

Diabetes in Kentucky

Type 1 Diabetes

In 2005, approximately 8.9 percent of Kentucky's adult population had been diagnosed with **diabetes**. **Diabetes** is the number one cause of disability for Kentuckians and the fifth leading cause of death by disease. Among the 50 states, Kentucky ranks seventh for having the highest number in the adult population diagnosed with **diabetes**. The cost of **diabetes** in both life and medical care is alarming. In 2002 approximately 2.9 billion dollars was spent on treating **diabetes** in Kentucky. Preventing this catastrophic disease is a priority. An estimated 40.1 percent of Kentuckians (adults aged 40 to 74) have pre-diabetes and may develop type 2 **diabetes** within 10 years if they do not change lifestyle habits. Identifying those at risk for **diabetes** is one of the keys to reducing both the disease and cost of this disease in Kentucky.

What is type 1 diabetes?

Type 1 diabetes was previously known as insulin-dependent or juvenile **diabetes**. Approximately 5 to 10 percent of the U.S. population diagnosed with diabetes has **type 1 diabetes**. **Type 1 diabetes** is due to improper immune function of the body. It belongs to a group of diseases known as **autoimmune** (our own body turns upon itself). The immune system attacks special cells in the pancreas (the organ where **insulin** is produced) known as **beta cells**, destroying the body's ability to make **insulin**. **Insulin** is a hormone that helps the glucose in the blood enter into the body's cells, where it is either used immediately for energy or stored for later use. Without **insulin** the blood glucose builds up in the bloodstream, resulting in **diabetes**. **Type 1 diabetes** occurs because the body is not making any **insulin**. It generally starts in childhood and early teen years but can also begin in adulthood.

What are the signs and symptoms of type 1 diabetes?

Onset of type 1 diabetes is generally acute (sudden) and may include nausea and vomiting, frequent skin and bladder infections, and vaginitis (infection of the vagina). Other common symptoms include:

- Frequent urination (having to go to the bathroom more often than usual for no apparent reason).
- Excessive thirst (even after drinking an adequate amount).
- Fatigue (feeling tired).
- Extreme hunger (when you normally should not be hungry). This is not seen in children as much as in adults.
- Unusual weight loss (not explained by dieting or increased physical activity).
- Blurred vision resulting from fluid leaking into the lens of the eye from elevated blood glucose. This condition causes the lens of the eye to swell making it unable to focus properly. This condition may occur at the onset of diabetes or during periods when blood glucose fluctuates. It passes with time or when blood glucose levels decrease.
- Dry, itchy skin.
- Tingling or numbness in feet (may be a sign of damage to the blood vessels or nerves in your feet due to undiagnosed or untreated **diabetes**).

These signs and symptoms may indicate **diabetes** (although you may have no signs and symptoms). Your health care provider is the **ONLY ONE** who can make the diagnosis. **DO NOT** rely on symptoms only.

What are the risk factors for type 1 diabetes?

- Family history.
- History of autoimmune disease.
- History of childhood viruses.
- Northern European or Mediterranean ancestry.
- Born to an older mother.

Ways to manage type 1 diabetes

Currently there is not any way to prevent or slow progression of **type 1 diabetes**, although there are four steps to managing this disease, which include:

Monitoring

- Includes measuring blood glucose four or more times daily.
- Getting *Diabetes Self-Management Training* through one on one education or group classes.
- Having regular doctor checkups.
- Visiting your eye doctor yearly.
- Checking your feet daily for signs of infections and/or injury.
- Promptly reporting any new health problem to your health care provider.

Taking Medication

- May include insulin pump or two or more insulin injections a day.

Healthy Eating

- Includes attention to food intake by making healthy eating choices.

Being Active

- Includes regular physical activity (at least 30 minutes a day, every day).

References

American Diabetes Association (2007) Type 1 diabetes. Available online at <http://www.diabetes.org/type1-diabetes.jsp>.

Centers for Disease Control and Prevention (2005) Preventing chronic diseases: investing wisely in health, preventing diabetes and its complications. Available online at <http://www.cdc.gov/nccdphp/publications/factsheets/Prevention/pdf/diabetes.pdf>.

Centers for Disease Control and Prevention (2006) Prevention research centers: diabetes prevention and control. Available online at <http://www.cdc.gov/prc/pdf/PRCdiabetesfactsheetsummer2006.pdf>.

Kentucky Department of Public Health (2007) Diabetes Prevention and Control Program. Available online at <http://chfs.ky.gov/dph/ach/diabetes.htm>.

Kentucky Department of Public Health (2005) Kentucky Diabetes Fact Sheet. Available online at <http://chfs.ky.gov/dph/ach/cd/diabetesfactsheets.htm>.

Kentucky Department of Public Health (2005) Impact of diabetes on the Commonwealth of Kentucky. Available online at <http://chfs.ky.gov/NR/rdonlyres/6C9E500DE-C771-4305-BDE1-ACA63E9DA972/0/BurdenDoc05.pdf>.

This is a publication in a five-part series on diabetes. Other publications in this series are:

- General diabetes information: HSW-PAR.814
- Pre-diabetes: HSW-PAR.815
- Type 2 diabetes: HSW-PAR.817
- Gestational diabetes: HSW-PAR.818

Peggy Riley, RN, MSN
Extension Health Specialist for Nursing

November 2007

Copyright © 2007 for materials developed by University of Kentucky Cooperative Extension. This publication may be reproduced in portions or its entirety for educational or nonprofit purposes only. Permitted users shall give credit to the author(s) and include this copyright notice.

Educational programs of Kentucky Cooperative Extension serve all people regardless of race, color, age, sex, religion, disability, or national origin.

UK
UNIVERSITY
OF KENTUCKY
Health Education
through
Extension Leadership