

# "CORE" tastic Kids Newsletter

### Attention and Focus

Approximately 99% of students with attention deficit disorders (ADD) or attention deficit with hyperactivity (ADHD) disorders experience serious weaknesses in the area of auditory memory. However, there are also students who do not have ADD or ADHD who experience weaknesses in auditory memory. Those who have difficulties with auditory memory experience difficulty attending to verbal input, processing information, and storing it in their minds for immediate or long term recall.

Individuals with listening and attention difficulties are generally experiencing one of two problems:

1. They cannot screen out what is unimportant from what they hear so they listen to everything.

2. They may not be very skillful at controlling their attention and therefore miss large chunks of information.

These activities may help improve your child's listening and attention skills:

Sound bingo -Listen to sounds on a CD and cover the correct picture.

Sound walk - Listen for different sounds heard on a walk, then use these to paint a picture or compose a group poem.

Simon says - Listen carefully for specific instructions and then do the actions.

Share reading - Use big books to help focus attention on the visual cues.

Story CDs-Listen to story CDs with activities related to the text.

Who am I? - Perform miming activities.

Messages - Ask the pupils to recall simple messages.

Chinese whispers - Pass a message around the circle. The last pupil to receive the message has to perform the action.

Listen and color - Color a picture by listening to the instructions.

### Exercise of the Month

Exercise of the Month: April is a great start to Spring. Get ready to be active by doing bilateral coordination exercises. The cross crawl is a good exercise to start with. The child lies on their stomach with their right ear on the floor. Bend the left arm at the elbow and touch your nose with your left hand. The right knee is bent at a right angle with the right hand touching it. Leave the left leg straight. Once in position, call out switch and the child will turn their head in the opposite direction and touch their nose with right hand, and switch their leg position as well. Do repeatedly until the child is capable of switching without error. The cross crawl also strengthens your vestibular system with the head movements, and builds motor planning skills.



Where performance meets potential.

1224 B Alice Drive Sumter, SC 29150 Phone: 803-469-CORE (2673) E-mail: core@tuomey.com www.coreinstitutesc.com

> Volume 3. Issue 4 April 1, 2010

### Calendar of Events:

April 4th Easter

April 5-9 Spring Break (no group classes)

April 15th Tax Day

April 21st Administrative Professionals Day





\*\*\*Become a fan of The Core Institute on Facebook at www.facebook.com/The-Core-Institute\*\*\*

# Body Works — From the Inside Out

### Stress Free?

The human body is designed to experience stress and react to it. Stress can be positive, keeping us alert and ready to avoid danger. Stress becomes negative when a person faces continuous challenges without relief or relaxation between challenges. As a result, the person becomes overworked, and stress-related tension builds.

Stress that continues without relief can lead to a condition called distress -- a negative stress reaction. Distress can lead to physical symptoms including headaches, upset stomach, elevated blood pressure, chest pain, and problems sleeping. Research suggests that stress also can bring on or worsen certain symptoms or diseases.

Stress also becomes harmful when people use alcohol, tobacco, or drugs to try to relieve their stress. Unfortunately, instead of relieving the stress and returning the body to a relaxed state, these substances tend to keep the body in a stressed state and cause more problems. Consider the following:

- 43% percent of all adults suffer adverse health effects from stress.
- 75% to 90% of all doctor's office visits are for stress-related ailments and complaints.
- Stress can play a part in problems such as headaches, high blood pressure, heart problems,

diabetes, skin conditions, asthma, or arthritis in addition to depression and anxiety.

- The Occupational Safety and Health Administration (OSHA) declared stress a hazard of the workplace. Stress costs American industry more than \$300 billion annually.
- The lifetime prevalence of an emotional disorder is more than 50%, often due to chronic, untreated stress reactions.

