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The Benefits of a Healthy Diet for Children with ADHD

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Family and Consumer Sciences

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A healthy diet is an important lifestyle component that protects against long term health problems such as heart disease and diabetes. But did you know that eating a healthy diet may also improve attention-deficit/hyperactivity disorder (ADHD) symptoms?

ADHD is a common brain-based disorder that affects nearly one in 10 children in the United States. It can affect the child's ability to organize, plan, and manage their thoughts and actions. Although an unhealthy diet does not cause ADHD, there are several reasons why a healthy diet may reduce ADHD symptoms:

1. The brain requires energy and many nutrients to function optimally, and a healthy diet supplies a higher amount of the most beneficial nutrients.
2. Research shows that many children with ADHD may have low levels of nutrients such as magnesium, zinc, iron, and omega-3 fatty acids, which are vital for brain function. These nutrients are reviewed later in this fact sheet.
3. Children diagnosed with ADHD have an increased chance of developing poor dietary habits in the future. Teaching children with ADHD healthy eating habits early in life may help change this.

What Does a Healthy Diet Look Like?

Healthy diets can play a key role in improving



ADHD symptoms. Examples of healthy diets include the Mediterranean and the dietary approaches to stop hypertension (DASH) diets. Eating according to the recommendations from the Dietary Guidelines for Americans (using the MyPlate tool) is also healthy. These dietary patterns/recommendations emphasize these healthy habits:

- eating lots of fresh fruits and vegetables
- eating whole grains instead of refined grains
- choosing healthy protein sources, like chicken and fish, and plant-based sources like nuts, seeds, beans, and lentils
- limiting sodium and added sugar

Nutrients Linked to ADHD Outcome

Magnesium, zinc, iron, and omega-3 fatty acids and B-vitamins are nutrients that are linked to ADHD and are critical to brain function. Omega-3 fatty acids are known to lower inflammation in the body and brain. Magnesium, zinc, and iron are nutrients that serve key roles in the function of neurotransmitters, chemical messengers in the brain. Neurotransmitters related to ADHD include dopamine and serotonin. A healthy diet provides more of these important nutrients, especially when you focus on consuming foods that contain elevated levels of these nutrients.

Omega-3 fatty acids

There is good evidence that omega-3s are effective in improving the symptoms of ADHD. Foods that are naturally high in omega-3s include fish such as salmon, tuna, and sardines; nuts and seeds like chia seeds, flax seeds, and walnuts; and plant oils including soybean and canola oil.

Iron



Figure 1. Teaching children with ADHD healthy eating habits increases their chances of maintaining healthy dietary habits in the future. Photo by Adobe Stock.

Research has shown that children with ADHD tend to have low iron levels compared to healthy children, and iron supplementation has been shown to improve both iron levels and ADHD symptoms in children. Foods that naturally contain iron are red meat such as pork and poultry, seafood, dark leafy green vegetables, beans, dried fruit, and peas.

Zinc

Zinc deficiency can cause symptoms similar to ADHD symptoms, including inattention, jitters, and delayed brain development. Research associates low zinc levels with diagnosis of ADHD, and that zinc supplementation can help ADHD symptoms in children with zinc deficiencies. Excellent food sources of zinc include meat, especially lean red meat, shellfish, seeds, nuts, dairy, and eggs.

Magnesium

Magnesium-rich foods include pumpkin seeds, almonds, cashews, spinach, and peanuts.

B-vitamins

Deficiencies in B-vitamins are associated with fatigue, irritability, anxiety, and decreased alertness. Great sources of B-vitamins include whole, enriched, and fortified grains; lean meats; leafy green vegetables; as well as poultry and eggs.

A diet of fruits and vegetables; healthy proteins including lean meat and fish/seafood; eggs; and a variety of seeds and nuts will naturally contain higher amounts of magnesium, zinc, iron, B-vitamins, and omega-3 fatty acids. Increasing consumption of these foods while reducing consumption of nutrient-poor foods and snacks can help your child avoid nutrient deficiencies and develop healthier habits later in life.

Additional Resources

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