



Childhood diabetes

The new epidemic

Karen Jensen, ND

The prevalence of obese and overweight children is increasing around the world. Obesity is one of the biggest risk factors for diabetes, increasing risk by as much as 93 percent.

The Canadian Medical Association Journal reported that between 1981 and 1996, the prevalence of overweight boys increased from 15 to 35.4 percent and among girls from 15 to 29.2 percent.

Type 1 diabetes

In the recent past, children diagnosed

with diabetes had type 1 diabetes (juvenile diabetes), an autoimmune condition thought to be caused by genetics, viruses, diet, or stress. These factors compromise the production of insulin by the pancreas to the extent that the child requires insulin medication. Other causes of type 1 diabetes are also being studied.

Cow's milk, soy milk, and vaccines are being studied as possible causes of type 1 diabetes. Research has shown that cow's milk can trigger insulin-dependent diabetes in children who are prone to the disease. The data is so intriguing that Canadian researchers have begun an even larger study on

thousands of children at 14 diabetes centres across Canada.

Scientists have known for years that isoflavones in soy products can depress thyroid function, but researchers at Cornell University Medical College reported that twice as many diabetic children received soy formula in infancy as nondiabetic children. Soy formula can be a lifesaver for babies allergic to cow's milk, but goat's milk may be a better alternative because it is closer to the nutritional composition of mother's milk.

"The average teenager is getting 15 to 20 teaspoons of added sugar per day from soft drinks alone."

The *New Zealand Medical Journal* (1996) reported a 60-percent increase in type 1 diabetes following a massive campaign to vaccinate babies six weeks of age or older with hepatitis B vaccine. Additional data supports a causal relationship between many different vaccines including pertussis (whooping cough), mumps, rubella, hepatitis B, and hemophilus influenza. The data indicates that people with vaccine-induced diabetes may not develop the disease until four or more years after receiving the vaccine.

Diabetes management

Children's lifestyles are controlled by parents. Your family's lifestyle not only affects your children today but establishes the pattern for their teen and adult years and even how your children will feed their children and grandchildren. A big responsibility!

If you consider some very simple dietary adjustments, the weight-control issue becomes more manageable. An extra soft drink a day gives a child a 60-percent greater chance of becoming obese. Instead of being encouraged to drink water, children are allowed to drink sugar-sweetened beverages such as soft drinks or water flavoured with sweet, chemical crystals. It is estimated that the average teenager is getting 15 to 20 teaspoons of added sugar per day from soft drinks alone. Consumption rates of soft drinks among children have doubled in the last decade. This "liquid candy" places the child in double jeopardy: the drinks lack nutrients and raise the blood sugar level rapidly, which leads to elevated blood insulin, a precursor to diabetes.

Parents of diabetic children also should recognize the need for small amounts of protein foods in every meal. If a child has a craving for sweets, it may indicate a lack of protein in the diet. Protein and fat also slows the rate of sugar absorption. A meal with a large amount of protein, fat, or fibre takes more time to digest and raises blood glucose levels less quickly than a pizza does. Research shows that, gram for gram, sugars like table sugar do not raise blood glucose more quickly than other carbohydrates like potatoes, rice, or pasta.

Make lifestyle changes a family project. Don't expect your child to "just say no" if the parents say "yes" to pop, french fries, and heavy desserts. Begin a family exercise plan, including such activities as hikes on weekends or walks after work. You will all benefit from it. If dietary change is approached with rational, small steps and a positive attitude, no one will ever feel deprived.





Healthy lifestyle choices for diabetes

- Drink water, NOT juice, pop, or flavoured-crystal beverages.
- Eat whole grains and legume carbohydrates high in fibre such as squash, sweet potatoes, brown rice, yams, lentils, beans, buckwheat, flaxseed, and oat bran.
- Add chromium-rich foods to your diet: brewer's yeast, lean beef, calf's liver, rye bread, and potatoes. Chromium is called the "glucose tolerance factor," and research shows that it is needed to allow insulin to do its work in getting sugar into the cells.
- Get green leafy vegetables into the daily menu.
- Spices such as garlic, onions, turmeric, bay leaf, burdock, cloves, and cinnamon help to regulate blood sugar. New studies suggest that a teaspoon a day of cinnamon may prevent the onset of diabetes.
- Eat high-quality protein with each meal: fish, free-range chicken or beef, lamb, or eggs. Offer nuts and protein shakes or bars as snacks.
- Replace dairy cow products with goat's milk, cheese, or yogourt.
- Eat smaller, more frequent meals.
- Bake with stevia (a natural sweetener available in health food stores) rather than sugar.
- Foods high in omega-3 and -6 fatty acids such as salmon, herring, mackerel, sardines, walnuts, flaxseed oil, or borage oil can prevent cardiovascular complications attributed to diabetes.
- Drink green tea, an effective antidiabetic herb.
- Just 30 minutes a day of moderate physical activity has been shown to result in a five- to 10-percent reduction in body weight and produced a 58-percent reduction in the incidence of diabetes.
- Vitamins E, C, and B complex and chromium are useful in curbing diabetes.
- Herbs traditionally used for diabetes include: prickly pear cactus, fenugreek, bitter melon, *gymnema sylvestre* leaf, and panax ginseng. Ask your naturopathic doctor or health food store consultant about the appropriate use and dosage for your child.

Type 2 diabetes

In type 2 diabetes, the pancreas produces insulin, but not enough, and the muscles and tissue become resistant to insulin. The incidence of type 2 diabetes (adult-onset diabetes) in children has also risen significantly in recent years along with the high prevalence of obesity. The American Diabetic Association says the increase is at "epidemic levels." Abnormally high insulin levels are showing up in children as young as four years old. Type 2 diabetes can most often be treated with lifestyle and dietary changes.



Currently there is no cure for diabetes, but for children with type 1 diabetes, healthy food choices may reduce the level of insulin required to regulate their blood sugar levels.

Feeding and caring for a diabetic child can certainly bring challenges. However, the good news is that there are numerous support and research groups and books that can help you. One such organization is the Juvenile Diabetes Research Foundation. jdrf.ca.

"An extra soft drink a day gives a child a 60-percent greater chance of becoming obese."

Books for further reading include:

- *The Schwartzbein Principle* by Diana Schwarzbein, MD and Nancy Deville (Health Communications Inc., 1999).
- *Natural Treatments for Diabetes* by Kathi Head (Random House, 2000).
- *Reversing Diabetes* by Julian Whitaker, MD, (Warner Books Inc., 2001). ☐

Karen Jensen, ND, author of *No More HRT: Menopause, Treat the Cause* (Fitzhenry & Whiteside, 2002) and *The Complete Athlete* (alive Books, 1998), practises in Vancouver, BC. drkarenjensen.com.

Copyright of Alive: Canadian Journal of Health & Nutrition is the property of Canadian Health Reform Products Ltd. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.