



*Pediatric Development
Center*

Newsletter May 2008

We provide occupational therapy evaluation, treatment and consultation for children with developmental delays, autism/Asperger, cerebral palsy, Down's syndrome, sensory processing disorders, attention, behavioral concerns, handwriting, and other areas of weakness.

361 US Route One, Falmouth
(207) 781-4830

Parent Support Group:

We want to support parents in any way we can and would like to have a monthly meeting to discuss your issues. Please call the office to let us know when would be good for you and we will put together a meeting. 781-4830

Good Books:

Starting Sensory Integration Therapy:
Fun Activities That Won't Destroy
Your Home or Classroom by *Bonnie
Arnwine*

The Everything Parent's Guide to
Sensory Integration Disorder: Get the
Right Diagnosis, Understand
Treatments, and Advocate for Your
Child (Everything: Parenting and
Family) by *Terri Mauro and Sharon
Cermak*

**Physical Activities for Improving
Children's Learning and Behavior**
by *Billye Cheatum and Allison*

Hammond the following information
is from this book

**Asymmetrical Tonic Neck
Reflex**

The ATNR reflex is found in the
typically developing child from two
through 4 months. It is noted when

the head is turned to one side, which
acts on receptors in the neck. This
causes arm and leg on the same side as
the turned face to straighten, or
extend, and the arm and leg on the
back side of the head to bend, or flex.
In an infant you can seek the
alternating pattern of flexing and
extending occur as the head turns, and
this becomes the foundation of the
movement needed for crawling,
creeping, walking and running. If this
reflex persists after 4 months, it can
likely interfere with the child's ability
to use the two hands together to do an
activity such as catching a ball, or
from using one hand to throw a ball.
It prevents the arm from bending at
the elbow in preparation for throwing,
while at the same time looking at the
ball.



In older children, the residual ATNR
may interfere with classroom activities
such as writing, in that when looking
at the pencil there is slight extension
of the arm. When looking away there
is then flexion, resulting in a back and
forth action of the pencil, resulting in
poor penmanship. To compensate for
this, children tend to look away from
their writing and look at the pencil
only out of the corner of their eyes.
Often children attempt to stabilize
their head in a neutral position by
holding their head with the opposite
hand while writing.

Activities to Inhibit the

ATNR: Activities which will break
up the ATNR place the child in a
position where he must turn his head
in one direction. Without the head
turning to face front, he has to bring
the arm on the face side toward the
head, and extend the opposite arm.

Lazy Bubble Blowing: for 3
years and up. Place bubble solution
in a shallow pan to the right or left of
the child, near the wall. Hold an 8-
10" diameter hoop near the child's
face, on the side where the solution is
placed. Have the child look toward
the solution, dip the wand into the
solution, and then blow bubbles
through the hoop.

Passing Pennies Down the

Line: group play for 4 years
and older. Place 10-20 pennies or

buttons on a paper plate. Children lay
on their back, side by side and an arms
length apart. Place pennies on plate
by the first child's right side, an empty
plate between each of the next
children, and one after the last person.
Each child may look only at the paper
plate to their right. When the activity
is repeated they will all look left. On
"Go!" the first person picks up one
penny, passes it into his other hand
and then onto the paper plate between
him and the next team member –
without turning his head to the left.
That child then repeats the process,
passing the penny to the next plate to
the left. This continues until all
pennies are on the last plate. This can
be timed, and then done again to
improve their record.

Side-Lying Ball Toss: for 4
years and older. Several bean bags or
tennis balls and a bucket are needed.

The child lies on his back with a
bucket placed a few feet away from
his right or left side. Have the child
toss the bean bags or balls into the
bucket. The residual ATNR makes it
difficult for the child to bend their
elbow to initiate the toss, tending to
either look away, use the whole arm to
toss, or try to use only wrist action.
Remind him to bend his elbow.

**Apple-Tucked-Under-the-
Chin Crawl:** five years and up.

Mark the start and finish lines and
have enough apples or balls for each
child to have one. Children get into
the crawling position on hands and
knees, holding an apple between their
chin and shoulder, and practice
crawling in this position. This can be
done as a relay race or timed event to
have them improve their own time. If
the child has an ATNR, it may cause
the arm and leg on the skull side to
collapse when the head is turned to
hold the ball.

