

Autism

The Food Connection

Autism is a debilitating illness for which modern medicine has no real answers. It has increased 30,000% since 1980 in the USA. So, when we find a treatment that completely reverses it, we need to sit up and take notice. Dr Natasha Campbell-McBride had to look hard for answers when her son developed autism. Eventually she found those answers and her son is now completely recovered. She went on to successfully treat many other autistic children using the same methods. She found that the key factor in recovery was healing the gut.

Autistic children nearly always have gut problems. They have gastro-intestinal symptoms, leaky gut and abnormal gut flora. She developed the GAPS (Gut and Psychology Syndrome) diet for this and today it remains the most promising treatment for autism.

She has found that when the gut flora is damaged, as in autistic children, the abnormal microbes produce a plethora of toxic substances, including opiates, which damage the brain. Basically, these children can absorb fats and proteins in the normal way but cannot absorb sugar, milk and complex carbohydrates. These break down in a way that feeds the harmful microbes and exacerbates an already abnormal gut flora. Fibre, which is beneficial for most of us, can become toxic in autistic children, in the absence of a normal gut. The diet is initially strict but as the gut flora heals, the diet can be eased, and eventually, they can eat normally. Autistic children typically need to stay on the diet for two years. She has trained 2000 practitioners in the GAPS diet in 20 countries and has written about it in her book the "Gut and Psychology Syndrome".

Most children with autism are worse with gluten and milk which break down into toxic metabolites which affect the brain. Karen DeFelice also had an autistic child and following her own experience, wrote the book "Enzymes and Autism". She found beneficial effects from enzymes which break down wheat and milk. She has found enzymes such as Peptizyde and Zyme Prime (Houston Nutraceuticals) to be particularly useful.

JB Handley (see below) described how his son improved within 2 weeks of starting a diet without milk and gluten combined with nutritional

supplements, probiotics, and cod-liver oil. His belly flattened, eye contact returned and the dark circles under his eyes largely disappeared.

One of the best guides to treating autism is *Healing and Preventing Autism: A Complete Guide* by Dr Jerry Kartzinel and Jenny McCarthy.

The **Autism Research Institute** has worked with parents and monitored which treatments work best. This has become **Defeat Autism Now!** (DAN). This has continued to integrate new information.

One study found giving two to three servings of cruciferous vegetables (cauliflower, broccoli, kale, Brussels sprouts) daily improved behaviour and social interactions in autistic children within a few weeks.

The Toxic Connection and Electro-Magnetic Frequencies

It has been known for some time that autistic children have higher levels of heavy metals in their body. Autism is higher in first-born children who are known to receive higher toxic loads when in the womb. Some practitioners have used chelation to remove the toxic load. Note also that aspartame in pregnancy was associated with more autism in a Dutch study. A doctor called Amy Holmes and a nutritionist called Tamara Marica had both been independently treating autistic children with chelation therapy and both noted that younger children (under 6) did much better and excreted more heavy metals, but older children often made no progress. Later Tamara Marica met up with epidemiologist George Carlo, an expert on electro-magnetic fields (EMFs) and then they both had the same thought: could EMFs be damaging cell membranes and the blood-brain barrier, stopping heavy metal from being excreted?

They then intensively treated a 10-year-old autistic boy who had not responded to a variety of treatments. The intervention was designed to remove toxicity from the environment, and they removed mobiles, wifi and electrical equipment from his home. He began to speak and improved markedly, and tests showed heavy metals were being excreted.

They followed this up with a study of 20 other autistic children using a similar regime in which they were EMF-free for 4 hours two to three times a week (a surprisingly short time). They did not use chelation but after 3 months the children began to excrete heavy metals spontaneously. (J Aust Coll Nutr Environ Med, 2007;26:3-7).

Family History

There is a link with obesity. The strongest link is with obesity in the father. The more obese the father the higher the risk of autism or Asperger's syndrome in the child. There is also a link with maternal obesity but this is less strong.

Supplements

Supplements are valuable in autism. The late Dr Bernard Rimland, like so many others who have looked for and found answers, had a son with autism. He established the Autism Society of America and wrote the book *Infantile Autism: the Syndrome and its implications for a Neural Theory of Behaviour*. He published 22 studies (13 of these double-blind) which showed that high dose vitamin B6, often combined with magnesium benefited a large percentage of autistic children. (My guess is that the minority that didn't respond might have had a variation of the MTHFR gene and need the methylated version of B6 called pyridoxal-5-phosphate or P6P). The dose he recommended was 8mg per lb body weight (usually around 300-500mg) and 3-4mg magnesium per lb body weight (to maximum of 1000mg in an adult). He recommended starting with a quarter of this strength increasing every 10-14 days.

