

A SUMMARY OF WAYS TO ADDRESS ADHD

Hopefully without having to resort to medication
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A 2012 article in PLOS-1, an online peer-reviewed journal, suggests that the active ingredient in Ritalin (methylphenidate) may be causing injury to neurons in the long term.

This would fit with a number of recent reports about common medications. For example, in the last couple of years, we have been told that a drug used commonly for the treatment of diabetes actually causes cardiac deaths. A class of drugs used to lower cholesterol (statins) raise the risk of diabetes—this is in the setting of a global diabetes epidemic, when statins are among the most commonly prescribed drugs in the US. I'm afraid medicine just isn't making much sense to anyone these days.

How else then can we address serious issues such as ADHD?

ADHD (and autism, and autism spectrum disorders) represents the end result of a variety of possible impacts on the child's development. These disorders involve inflammation, which means that the immune system has something to do with it. They also involve genetics, as revealed by studies of family members and twins. They very much involve the environment, and are more common in populations exposed to certain pesticides, and to BPA (bisphenol-A, the plastic in receipts and the linings in cans).

ADHD involves problems with energy utilization within the brain. There are abnormalities on scans of blood flow to various parts of the brain. This does not tell us what causes these blood flow issues. There are also abnormalities in the way some parts of the brain work at the cellular level. Mitochondria seem to be affected. Neurotransmitters are most definitely affected.

ADHD involves problems with essential fatty acids. These are components of food that are assimilated by the body and used up to build cell membranes and other crucial working cell components. Certain essential fatty acids help regulate the immune system.

So, treatments that reverse ADHD have involved a variety of approaches. Each treatment may be weak on its own, but quite significant in combination with other treatments. Here's a long list, along with a little comment as to how they fit into the whole picture.

Diet plays a huge role. Some chemicals, such as artificial coloring, causes hyperactivity in "normal" children, and certainly make children with ADHD worse.

Elimination diets improve symptoms in a large majority of the kids who can actually stay on the diet (and a majority of kids do stay on the diet). Beliefs on various diets have come and gone. In a study published in 2011, where the kids were fed basically lettuce, turkey, pears and rice, 80% of the children lost their ADHD symptoms. That's a powerful approach, but what to do in the long term is the problem.

If ADHD involves significant inflammation, then it stands to reason that interventions that reduce inflammation would also reduce symptoms. Typically, there are 7 major steps to reducing inflammation:

1. The first is a return to a caveman (anti-inflammatory) diet: nuts, berries, fruits, vegetables, seeds and lean sources of protein. Watch out for the fish (mercury), and the animal protein should come from grass-fed, free-ranging animals. Lean is supposed to be better because pesticides accumulate even in organic animals, given their presence in the air we breathe.
2. The vitamin D status should be checked and corrected.
3. Essential fatty acids, usually in the form of high quality fish oil, are likely to work. One study reports giving more EPA than DHA, another reports giving more DHA, less EPA. It may simply depend on the child. A blood test for these could help guide treatment. This is rarely done in the research.
4. Multivitamins are a good idea because the child's need for antioxidants, B vitamins, zinc, magnesium, iron, and vitamins C and E is likely to be high. These vitamins and minerals are affected by stress levels, which tend to rise when someone's behavior is constantly a source of grief. Also, the antioxidants especially help protect the fatty acid supplements from harm within the body.
5. Exercise is an important component of treatment for ADHD. I think this is because exercise reduces stress and inflammation. It also helps the body make new mitochondria. Exercise affects the brain, allowing it to make new neurons, and connections between neurons.
6. Probiotics may be a good idea (I haven't seen published research here) because gut dysbiosis (the wrong bacteria) is an important component of inflammation. Getting the bacteria right could help heal the gut, which in turn would decrease potential for mischief from digestive issues. I know this is vague, but it appears that "bad" bacteria are making chemicals from food in our intestines, that then enter the bloodstream and affect behavior. Weird, but apparently true...
7. Direct stress reduction, such as the use of the HeartMath monitor, have also had some success. Meditation boosts connections in the prefrontal cortex, which is precisely one of the areas affected in ADHD.

Some researchers have seen success with medium doses of two amino acid precursors: 5-HTP and tyrosine. A majority of children begin to do better just days after starting on these supplements. Some of the children who don't respond at first, do finally respond when the doses of supplements are adjusted according to results of urine tests for amino acids.

There are more herbs and substances with research-proven efficacy. Of course, we don't know the long-term side effects of any of these approaches. However, given the unpalatable set of choices, whatever is closer to being "natural" and actually has a biochemical mechanism that makes sense is worth looking into.