees bent and arms behind the body
- Use a forceful forward and upward swing of the arms
- Straighten legs in the air
- Land on the balls of the feet with knees bent to absorb the shock from the landing
- Control the landing with no more than one step in any direction

Activities to practice jumping

- Cut out shapes, bugs, or letters and practice jumping from shape to shape
- Blow bubbles and have your child jump up to pop them
- Place various objects on the ground for your child to jump over, such as a jump rope, hula hoop, garden hose, sticks, toys, etc.
- Suspend a ball in the air and have the child jump up and touch it
- Hopscotch, trampoline, jump rope
- Jump over (or in) puddles

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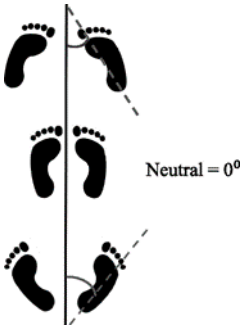
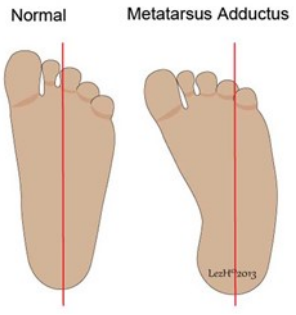
Feet!

Children's feet come in all shapes, sizes, and positions. It is difficult to know what is typical and what is not and when to refer to a physical therapist or when to get orthotics. Common physical therapy (PT) referrals include: "toeing in", "over pronation" and "toe walking". Interestingly, all of these issues can be normal depending on the age of the child and their bony structure.

Toeing-In/Out, known as the Foot Progression Angle (FPA) or "angle of gait" is between -3 and 20 degrees in most children and adults. Early walkers may show more toe-in (pigeon toed) initially that resolves as their feet mature and become less like chubby baby feet and more defined like adult feet.





Feet!...*continued from page 2*

Toeing in can come from the forefoot curving in and is called metatarsus adductus. Toeing in can come from torsion (twisting) of the long leg bones called "tibial torsion" or "femoral torsion" or from the hip and how the long upper leg bone (femur) sits in the hip socket. These structural issues often resolve over time in a typically developing child. "W" sitting can cause toeing in and permanent knee and hip misalignment and should be avoided. Children with abnormal muscle tone (high or low) should be referred to PT. If a child is tripping and falling from toeing in, a PT referral is indicated. Toeing out (duck feet) is often related to tight hip musculature and should be assessed by a PT.

Pronation, often called "over pronation" or "flat feet" is a combination of foot and ankle motion that occurs in a typical gait pattern during running or walking. Everyone pronates! Pronation is often confused with "fallen arches" or flat feet that are mostly soft tissue related not bony alignment issues. Pronation or flat feet become a problem when there are abnormalities in bony alignment and/or lower extremity pain or discomfort. "Flexible flat feet" are often not treated unless symptomatic. Having a gait analysis with video that can be viewed frame by frame is important for determining the mechanics of a child's gait pattern with walking and running. A physical therapist can analyze one's gait at any age and help determine if orthotics, PT treatment, or supportive shoes are needed.

Toe Walking may occur when children start walking around 1 year of age but should never continue past the first few weeks to months of walking. Toe walking may be due to high muscle tone in a child's calves, sensory or vestibular issues, or from retention of primitive or infant reflexes. Physical therapy is indicated if your child continues to toe walk past the first few months of learning to walk. It rarely resolves on its own and is much easier to treat ***when the child is younger*** before habits are formed and calves/heel cords begin to tighten. Once a lack of range of motion occurs (inability to bend ankle bringing toes toward shins) there are now two issues to address: walking on toes and muscle tightness which could lead to contracture. Extreme cases will lead to bracing/ankle foot orthotics and eventually to surgery to release the Achilles tendon.

Jumping...*continued from page 2*

A physical therapy screen or evaluation might be beneficial if your child is 2½ and still isn't jumping or is jumping and showing any of the following,:

Asymmetric jumping: A typically developing child does not show side preference until preschool age. If you notice your child always pushing off and landing with one side, drags one leg or holds it stiffly, or if one side is not helping in the initiation of jumping, there is probably an underlying cause, such as weakness or pain.

No power during push-off: If your child prepares to jump by initiating a squat but then her feet barely leave the floor, her leg muscles may not be strong enough yet to fully propel her weight forwards or upwards. He or she might have trouble planning how to initiate and complete the jump.