He also favoured Dimethylglycine (DMG) (half a 125mg tablet for a preschool child and 125mg for a larger child). A multi-B vitamin was also recommended with these.

Zinc is a key mineral to use as toxic metals can enter the body and brain far more easily if zinc is deficient (30mg daily). Essential fatty acids (EFAs) are brain food especially Omega 3 fats. Probably the most important of these is docosahexaenoic acid or **DHA** (1000mg daily). Leaky gut is nearly always present in autism and L Glutamine (between meals) is a key supplement to help with this (500mg three times daily). Vitamin D is also valuable (2000 iu daily). Probiotics or substances like kefir (non-dairy) and sauerkraut can help build up the bowel flora.

Dr Richard Frye, a paediatric neurologist in Arizona has noticed remarkable improvements in autism with **folinic acid**. He has found 75% of children with autism are low in folate. Mothers who take folate in the first few months of pregnancy are less likely to have children with autism. Folinic acid is his preferred supplement as it reaches the brain more easily than the synthetic version, folic acid (see more below on vaccines).

Finally, there is an interesting supplement called **Octocosanol** which comes from wheat germ (so potentially problematical in autism).

However nutritional pioneer Dr Carleton Fredericks found it helped in a wide variety of brain conditions. Canadian parents, Naseer and Monica Ahmad, had a son Lee who developed autism. They tried a variety of supplements and other treatments which all helped to a degree. However, the real breakthrough came when they added octocosanol with DMG and his IQ went from 47 to 104 to the disbelief of his doctors. Naseer went on to qualify as a doctor and use holistic methods of treatment. Some practitioners have found alpha lipoic acid to be a useful supplement.

Paul Shattock from Sunderland University found that most autistic children have a defect in part of their detoxification pathway called the sulphation pathway (typically working at 15% of normal). He found autistic children had 12 times as much sulphate and 60 times as much sulphite in the urine compared to unaffected children. This means they don't detoxify certain substances properly (including heavy metals and opiates produced by breakdown of foods in the gut). Sulphur is needed for detoxification and for digestive enzymes. He has developed a urine test for this and the Sunderland protocol. Extra sulphur is helpful and perhaps the easiest way of achieving this is with Epsom salts (magnesium sulphate) in the bath. Molybdenum helps in a third of cases.

The above doses are for adults (apart from B6 and magnesium which go by weight). The doses of supplements will depend of body size but generally above 12 years counts as an adult strength. For 6 to 12 years olds use half adult strengths, and below this one quarter of adult strength. Take specialist advice with babies.

Be careful of B vitamins in autism. Autistic children often have defects of methylation and need the methylated version (eg folinic acid not folic acid) and can react badly to standard B vitamins.

However, vitamin B12 is recommended. Dr Chandy, an expert in B12, found many children with autistic spectrum disorder who were disruptive or had difficulty coping, **had rapid reversal of their condition after being given treatment with vitamin B12.**

The Vaccine Connection

A large number of parents have reported that their child's autism started after a vaccination (see https://www.youtube.com/watch?v=T_ZYqBiili0). When they have told their story they typically felt "fobbed off" and that no attempt has been made to investigate this possibility. This is because it is generally accepted that there is no link between vaccines and autism.

But things are not quite as they seem. Dr Lucija Tomljenovic from the University of British Columbia, Canada, using Freedom of Information legislation, obtained data from the Joint Committee on Vaccines and Immunisations (JCVI), and found the JCVI knew about the link between MMR and autism ten years before the paper published by Andrew Wakefield which suggested a link between MMR and autism. She found issues related to vaccine safety had been repeatedly neglected or covered up and the JCVI had not even followed their own earlier guidelines (having intervals between the times that live vaccines are given). Her revelations would give any parent nightmares. (See Vaccination Policy and the UK Government: "The Untold Truth" by Christina England and Dr Lucija Tomljenovic for further detail and also "How to end the Autism Epidemic" by JB Handley).

It is well established that vaccines can cause neuropsychiatric adverse reactions. The World Health Organization's VigiBase has reported a massive 252,031 neuropsychiatric adverse events from vaccines. It is also well established that infections can trigger brain inflammation. Brain inflammation can be caused by syndromes such as PANDAS (paediatric autoimmune neuropsychiatric disorders associated with streptococcal infections) and PANS (paediatric acute onset neuropsychiatric syndrome) which can be triggered by a variety of infections.

