

## **Piracetam: A Powerful Tool for Learning Disabilities and Dyspraxia**

**By Kelly Dorfman, M.S., L.D.N.**

**Rosie had multiple learning and language disabilities related to a seizure disorder that had resisted medical treatment. "The little men in my head make the lights go out," Rosie told me on her first visit. Joseph, a boy with severe language delays, had also been making little progress. "I never thought this would happen," Rosie's mother exclaimed excitedly, six months later. She was referring to a recent test result that revealed her eight year-old daughter was now reading at a first grade level.**

**Joseph's mother was likewise thrilled when a speech evaluation found her son had gained 13 months in receptive language in just nine weeks. Jackson, a boy with a brain injury, began walking independently for the first time. Rene, an adopted toddler whose birth mother abused drugs, overcame an "incurable" swallowing disorder.**

**What is responsible for these remarkable changes? Piracetam!**

**What is Piracetam?**

**Piracetam, (2 oxo-pyrrolidone) is a "smart drug" developed in Belgium in the mid-1960's. Briefly introduced to DDR readers three years ago in an article I wrote about cognitive enhancers (New Developments, 7:2, 7), this remarkable product falls into a class of drugs called nootropics. Nootropic means "acting on the mind".**

**While hundreds of studies have been done on piracetam's usefulness and safety in Europe and in the former soviet Union, the U.S. Food and Drug Administration (FDA) does not recognize nootropics as a separate class of drugs, although it allows their use for a variety of purposes. Piracetam has been shown to be extremely effective in enhancing memory and cognition in children diagnosed with dyslexia and dyspraxia. It has also been used to slow the rapid brain aging associated with Down syndrome.**

**How Does Piracetam work?**

**Nobody knows for sure; researchers believe that two reactions are at play. First, piracetam appears to influence glutamate transmission. All four glutamate neuro-transmitter have excitatory properties. When piracetam effects the glutamate in the cerebellum, the center of motor function, motor planning skills improve.**

**Second, piracetam most likely improves blood flow to the brain and oxygen uptake by the brain by activating acetylcholine, a neurotransmitter involved**

***in motor planning, memory and organization. This activation of acetylcholine uptake and formation is called a cholinergic effect.***

***Piracetam's relationship with acetylcholine is complex, though the net result is cholinergic. Researchers have, therefore, found that increasing choline, the nutrient building block of acetylcholine, enhances its effectiveness.***

***Di-methyl-amino-ethanol (DMAE) is a choline derivative that appears to cross the blood brain barrier. DMAE is found in sardines and anchovies, fish often referred to as "brain foods." Studies done on DMAE alone found that it reduced hyperactivity and improved concentration in students with learning disabilities and behavioral problems.***

***Finally, piracetam promotes transfer of information from one hemisphere of the brain to the other. Coordinating the right and left hemispheres is critical for motor planning. A nine year-old I know climbed to the top of the jungle gym while taking piracetam because he could now alternate his limbs more efficiently, and was thus more confident of his ability to maintain his balance.***

***How is Piracetam Delivered?***

***Liquid piracetam is available over-the-counter through [www.antiaging-systems.com](http://www.antiaging-systems.com) or as a powder from [www.piracetam.com](http://www.piracetam.com). Flavored piracetam in a liquid can be ordered by prescription from NuTriVene at 800-899-3413***

***A common dose for piracetam is 50 mg per kg of body weight. DMAE is available at any good health food store as a chewable, liquid and a pill. Taken to enhance piracetam, dose it between 50 and 200 mg per day. Add these substances only one at a time, starting with piracetam.***

***Cautionary Notes***

***Since piracetam and DMAE increase brain energy, they may cause irritability, anxiety or nervousness in some children. Speak with a health care professional before introducing piracetam to a child who is highly agitated already, or who has reacted poorly to DMAE or other choline derivatives. Ask your doctor before using it with a child already on stimulant medication. Although there are no known interactions with other medications, and side effects are rare, every child is different, and each developing brain responds in a unique fashion.***

***I have concluded after using piracetam for over 15 years that, unfortunately, it has limited usefulness with those who have classic autism. Piracetam does not increase a child's sociability, but can help***

***children communicate better in social situations by improving the pragmatics of language and increasing motor planning skills.***

***Consider piracetam for any child with dyspraxia or motor planning problems. I even know a mother who found it benefited her tendency to bump into things in her path! For more information on piracetam, go to either of the websites above.***