

The early years are critical for developing key brain pathways governing sensory, language and higher cognitive function. It's much harder in later years (Harvard University)



Children's development depends on the positive stimulation they receive at preschool and at home

### **Act Early for Maximum Impact**

We opened Mindstretch Preschool at the request of parents unable to find the right place for their children with learning challenges. Another key motivator was our understanding of how crucial early intervention is for maximum impact. 'The Mindstretch Way' is founded on the belief that every child can reach their full potential if learning challenges are addressed early in development.

The bulk of brain development takes place in the first 5 years of life. This is when brain pathways are laid down to govern emotion, language, motor and cognitive abilities. Such development is driven by the child's every-day experiences. Indeed, studies show that a child's development and performance directly relates to the cognitive stimulation they receive in the home and preschool environments.

In all children and particularly those with learning challenges, it's vital to begin developmental and/or remedial work in the early years when the brain is best able to respond. As Harvard University scientists put it: "It's easier and less costly to form strong brain circuits during the early years than it is to intervene or 'fix' them later".

So, while it's never too late to intervene, earlier is better. That's why we're delighted when 3 year olds enrol at Mindstretch Preschool and we know we have more time to work with them and can influence key developmental systems more effectively.

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Our Preschool has passed its 1-year anniversary and continues to grow and flourish. The graduation of our first learner to Vista Nova school was a major highlight demonstrating the importance of early intervention. As his mother wrote to me: "Just as a house is only as strong as the foundation upon which it is laid, so we will be eternally grateful for the platform which Mindstretch has laid in our son's life."

As for this our second newsletter, I hope you enjoy it, and I thank Louise Lindenberg for her contribution on page 2.

Regards, Jennifer (Mindstretch Founder, Preschool Principal)

### Attention in the Information Age

By Dr Louise Lindenberg

The digital revolution has brought the Information Age or Knowledge Revolution, with knowledge a key economic currency. We have to be even more observant of optimizing brain function, particularly in our children. To do this, let's touch on five factors.

- 1. DIET. Today's diets invariably include processed and convenience foods. Children prefer nutrient-deficient foods for many reasons. Now, more than before, society looks to dietary guidelines. We're bombarded with special diets for special purposes, and often forget the basics of healthy eating. A balanced diet with fresh, whole foods and good nutrients is still the first choice for any child, but even more so in the developmentally compromised.
- 2. SLEEP. School-aged children should sleep at least 10 hours a day. Sleep needs are individual, but children who have enough sleep are better able to concentrate than a sleep-deprived child. Circadian (day–night) rhythms determine function and are regulated by hormonal fluctuations. One such hormone is Melatonin, which is well researched as a sleep remedy in children and adults and is safe and very effective when taken as a supplement. New regulations mean it's not easily available off the shelf, but Melatonin can be prescribed at the dose 3–10mg at night to aid sleep.



Dr Louise Lindenberg runs an integrated medical practice in Cape Town and Stellenbosch (www.autismdoctor.co.za). Her passion is working with children in the autism spectrum, for whom she applies a biomedical approach to improve outcomes.



Exposure to the 'blue light' of electronic devices, (e.g. computer, TV and cellphone screens) disturbs children's sleep by affecting Melatonin levels; further, small screen interactive devices cause even more harm to sleep patterns. It's best to switch off all electronics at least 1 hour before bedtime.

3. SUPPLEMENTATION. A few basic supplements are well indicated to support childhood development. A good (preferably organic) multivitamin is worthwhile in all instances, but especially where the child's diet may be suboptimal. Additional omega 3 supplementation is very important to support brain development and probiotic supplementation, even if not given daily, is also beneficial. Several supplements are available for specific reasons related to concentration and development, but it's better to target these to desired outcomes.

#### 4. HERBAL AND HOMEOPATHIC REMEDIES.

Homeopathic remedies are safe but herbal remedies should be used in consultation with a knowledgeable therapist who can weigh up the benefit and side-effects. Herbal remedies often are used for the wrong indication or at the wrong dose. Incorrect or opportunistic marketing can also misdirect consumers. Be careful when considering herbal medication! Sometimes consulting with an expert saves money in the end.

**5. MEDICATION.** Medication is effective in treating diagnosed Attention Deficit and Hyperactivity Disorder (ADHD), but comes at a cost. There are many other options to consider before initiating medication, or that can help alongside medication.

#### **Fun with Numbers**

Our Grade R Remedial and Enhancement Programme has got off to a very good start. One of the items we've introduced is the 'Fun with Numbers' Toolkit, an approach we use successfully either with the group or one-on-one.

The tools are successful because they're both fun and stimulating, with the children learning numeracy concepts through sensory exploration and games. Among our favourite items is the simple addition and subtraction practice with blocks, magnetic numbers, counters and a whiteboard — and dough too! The photograph below shows our learners making the dough that they then formed into numbers, and then used in simple maths.

The lesson is clear: if a child is avoiding learning, find a way to change the method and make it fun. Put away the 'dreaded' work and bring in something new and stimulating.

"After school today, our son said 'the new school is fun'. I have never heard him use the word fun before and he is speaking more. It's amazing on the first day. I am sure I can see a difference already."





## **Swimming for Well Being**

Summer is here and so is swimming. At Mindstretch Preschool we now offer swimming lessons to our learners.

The activity has numerous benefits:

- Building endurance, muscle strength and the cardiovascular system.
- Maintaining healthy weight, hearts and lungs.
- Toning muscles and building strength in an all-body workout.
- Improving co-ordination, balance and posture.
- Promoting brain inter-hemispheric integration by using both sides of the body.

Apart from the obvious physical benefits, several others include:

- Relaxation, with the rhythmic strokes, immersion in water and concentration on technique creating a sense of calm meditation.
- Alleviation of stress, especially important for children with Autism Spectrum Disorder (ASD) and/or other learning challenges who can experience high stress.
- The opportunity for recreation and the chance to practice social skills in a fun, unthreatening environment.

Another motivation for this inclusion is the importance of water safety. Every child should learn to swim as soon as possible. Also, when not in use a swimming pool is best secured with a safety net, as our pool always is.

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#### MMR Vaccine not Linked to Autism

Perhaps the most important report of the past year was the analysis showing that there is no association between vaccination and either autism or autism spectrum disorders (the study was published in the journal *Vaccine*).

For many years controversy has raged about the possible link between childhood vaccinations and the development of autism. However, after much scientific research, the broader healthcare community concluded that there is no association, but still some doubt remained for some people.

The current scientific 'meta-analysis' gives further, substantial confirmation. The meta-analysis combined and analysed the results of ten high-quality individual studies and involved more than 1.2 million children (by increasing the size of the sample, scientists could make more accurate conclusions than is possible with a single study.) The findings were clear: vaccines (and/or the components of vaccines) don't cause ASD.

To get the full study, go to the *Vaccine j*ournal website: http://www.sciencedirect.com/science/article/pii/S0264410X14006367

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