It seems entirely plausible that both infections and vaccination trigger brain inflammation by a similar mechanism, making it likely that those cases of autism that occur following vaccination are directly connected to the vaccine.

It is also well-established that auto-immune reactions can cause brain inflammation. One of these auto-antibodies (folate receptor alpha antibodies) are commonly found in autistic children (75%) against 10-15% in normal children (see above). This explains why folic acid can be beneficial.

The link between MMR and autism was further investigated by a physician, Stephen Schultz in 2008. He compared 83 children with autism and 80 controls. These children (under the age of five years) developed autism after the MMR vaccine. But the surprise was that this happened **only if paracetamol was given, not ibuprofen**. And the odds were striking: a 611% increase in autism if paracetamol was used, a 390% increased risk of regressive development and an 823% increase in post-vaccination sequelae. Further work has found autistic children have marked defects in the detoxification of paracetamol. The key message

here should be to **avoid paracetamol after vaccinations**. Sadly, it is a message rarely given.

It seems this controversy will keep on running. Certainly, it is true that the majority of cases of autism are not linked with vaccines, but it also seems likely that vaccines do trigger autism in vulnerable individuals.

The Aluminium Connection

Patients with autism have higher levels of aluminium. The brains of autistic patients have been found to have between three and five times as much aluminium as those without autism. This was in a form that strongly suggested its origin was from aluminium adjuvants (used in all vaccines). And the amount of aluminium in hair samples is 90% higher in those with autism. A study from China has found these adjuvants can cause the equivalent of autism in lab animals.

There is a correlation between the amount of aluminium children receive and the prevalence of autism spectrum disorder (ASD) in seven Western countries. The prevalence is highest in the UK and USA which have a nearly tenfold higher incidence of ASD compared to Iceland and Finland where the amount of aluminium a child receives is a quarter of that in the UK and USA and it is also given later after birth (doi: 10.1016/j.jinorgbio.2011.08.008. Epub 2011 Aug 23).

The solution to this is firstly to avoid further aluminium exposure and secondly to remove aluminium. For vaccines it would make sense to use a schedule similar to Scandinavian countries where vaccines do not start until three months and the number of vaccines is reduced.

Avoiding Aluminium

Some sources of aluminium are obvious such as aluminium cookware, aluminium cans and aluminium foil. However other sources are less obvious. It can be found in coffee makers (usually in the piping), antiperspirants, some shampoos, baking powder (but baking powder is available without aluminium), nearly all vaccines, tobacco, tattoos, colorants, antacids and some other pharmaceuticals such as levothyroxine.

Removing Aluminium

Aluminium is removed from the body by a naturally occurring substance called orthosilicic acid (OSA) sometimes called silica water. The

major source of this is vegetables and certain types of water. Silica supplements have poor bioavailability so don't resolve the problem.

Many vegetables and herbs contain OSA and to a lesser extent they can be found in fruits. Typically, the skin and husks contain more OSA. Good sources are oats, wholegrains, beans and basil. Beer often contains OSA but beware as much beer comes in aluminium cans.

Water is an important source of OSA. Some waters are naturally high in OSA: these include Fiji and Volvic water. There are impressive testimonies recorded by Dennis Crouse of improvements in autism, ADHD and childhood epilepsy after regularly drinking these waters (it usually takes 6 to 12 weeks to see results). However bottled water is bulky and environmentally unfriendly. Another solution is to make your own which can be done cheaply (see Dennis Crouse on you tube: Silica Water: How to make it at home).

Another solution is to use MSM (methylsulfonylmethane) which is also good at removing heavy metals such as aluminium.

Air Pollution

It is known that in some highly polluted cities like Mexico City there are high rates of autism. Alzheimer-like changes have been found post-mortem in children and young adults in polluted cities in Mexico. A recent study found dementia to be higher in highly polluted areas but not moderately polluted areas of London. In the UK, autism is higher around incinerators and oil refineries. Other studies have noted poor cognitive development in children in polluted areas. Clearly air pollution affects the brain but why?

Air pollution allows large numbers of ultrafine particulates into the body through the lungs, and these end up in the brain and other organs. Because children breath more air relative to their body size they are more vulnerable to pollution. Pollution is often higher than outdoor pollution and here we do have some control. So it makes sense to avoid aerosols, sprays, candles, scented products and air fresheners. Paints can be a problem, but low VOC paints are available. Basically, be suspicious of anything with a strong smell. Consider an air purifier.

