### Diet

Diet can affect behavior. This handout talks about some common dietary issues and the effect (or lack of effect) of diet on caring for children with autism spectrum disorders (ASDs).

### Does sugar cause hyperactivity?

Despite earlier claims, scientific studies do not show a link between sugar and hyperactivity.

### Do food dyes cause hyperactivity?

Rarely, some younger children might become hyperactive after eating food with red and yellow food dyes. More study is needed to know how often and why this happens.

## How might the popular gluten-free, casein-free diet affect behavior?

Gluten is a protein found in grains such as barley, rye, oats, and wheat. Casein is a protein found in milk products. Gluten-free, casein-free diets are popular treatments that some families try to decrease symptoms of ASDs and improve development. Some parents feel that these diets make a difference. They say that these diets help children sleep better, make more formed bowel movements, and have better language and attention. Published scientific studies have not yet shown the results that families sometimes report. Young children change with educational treatment and over time, so it is hard to know for sure if a change is caused by any single treatment. This is especially true if many treatments are being used.

# What should we consider before trying a dietary treatment?

Before you begin a dietary therapy, identify behaviors you want to change and how you will measure them. If you choose to try other therapies, start them one at a time to find out the effects of each therapy before beginning another. Dietary and nutritional interventions may have behavioral effects and side effects, and those effects may be good or bad. The theory behind the gluten-free, casein-free diet is not based on an allergic response to food, so no specific lab testing is needed before starting such a diet. When thinking about dietary treatments for your child, consider cost and how your child may feel if she eats different foods than the rest of the family. Insurance plans will not pay you for the cost of special foods for a gluten-free, casein-free diet. Most importantly, consider your child's overall nutritional needs and how to provide a balanced diet within the diet chosen.

# How can we be sure our child gets the nutrients he needs on an altered diet?

Milk is the major source of calcium and vitamin D in children. Protein, iron, and vitamins are important parts of your child's diet. Gluten-free foods may not have extra vitamins like other grain products. Talk to a registered dietitian to help you decide whether nutrients might be missing from a gluten-free, casein-free diet and how your child can get these nutrients. Vitamins and supplements can provide missing nutrients, but those that have more than the recommended amount for a child's age may have side effects.

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# What challenges might be faced in following a gluten-free, casein-free diet?

(Note: This discussion does not serve as a medical endorsement of the gluten-free, casein-free diet.) If you are going to try a gluten-free, casein-free diet for your child, you will need to remove all foods with gluten and casein for a period of time. Simply cutting down on these foods is not really dietary elimination. Many families remove foods with casein first. Children with ASDs are often picky eaters. A vegetable beverage such as soy milk may not be accepted initially by your child. Sometimes mixing it with cow's milk at first helps.

The following tips may help you avoid some common pitfalls in following this diet:

- Learn to read food labels for hidden ingredients. For example, flavored soy milk may contain gluten in the flavoring.
- Look for labels that say pareve (kosher food label meaning no milk products) or DE (food label meaning no dairy but might have production exposure).
- Look for gluten in places you wouldn't expect it, such as malt, some food starches, corn or rice cereal, and nontoxic reusable modeling compound.
- Look for casein in some soy cheeses and many gluten-free products.
- Many products have Web sites that will tell you
  if they are gluten and milk free. Call the product
  manufacturers if you have a question. Check that
  any medicines or supplements your child takes
  are gluten and casein free.
- Don't expect results right away. No one knows how long this diet should be followed to know if it might be seen as helpful. Find a listing of gluten-free and casein-free products at www.gfcfdiet.com.

#### Resources

The Official GFCF Diet Support Group: www.gfcfdiet.com

Volkmar FA, Wiesner LA. *Healthcare for Children on the Autism Spectrum:* A Guide to Medical, Nutritional, and Behavioral Issues. Bethesda, MD: Woodbine House; 2004

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