### Here is a simple list of 10 ways that you can manage your stress:

- Keep a positive attitude.
- Accept that there are events that you cannot control.
- Be assertive instead of aggressive. "Assert" your feelings, opinions, or beliefs instead of becoming angry, defensive, or passive.
- Learn and practice relaxation techniques.
- Exercise regularly. Your body can fight stress better when it is fit.
- Eat healthy, well-balanced meals.
- Get enough rest and sleep. Your body needs time to recover from stressful events.
- Don't rely on alcohol or drugs to reduce stress.
- Seek out social support.
- Learn to manage your time more effectively.

# **Your kids are doing AMAZING things!!! We want your nominations!!!** There are so many kids at CORE accomplishing amazing things and we want to hear more about it! Parents, grandparents, and family members, you can nominate your child for a CORE award! All you have to do is write a letter telling us about your child's accomplishment and growth since they have been coming to CORE. <u>All letters are due by April 22, 2010.</u>

The year's at the spring And day's at the morn; Morning's at seven; The hillside's dewpearled; The lark's on the wing; The snail's on the thorn: God's in His heaven-All's right with the world!

**Robert Browning** 

"CORE"tastic Kids

### "Could you remind me, what did you just say?"

Have you ever been in one room of the house and started walking towards another room with a goal in mind... Usually, you're thinking of a task such as, "*I've got to get that file or book from the bedroom*." Halfway to the other room, you forget what you were going to get! Then you have to go back to the original room to remind yourself!

All teachers have heard of our working memory or short-term memory. By the way, even researchers act confused when I asked about the difference. The best answer is: working memory refers to the "cognitive load" (or the amount of "stuff") that your brain is holding in your brain while you do a task. But short-term memory refers to the time element of that cognitive load. Usually, short-term memory is from 5-20 seconds. If we do not process that content, it often vaporizes. But, does it necessarily have to disappear? The answer is no.

One of the many amazing things about our brain is its plasticity. This refers to the capacity to change through neural reorganization. Memory (working OR short-term) can be enhanced through several strategies. Why would you care? There are many reasons: kids follow directions better, they solve problems better, make better decisions and score higher on achievement tests.

The OLD school of thinking, based on George Miller's classic 1956 study suggested we can hold 7 \_/+ 2 items in our head. That's out of date, the new research suggests 2-4 (at the most) chunks in our working memory (Cowan, et al.). Working memory can be enhanced two ways: Strengthening neural networks (through practice) and strengthening the efficacy of the "real-time" holding capacity with chemicals. The neural networks get strengthened through practice. That means the use of games and activities that build this skill. As an example, if you want to get good at playing cards, a strong working memory is a must.

So what can you do? Actually, it's easy. Brain training games and activities with a good research base behind them are not just the future of the brain, but the present. The best website for working memory is <u>http://www.cogmed.com.</u> They have some excellent programs that can support brain changes. If you or a loved one (hint: son, daughter, niece, nephew, parent or spouse) does not have a good working memory, get some help. Life is tough unless the brain is working well.

Another pathway is the chemical one. Dopamine is the neurotransmitter most associated with feeling good. It's the chemical linked with pleasure, as well as the anticipation of pleasure. Dopamine is released under many conditions. Here are a few ideas to get the Dopamine flowing and the memory banks growing:

1. Make a prediction to a student, out loud, of something good about to happen (the students have to believe it and want it, of course)

2. Brisk walking, marching, brief games with spontaneous movement

3. Celebrations of joy (they must be genuine and last for at least 20-30 seconds to release any dopamine.) Get everyone involved, play upbeat music with a celebration activity)

In short, good feelings release dopamine. That's the potential of targeted teaching. But you have to commit to the process and ensure that it gets done! Stronger, Smarter, Better, Go!

-Eric Jensen

### CITATIONS:

Brennan AR, Arnsten AF. Neuronal mechanisms underlying attention deficit hyperactivity disorder: the influence of arousal on prefrontal cortical function. Ann N Y Acad Sci. 2008;1129:236-45

Cools R, Gibbs SE, Miyakawa A, Jagust W, D'Esposito, M. (2008) Working memory capacity predicts dopamine synthesis capacity in the human striatum. J Neurosci. Jan 30; 28(5): 1208-12

Cowan, N. (2001). The magical number 4 in short-term memory: A reconsideration of mental storage capacity. The Behavioral and Brain Sciences, 24(1):87-114.

