<u>Hyperactivity(ADHD)</u>

This is now a common and growing problem in children. Even as far back as 2001, 75% of children were on Ritalin in some schools in the US. It is often called ADHD (Attention Deficit Hyperactivity Disorder). But why has it become so common and what causes it?

We know that hyperactive children are often **oversensitive to foods** and chemicals.

In an important but little-known study at the Great Ormond Street Hospital in 1985 they put 76 hyperactive children on an exclusion diet. 62 improved. They were put back on the foods in a controlled way and their hyperactivity came back. Some reacted to foods and some to food additives. A total of 48 foods were found to cause problems; the most problematical were additives, wheat, milk, chocolate and orange.

Other studies have found milk, sugar, chocolate, and colourings to be major triggers. **Juices** are often triggers; **blackcurrant juice and Ribena** are notorious for causing hyperactivity as is the additive tartrazine which gives a yellow colour (this caused emotional and behavioural changes in all children (and this was severe in 40%). **Tartrazine** is found in children's drinks and many processed foods.

In a study by the UK Food Standards Agency in the Isle of Wight, normal children were given drinks laced with a cocktail of additives. Parents noticed **their behaviour became worse and only improved after the additives were stopped**. This gives us a big clue.

Hyperactive children can be **very sensitive to chemicals** such as aerosols and perfumes. **Fluoride** can also aggravate symptoms. **Toothpaste can be a major trigger** as it contains both fluoride and colourings.

Symptoms like sweating at night, excess thirst, food cravings, dry skin, red ears, heavy eyes, and gut symptoms are a clue to a food sensitivity. Of course, many children can be overactive when young, but they usually sleep at night, whereas children with ADHD often don't. There can be a history of excess kicking during pregnancy.

Treatments

The main conventional treatment is **Ritalin**. This is a stimulant (like amphetamine or coffee) so it increases attention span. As the effect wears off there can be a rebound effect with restlessness and impulsiveness. Appetite loss and sleep problems can occur. Also, about 30% of children don't respond to it. **Growth reduction** is a recognised and worrying side-effect. Another worrying side-effect is an **increase in cancers** of the breast, lung, prostate, and the liver later in life.

My belief is that it is better to treat the cause. This means finding which foods and chemicals cause the hyperactivity. It also means using supplements as most of these kids are deficient in key nutrients. **Foods** – the first step is to try an **exclusion diet** which removes the following: **food additives, food colourings** and **preservatives, sugar, milk, orange, blackcurrant (often a problem) and chocolate** for ten days (see notes below) Drink only water, ideally bottled or filtered. During this time stop using aerosols or any chemical with a obvious smell in the house. Avoid toothpaste as well (it's full of colourings) – you can use sodium bicarbonate instead or just water for a time. After ten days add these foods back, one per day, and see what happens. Remember these are not the only foods that can cause problems and other foods such as **wheat, eggs and tomato** may need to be tested.

Once you know what foods are causing problems you can avoid them or sometimes desensitise (see below). Remember also to beware of things like aerosols, fluorescent lights, household chemicals and excess TV exposure. Any of these can cause problems in a sensitive child.

Heavy Metals

In Oxfordshire, 5000 children with ADHD had their blood, urine and hair tested for heavy metals and minerals. They found that on average they had **four times the levels of Aluminium of children without ADHD**, **three times the level of lead and six times the level of cadmium**. They had **quarter of the normal levels of chromium and half the levels of zinc and selenium**. Similar findings were found in a study in Argentina except levels of mercury were also raised in children with ADHD.

Hair analysis can be a fairly simple method of checking for levels of metals and minerals and can be done by specialised labs. It makes sense to supplement zinc, selenium and chromium. This will help reduce levels of heavy metals like aluminium, lead and cadmium. For additional measures to reduce toxicity see toxicity leaflet.

Nutrients – many hyperactive children are deficient in zinc, vitamin B6 and essential fats. Interestingly many additives cause zinc to be excreted in the urine in these kids. **Zinc** can be prescribed (usually 15mg daily). Zinc is especially important as it is known that hyperactive kids excrete it in large amounts in the urine after being exposed to additives and foods that they are sensitive to. Other key nutrients are manganese (usual dose 4mg daily) and vitamin B6 (usually 25mg daily) and vitamin D (2000iu daily).

Researchers at Cornenius University, Slovakia found **pycnogenol** at doses of 1mg per lb body weight given for one month caused a significant reduction in hyperactivity (evaluated by both teachers and parents).

It is known that **experimental animals deprived of nutrients can become hyperactive**. Dr William Kaufman noticed some patients treated with niacinamide (Vitamin B3) for arthritis became unaccustomedly calm and lost their sense of overstimulation. Dr Abram Hoffer started to treat hyperactive children and those with behavioural problems with **niacinamide** (giving 500mg to 1 gram three times day). This is a high dose but niacinamide is remarkable safe (up to 20 grams daily). This treatment nearly always led to a calming effect and a change to a more normal behaviour.

Essential fats are usually low and a clue to this is if they tend to be quite **thirsty or have dry skin**. The Omega 3 and 6 fats are nearly always low and need replacing. Start with an Omega 6 oil (often the most important in hyperactive kids) such as evening primrose oil and then add Omega 3 oils like fish oils or flaxseed oil. One study of Omega 3 fast in ADHD found a 30-40% improvement over 4 months. If they don't like the taste just put it on the skin as absorption is excellent through the skin. Unfortunately, essential fats can't be prescribed.

Apple cider vinegar has been shown to help with focus and concentration. Try 2 tablespoonfuls in a glass of water with a little honey.

Some kids need to take vitamin B6 but this may need to be given at a high dosage. There is a urine test called kryptopyrroles which will be abnormal if there is a zinc or B6 deficiency. Up to 60% of kids test positive. It is not available on the NHS. Specialised labs, such as Viva health, do this test.

Dr Patrick Kingsley's Method - he believed the brain was being irritated by certain foods and chemicals and developed a very effective regime. It involves changing the diet completely – stopping all the junk, additives, milk, soft drinks, chocolate, wheat and sugar and giving him only real food: fruit, vegetables, meat (unprocessed), fish (not fried or battered) and water. This will initially be very hard as hyperactive children crave these foods and refuse to eat the good foods. Dr Kingsley recommended remaining firm, it does not matter if he doesn't eat for a day or two as this is a change that will turn his life around. During this time Dr Kingsley suggests a rota to keep him occupied and away from harmful foods and sleeping with him after bedtime as he will likely try to sneak downstairs and eat the food he craves. Be prepared for two tough days but usually by the third day on this regime he will change back into a normal child and will eat the food you give him. After he is stable on this diet you can test suspect foods at intervals to find which trigger the abnormal behaviour.

Homeopathy – one recent trial of hyperactivity showed that three-quarters of hyperactive kids improved using homeopathy within 4 months. The book Ritalin Free Kids by Judyth Reichenberg-Ullman and Robert Ullman gives some remarkable case histories of kids who improved on homeopathic remedies. The downside is that homeopathic prescribing for hyperactivity is quite complex and needs a lot of skill. You may need to try several remedies before you get the right one.

HACSG – The charity Hyperactive Children's Support Group (HACSG) is an excellent resource for ADHD. It was founded by Sally Bunday in 1977. Her son suffered from hyperactivity and his illness improved vastly

once she put him on the Feingold diet, which removes food additives. She has incorporated research by Dr David Horrobin and Professor Neil Ward who discovered children with ADHD typically had important nutritional deficiencies, notably deficiencies of essential fatty acids and zinc. The website can be found at https://hacsg.org.uk, (although I understand it may not continue much longer).