One-Sided Wall Push Ups:

Ages 6 years and up. Standing
sideways to the wall, extend the arm
closest to the wall and lean on that
hand, with the other hand on the hip.
Looking away from the wall, proceed
to doing push-ups by bending and
straightening the arm touching the
wall, count how many are done. Do it
for the other side. Also, stand further
away, lean on the arm, looking away
and see how long they can hold the
position.

Body Awareness

There are several different terms which suggest body awareness: body image, body scheme, body concept, etc. There are then higher levels of awareness which are developed through movement patterns, such as laterality and directionality.

Body image is related more to emotions, and how the child feels about themselves. These internal feelings begin by the way a child is treated, and is later enhanced as they experience success in moving and controlling their bodies in the environment. Problems with body image can first be noted with their figure drawings or verbalizations. Positive verbal support can enhance body image, and can be provided by parents and teachers. Good experiences in physical activities enhance body image.

Activity to improve body image:

Trampoline jumping for children 3 years and older. This can be done on a mattress, mini trampoline or large trampoline. Allow the child to be creative with their jumping and play music when jumping. Encourage them to jump in a circle, flap arms like a bird, clap hands, hop on one foot, jumping jacks, knee drop, seat drop, toss ball back and forth, etc.



Body Concept relates to knowledge of the body parts, and begins about 9 months of age as they learn to identify their nose and eyes, and by 18 months knows most parts. They first learn parts on themselves and then on others. By age 7 years they know most of the minor parts, such as wrist, ankle and shins, and by 9 years can identify all parts. Identification of

body parts usually follows a head-to-toe and center-to-outside progression. Research has found children who can identify more body parts tend to have more verbal interaction with adults during dressing and bathing as well as games which identify body parts. It has been found that children with average and above-average learning ability were more successful in identifying body parts as compared to those with learning disabilities.

You can teach body concept in many ways, the easiest way being referring to particular body parts when talking to or dressing a child. Such as "use your right hand to hold the pencil", "hit the ball with your left hand", "get the cup in the drawer on the right", "put the sticker on your elbow", etc. There are lots of games and songs involving body parts, such as "Hokey Pokey" or "What a Miracle" (by Hap Palmer).

Activity for Body

Concept: Punch ball Soccer Drills. 4 years and older. Need one punch ball without rubber band attached, and can be done alone or with others. The object is to keep the punch ball airborne without using the hands. Call out body parts for the child to use to tap the ball, such as, foot, elbow, head, knee, shoulder, etc. Make it more difficult by adding right or left, or number of times to tap the ball with the body part.

Body Schema relates to the internal, or kinesthetic, awareness of where the body parts are in relation to each other. Body schema depends on sensory awareness through activities involving the muscles, joints, skin and soft tissues. Problems with body schema are demonstrated by a child's movement and activity, as noted by incoordination. This then impacts play with peers and sports, as they may not be able to figure out how to coordinate their body for the activities. Improving

body schema involves using movement; however, it is important to find the cause of the problems, which may be as simple as poor knowledge of body parts, or as complex as motor planning. Children must figure out how to make their bodies move in new ways in activities intended to improve body schema. They must be able to determine which body parts are needed and how they can use the parts effectively as they move through, around, over, and under equipment.

Activities for Body

Shema: Follow the Leader, for ages 3 and up. Choose a leader and have the other children line up behind. The leader does a movement and the others copy it. Have the movements involve various locomotor skills, such as hopping, skipping, jumping, etc., and do them with a variety of levels, directions, and speeds. Do some forward and some backwards, some fast and some in slow motion. After 3 or 4 movements, change leaders.

Under the Parachute: for ages 5 and up. Use a parachute or large sheet. Have the children find partners and assign each set of partners a number. Everyone stands around the edge of the parachute and directly across from their partner. When everyone is ready, together they lift the parachute. As the parachute goes up, partners #1 run under the parachute and switch places with each other before the parachute lowers. Continue lifting and lowering the parachute as each set of partners is given a chance to switch places. The, start from partners #1 again, and this time continue until everyone is back where they started.

The children are learning movement of how hard to pull on the parachute to lift it, when to relax muscles so the parachute will come back down, timing to move across under the parachute, how much to bend to move under it,

how fast to move and how to turn their bodies.



Laterality is the internal awareness that there are two sides of the body and that these sides are different, and begins to appear in the fourth year. This allows them to do different things with their hands and is very important for academic success. It begins with the learning of right and left, and impacts concepts of reading and writing from left to right.