Gibbs ME, Summers RJ. Effects of glucose and 2-deoxyglucose on memory formation in the chick: interaction with beta(3) - adrenoceptor agonists. Neuroscience. 2002;114(1):69-79

Jaeggi SM, Buschkuehl M, Jonides J, Perrig WJ. (2008) Improving fluid intelligence with training on working memory. Proc Natl Acad Sci U S A. May 13;105(19):6829-33.

Jaeggi SM, Berman MG, Jonides J. (2009) Training attentional processes. Trends Cogn. Sci. May;13(5):191-2;

Lecacheux M, Karila L, Aubin HJ, Dupont P, Benyamina A, Maman J, Lebert A, Reynaud M. [Cognitive modifications associated with tobacco smoking]. Presse Med. 2009 Sep;38(9):1241-52

Zigmond MJ, Cameron JL, Leak RK, Mirnics K, Russell VA, Smeyne RJ, Smith AD. Triggering endogenous neuroprotective processes through exercise in models of dopamine deficiency. Parkinsonism Relat Disord. 2009 Dec; 15 Suppl 3:542-5

## Reading Tips

- Read often to your child and have fun.
- Snuggle when you read.
- Don't skip your regular reading time.
- Read and reread stories requested by children.
- Make predictions (child tells what he/she thinks will happen next).
- Enjoy the illustrations.
- Talk about the authors and illustrators of the books you read.
- Be patient while your child is reading aloud.
- Listen to books on tape.
- Have your child read into a tape recorder once a month and share the progress with him/her.



### More Math Games to Play with a Deck of Cards and/or Dice

### *Concentration* (add, subtract, multiply, divide)

The object of the game is to find pairs of matching cards among an array of face down cards. Help your child write addition, subtraction, multiplication, or division facts on one set of index cards, and the answers on another set. Shuffle the cards and lay them out face down. The first player turns over two cards. If they match, the player keeps the two cards and takes another turn. The next player continues by trying to find two matching cards. When all cards have been collected, the player with the most pairs wins.

### Dice Games (addition)

You will need 2, 3, or 4 dice and one score sheet. Tally to so many rolls or to a preset score such as 50 or 100 points. Vary it by adding the sums of the dice together, and the greatest or least score wins!

Vary it again by rolling 3 colored dice and 1 white die. Subtract the number on the white die from the sum of the colored dice, and the greatest sum wins.

### Race for \$1.00 (money addition)

You need 30 pennies, 10 nickels, 20 dimes, 1 guarter, a dollar, 2 dice, and a partner.

Take turns. On your turn, roll the dice. The sum tells how many pennies to take. When you have 5 pennies, trade for a nickel. When you have 2 nickels, trade for a dime. When you have 2 dimes and one nickel, trade for a quarter. The first player to reach \$1.00 is the winner.

### Handwriting Tips

- Have child pick M&Ms out of an egg carton.
- Create a fun water bottle. Using a clear plastic bottle, use tweezers or chop sticks to place items in the empty bottle. The items just need to be able to withstand water. (metal confetti, plastic flowers, small plastic letters or numbers, etc.) Fill the bottle with water and put the cap on. This engages the hands and is also visually pleasing.
- Staple a piece of paper to a cork board with a lot of staples. Have child remove all of the staples with a staple puller.
- Use a cork board or a foam roller and have child spell their name in thumb tacks.
- Hide nuts in silly putty and have child search for them. Once they have found the nuts, have them screw them onto a bolt. Have them race another child or set a timer to make it more fun.
- Cut a vertical slit in the side of an empty plastic bottle and have child insert coins (or any other object that will fit) through the slit.