Frequent falls: If your child crumbles to the floor or if their knees buckle every time they land from a jump, or if your child falls on purpose when trying to jump, it could be a sign that there is an underlying impairment that is impacting ability to maintain balance during jumping.

Increased anxiety or behavioral resistance to the task: Does your child hesitate, ask to be picked up, or ask for a hand any time he or she is encouraged to jump down or over something on the ground? Do they throw a tantrum or flop to the ground if you don't help? These are signs that indicate jumping is scary or too hard for them.

Meet Our New PT

Elly Bruursema, a past student at Mosaic, is excited to return to our clinic after working in an orthopedic outpatient physical therapy clinic in Kalispell MT. She enjoys working with women's health populations, including pre and post partum care, pelvic pain, stress/urge incontinence and general pelvic floor dysfunction. Elly, a Montana native, grew up in the small town of Reed Point. She attended Carroll College (Go Saints!) in Helena and earned her B.A. in Community Health. She then went on to earn her Doctorate of Physical Therapy from the University of Montana. She has never lived anywhere but Montana and was lucky enough to find a Montana boy who shared her same love of this beautiful state. Elly enjoys hiking with her soon-to-be husband and their lab, Baja, playing basketball, running, going to Pure Barre classes, and spending time with her wonderful family.

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CREATING A DIFFERENCE

Sleep and Your Child

"The trouble with a child who is missing sleep is that her behavior is confusing. It's hard to believe that the real culprit behind her temper tantrum is lack of sleep when bedtime is one of your biggest battles, or she loses it simply because you dropped her water bottle. And when she can't even dress herself, even though she did it yesterday, it feels more like a plot against you than an issue of fatigue. How can a child who is supposedly so tired somehow garner the energy to veer off her path just far enough to bop her brother in the head, and jump on her bed laughing hysterically when you try to get her down for the night?"

If your child is misbehaving, it's very likely that he or she is crying for sleep. Sleep-deprived children can include babies who are sleeping less than 14 - 16 hours in a 24-hour period; toddlers sleeping less than 13 hours, preschoolers less than 12 hours, school-age children less than 10 hours, or adolescents sleeping less than 9.25 hours a night.

"And until your child gets more sleep, no punishment, no discipline strategy will stop the challenging behaviors. Sound sleep is a key to good behavior. The problem is that children rarely tell you that they are tired. Instead, they get wired, which escalates into a frenzy of energy. It's as though their body is out of control -- and it is."

Signs of sleep deprivation include:

- Loses it over little things
- Easily frustrated or irritated
- Upset by changes
- Easily overwhelmed
- Clumsy
- Has to be woken in the morning
- Frenzied, hitting and yelling
- Can't focus and pay attention, doesn't listen
- Impatient and bossy, less flexible

How to tell if your child is getting enough sleep:

- Wakes up on their own
- Listens
- Stays focused on tasks
- Is able to wait their turn
- Falls asleep easily at night
- Can deal with changes in routine or surprises well

What you can do:

- Establish regular wake time (within 30-60 minutes 7 days of the week)
- Exposure to morning light (before exposure to screens)
- Establish a regular breakfast time
- Emphasize exercise
- Protect nap times (for infants this can be within 45 minutes of waking up! For toddlers it can be 1.5-2 hours after waking and for preschoolers it is 5-6 hours after waking)
- Serve snack times and meal times on a regular schedule with the same bed time each night.
- Feed your child 6 times per day (about every 3 hours) providing a balance of proteins and carbs with an emphasis on a protein boost at bedtime

All information is provided courtesy of Mary Sheedy Kurcinka, a parenting educator located here in our valley and author of several books including **Sleepless in America: Is Your Child Misbehaving...or Missing Sleep?** Mary can be reached at parentchildhelp.com, on Facebook at Mary Sheedy Kurcinka, and at kurcinka@parentchildhelp.com. She provides classes locally and is available for in-home consultations to help solve your sleeping difficulties.

Group By Age	Recommended Sleep In a 24 hour Period
Infants (0-11 Months)	14-18 Hours
Toddlers (1-2 Years)	13-14 Hours
Preschoolers (3-5 Years)	11-13 Hours
School Age (6-13 Years)	10-11 Hours
Teen (14-17 Years)	9.25-10 Hours
Adult (26-64 Years)	8.25 Hours

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