Spelling to Communicate

Many autistic patients can't speak, and it is often assumed that they can't understand speech. This has proved to be completely untrue. A new

and exciting treatment involves getting autistic patients to spell out their answers using cut-out letters. The sophisticated and sometimes brilliant answers that they give have often shocked their carers, who have described these moments as life changing as they came out of a prison of silence. The book "The Autistic Mind Finally Speaks: Letterboard Thoughts" describes this remarkable breakthrough, as does "Underestimated" by J B Handley.

Sound Therapy

Alfred Tomatis was an extraordinary individual (he was in the French resistance in World War Two) and a highly talented doctor who made discovery after discovery about the link between the ear and the brain. He studied the effects of various sounds and music on the brain. He found frequencies of 5000 – 8000Hz acted like a brain nutrient especially around 8000Hz, energising the brain and helping brain function. These high frequency sounds were mostly found in nature (such as bird sounds) and some types of classical music. The most healing sounds (8000 Hz) were heard whilst in the womb. He developed Sound Therapy using an Electronic Ear which has helped in a variety of conditions; it accelerates learning and improves sleep. It is said to have cured 12,000 people with dyslexia and 80% of patients with speech defects.

The Electronic Ear starts with high frequency sounds similar to that of a mother's womb and then similar to listening to their mother's voice through a filter (as if in the womb). It also includes specific classical pieces where notes under 2000 Hz have been filtered out and a fluctuation of high and low frequency sounds which stimulates both hemispheres of the brain (stimulating the right ear more). Typically, it takes about 100 hours for the brain to become conditioned to it.

Tomatis founded a new scientific discipline, Audio-Psych-Phonology, which at one time had its own journal. Many scientific papers were written but now this therapy is largely forgotten.

Autistic children hear in a different way to us. Tomatis believed they find certain sounds excruciatingly painful and relax their ear muscles in defence, leading to loss of precision in hearing sounds and speech problems. He also believed we use hearing actively like a zoom lens and this mechanism fails in autism. Sound therapy allows the ear muscles to alternately tense and relax and this ultimately leads to normal hearing. After treatment, autistic children have commented that the unpleasant distorted sounds which had been a constant background noise to them,

finally disappeared. Autistic children typically start to hear better after Sound therapy and communication typically improves following this.

Homeopathy

I remember going to a talk on the homeopathic treatment of autism and ADHD many years ago by Dr van Rhijn at what used to be the Royal London Homeopathic Hospital. I was hugely impressed by the changes in children after being prescribed the correct homeopathic medicine. These were children that no one else had been able to help. This occurred in cases treated with or without nutrients. Having said this, Dr van Rhijn stated that he believed he had better results when using nutrients. However, I must sound a note of caution here. It takes a highly skilled homeopathic practitioner to find the right remedy and even he may not find it first or even second time and in fact no result can be guaranteed. All the same the fact that these dramatic changes are possible is inspiring.

There is a category of diagnosis in homeopathy that doesn't exist in mainstream medicine called "never been well since". As an example, I have often treated people with adverse reactions to flu vaccines with what is called the homeopathic "nosode" of the vaccine with a high rate of success. However, dealing with a complex condition such as autism is a different matter. I understood from the talk that (in those cases that followed vaccination) nosodes of vaccines did sometimes help but by no means always. Usually, a combination of medicines was needed.

Plan of Action

There is now a lot more information about autism available today. Here are some steps which can help in rough order:

- 1) Stop milk for 3-4 weeks and see if it helps. There is often a change in one week if there is milk intolerance.
- 2) Stop wheat for 3 months. Again, often there is improvement in one to two weeks if there is a wheat intolerance but it can take longer.
- 3) Treat gut dysbiosis. This is beyond the scope of this leaflet. There is some information in the IBS leaflet.
- 4) Look for toxicity including heavy metals (mercury, aluminium and lead) but also other chemicals (known link between autism and exposure to agricultural chemicals). See toxicity leaflet for more information.

Summary

Sadly, many factors in the modern world (pollution, poor diet, vaccines, electromagnetic smog) favour the development of autism and make it harder to treat. However, there are some promising treatments. I think the GAPS diet should be the cornerstone of treatment. Reducing toxicity, minimising exposure to EMF frequencies and using supplements are also important. I believe the more measures you can put in place to support the brain the better the chance of recovery.