

## **Rhythmic Movement Training (RMT) and working with Autism Spectrum Disorder (ASD)**

### **What is Autism?**

Autism is a neuro-developmental disorder that is generally distinguished by impaired non-verbal and verbal communication and social interaction. It is also associated with repetitive and restricted behavior. The parents typically notice the signs and symptoms of this condition during the initial 2 years of life. The signs usually developed gradually, although some children with autism reach their developmental milestones at the normal pace then regress. The criteria is that the behaviors are noticeable when the child is still young, normally before they reach the age of three.

There is a lot of evidence that suggests that the condition is hereditary, however many researchers also think that both genetic and environmental factors can trigger the development of autism in children. In some cases, autism is associated with agents that can trigger birth defects in unborn children. Controversies cover the other projected environmental triggering factors. Autism affects information processing that takes place within the brain through altering the way the nerve cells and their synapses organize and connect. The reasons for and the way it occurs is still not understood well as yet.

In December 2014, researchers were able to identify over a thousand gene mutations in people with autism. However they cannot yet explain how those mutations triggered an increased risk to for some people which led to autism. Researchers from the University of North Carolina (UNC) School of Medicine have been able to portray how one of those mutations disabled the molecular change in one of those genes that causes autism. Their work on the UBE3A enzyme and what happens when it's regulatory ability to switch on and off throughout the normal neuronal development of the brain is very promising. They have found that when this switch is compromised it leads to UBE3A being hyperactive which results in abnormal brain development that leads on to autism.

Other researches have been looking at the role of retained primitive reflexes and motor deficits in people with autism. Philip and Osnat Teitelbaum, Robert Melillo, Jana Konicarova and Petr Bob are just a few of the researches looking at the role movement plays in autism.

It is estimated that about 1% of the world's population is affected by autism. Some countries seem to be more affected than others. In 2014 1.5% of children in the USA were diagnosed as living with some level of autism. The 2014 United Kingdom rate of adults with autism aged 18 and older was 1.1 percent. The number of people who have this condition has increased continuously since the 1980s, in part because of changes in diagnostic practice.

### **The Major Signs of Autism**

Autism (also called ASD – Autism Spectrum Disorder) is characterized by behaviors that extend along a range from mild to severe. The major behaviors displayed, to a greater or lesser degree, by people with autism are challenges with:

- **Social relationships and interactions.** The signs might include the following:
  - Significant issues in the development of non-verbal communication skills such as eye to eye contact, body posture and facial expressions.
  - Difficulty in establishing peer friendships
  - No interest in sharing happiness, hobbies, tasks and achievements with others.
  - Lack of empathy – find it difficult to understand the feelings of another person.
  
- **Nonverbal and verbal communication.** The signs may include the following:
  - Delay, or lack, in learning to speak. As many as 40% of people on the spectrum never learn to speak.
  - Difficulties in both starting a conversation and continuing a conversation once it is started.
  - Repeating the same phrase over and over again
  - A tendency to take things literally. Difficult to understand humor. Do not understand emotional undertone of speech.
  
- **Limited interest in play or any activity.** In this aspect, the symptoms include:
  - Unusual focus on the pieces. Young children with focus on the parts of a toy such as the wheels of a car rather than on the whole car.
  - Pre-occupation bordering on obsession with a single topic or activity. For instance, older children or adults might be fascinated and attracted by video games, license plates or timetables
  - The need to follow routines and sameness. For example, a child with autism might always have to eat bread before consuming salad and he or she may insist driving the same route to school every day.
  
- **Stereotyped behaviors.** The signs here include hand flapping and body rocking.

### **Rhythmic Movement Training (RMT) working with ASD**

Many people have found that the gentle rocking movements and pre-birth patterns of RMT have had a beneficial impact on people with autism. Many children like the gentle passive movements. It seems to calm them and relax the body. Many children with autism respond positively to the movements and actually ask for them. The calmness that ensues leads on to a better feeling of safety and security and a greater willingness to participate in the world. Along with this there seems to be greater awareness and

a higher likelihood of being ready to attempt new things. People have also reported that there are changes in the ability to make eye contact and connections to others.

RMT works well with other therapies and interventions and it helps to re-lay the neural foundation associated with integrating primitive reflexes.

Many parents report better communication with improvements in speech and language. There also seems to be changes in sensory processing.

RMT is not a cure for autism, however for many people it does seem to be an effective component of intervention programs.