

Gluten-Free, Casein-Free Diet

Rationale: Human digestive systems have not evolved on a diet containing high amounts of wheat and dairy products. Humans are the only animal who drink milk as adults, and the only animal to drink the milk of another animal. Cows milk is a perfect food for baby cows, but not for humans, especially past age of nursing.

Over the last several hundred years, wheat has been bred to greatly increase its gluten content, and a typical US diet contains far higher amounts of wheat than humans were eating 1000-10,000 years ago. Gluten (in wheat, rye, barley, and possibly oats) and casein (in all dairy products) can cause two problems:

1. They are common food allergens (see previous section), especially in children and adults with autism.
2. Certain peptides from gluten and casein can bind to opioid-receptors in the brain, and can have a potent effect on behavior (like heroin or morphine), causing problems including sleepiness, inattention/"zoning out", and aggressive and self-abusive behavior. Like opioids, they can be highly addictive, and a lack of them can cause severe behaviors.

These problems appear to be due to:

- 1) A failure of the digestive tract to fully digest the gluten and casein peptides into single amino acids
- 2) Inflammation of the gut, allowing the gluten and casein peptides to enter the bloodstream and reach opioid receptors in the brain.

Explanation of Treatment:

- Total, 100% avoidance of all gluten products and all dairy products. Even small amounts, like a bite of a cookie, can cause allergic and/or opioid problems. Many foods have trace contamination with gluten, such as dusting French fries and raisins with wheat powder to keep them from sticking, so it can be very difficult to avoid all foods and contaminated foods.

- Digestive enzymes can also be helpful, especially if there is an accidental exposure, but they are probably not as helpful as a total avoidance of casein and gluten.

- Many children with autism also benefit by removing corn and/or soy products.

Benefits:

Children who most crave dairy and/or wheat, and who eat a lot of it, are most likely to benefit. Casein-free diets usually produce benefits within a month, and sometimes within a week. Gluten free diets usually take 1-3 months to produce benefits. In some children there is a worsening of symptoms for a few days (similar to a drug withdrawal) followed by improvement.