

Aspartame in Children

Q: I am concerned about artificial sweeteners. My child loves to drink diet sodas, as he is somewhat overweight. He also finds other sodas too sweet. I am not comfortable with the thought of allowing artificial sweeteners in children's food. Should I be concerned?

A: Aspartame is one of the most popular artificial sweeteners on the market. It was discovered in 1965 by chemist James Schlatter, while working on a drug for ulcers. It is a potent sweetener - about 180 times sweeter than sugar - but has no calories. Aspartame can be found in diet drinks, chewing gum, breakfast cereals, packages of tabletop sweeteners and desserts.

The FDA (Food and Drug Administration) approved aspartame as safe for use in food products in the early 1980's (see www.FDA.gov). The FDA, based in Washington D.C., subsequently approved three other artificial sweeteners: saccharine, acesulfame potassium and sucralose.

Other independent health groups, such as the American Medical Association, American Diabetes Association and American Dietetic Association, as well as various government agencies, have concluded that foods and drinks containing aspartame are safe. More broadly, after extensive research, the World Health Organization (WHO) and the United Nations Food and Agriculture Organization both concluded that aspartame should be regarded as safe both in adults and children.

The FDA recommends no more than 50 milligrams of aspartame per kg of body weight per day. To reach this level, the average adult would have to drink 20 cans of a diet soft drink each day; a child would have to drink seven cans of diet soda. Research has shown that the average person consumes only 2 to 4% of the maximum recommended daily amount of aspartame. If a child were to drink one can of diet soda every day, it would be well within the safety margin established by the FDA, WHO or other medical associations mentioned above.

On its popular web site (www.kidshealth.org), the Nemours Center for Children's Health Media gives a useful summary of the average amount of aspartame in each serving of food:

- 360 ml of diet soda contains 225 mg
- 240 ml of sugar free yogurt has 80 mg
- 1/2 cup of sugar free frozen yogurt or ice cream contains 47 mg
- One packet of artificial sweetener exposes a consumer to 37 mg

All food products that contain aspartame are required to indicate its use on the label. This information is particularly useful to families who have a child with Phenylketonuria (PKU), a relatively rare but important metabolic disease (In virtually all parts of North America, newborn babies are screened at birth for this condition. It is important not to miss PKU because if left untreated, it may lead to neurological damage). Aspartame contains a compound called phenylalanine, which cannot be broken down in patients who have PKU. Therefore, people with PKU must diligently avoid aspartame.

A study done at Yale by Dr. B. Shaywitz, a renowned investigator in the field of children with attention deficit and hyperactivity disorders, looked at the role of aspartame on behavioral and cognitive function. The findings indicated that when aspartame is consumed at 10 times the usual level, it had no effect on the behavioral and cognitive status of children with attention deficit disorder.

Another study done in Toronto in 1990 investigated the effects of aspartame on learning, behavior and mood. The authors concluded there was no negative impact (*Pediatrics*, 86 (1), pp. 75-83).

Regardless of all of the reassurances from the FDA, WHO and various other medical associations, ongoing concerns of the safety of aspartame remain.

At a recent American Academy of Pediatrics Meeting in Washington D.C., I was given a copy of *The Artificially Sweetened Times* (see www.dorway.com). A headline on the front page caught my attention: "Harmless synthetic sweetener or government-approved poison?". In this article, the FDA's approval of aspartame is questioned as being a matter of industry successfully lobbying the government. In addition, some people have alleged that aspartame is linked to birth defects, multiple sclerosis, Parkinson's disease, bladder cancer and brain tumors. So far, there are no definitive studies to validate these concerns.

In 1998, the FDA approved another sweetener, sucralose, which is about 600 times sweeter than sugar (In 1991, Canada became the first country to approve sucralose, also known as Splenda). Its use was approved in baked goods, baking mixtures, chewing gum, puddings, jams, jellies, fruit juices, toppings, syrups, confections and frostings.

In determining the safety of sucralose, the FDA reviewed data from 110 studies in humans and animals. Many of the studies were designed to identify toxic effects such as cancer, reproductive defects and neurological damage. No such effects were found.

For those families who still distrust the FDA on the safety record of aspartame and other artificial sweeteners, a useful resource called "Everything You Need to Know About Aspartame" can be found at the International Food Information Council (IFIC) website:
<http://www.ific.org/publications/brochures/aspartamebroch.cfm>

Access www.healthykids.ca for a terrific new resource in helping families raise healthy children---
HealthyKids with Dr. Nieman will optimize your child's complete health.

An **informed** parent is . . . an **empowered** parent.