



Vitamin D is created when our skin is exposed to sunlight. People with darker skin have difficulty getting enough, and the same is true for women whose skin is almost entirely covered with clothing. The vitamin is also obtained through food. Since most of the dietary source comes from animal-based foods, a strict vegetarian diet puts one at risk for a deficiency.

Preventing and treating ADHD

Turkish researchers found that children with ADHD and autism spectrum disorders have lower levels of vitamin D in their blood than normal controls.

[Garipardic et. Al., *Med Sci Monit.* Mar 2017]

Also from Turkey, Bala and colleagues report, “Our study results highlight the importance of supplementation of vitamins B12 and D in the ASD and ADHD patients.” [*J Pediatr Endocrinol Metab.* Sept 2016]

In a paper titled “Vitamin D and mental health in children and adolescents,” German researchers note the growing evidence that inadequate amounts of this nutrient are an important factor in mental disorders.

[*Eur Child Adolesc Psychiatry.* Sep 2017]

When they tracked vitamin D levels in the blood of newborns and looked at their development as toddlers, Danish scientists found that adequate amounts of the vitamin had a protective effect, reducing the chances of ADHD symptoms. [*Aust N.Z. J Psychiatry.* Jul 2017]

Not only is an infant at greater risk for low birth weight rickets, poor fetal growth and infantile eczema, but the mother is likely to suffer from osteoporosis and gestational diabetes.

Happily, supplementation with vitamin D3 is a low-cost way to help overcome these issues. [“Vitamin D deficiency in mothers, neonates and children.” Elson DH, Hammoud MS. *J Steroid Biochem Mol Biol.* Feb 2017]

Sunshine, Health and Behavior

The importance of Vitamin D3 in a child’s development and behavior is being studied around the globe.

Making Better Babies

Vitamin D plays a vital role in prenatal development, according to Michael J. Berridge of the U.K.’s Babraham Institute, and a lack of it can lead to problems like ADHD, autism and schizophrenia.

[*Am J Physiol Cell Physiol.* Oct 2017]

A study of 487 mothers and their children in Greece measured the mother’s vitamin D levels during the first prenatal visit. Then, at age 4, the child was evaluated to detect any cognitive or behavioral problems. Children of women who had high levels of vitamin D during their pregnancy had significantly fewer behavior and learning problems than the children whose mothers were low in the vitamin. The researchers conclude:

“Our results suggest that high maternal vitamin D levels in early pregnancy may protect against behavioral difficulties, especially ADHD-like symptoms at preschool.” [*Eur Child Adolesc Psychiatry.* Jul 2017]



Researchers from Iran have found that vitamin D can improve the outcome for children who are on ADHD medicines. [Mohammadour, “Effects of vitamin D supplement as adjunctive therapy to methylphenidate on ADHD symptoms: A randomized, double blind, placebo-controlled trial.” *Nutr Neurosci.* Dec 2016]

ADHD kids tend to do better during the summer vacation, but it might not be only because they are likely to have a less structured environment. Part of the reason for better behavior could be due to a greater exposure to sunshine.