



Wellness-Fitness Program Newsletter



November 2007

American Diabetes Month

Diabetes is now a worldwide epidemic. In the United States it is estimated that 21 million people have diabetes. Another 54 million have blood glucose (sugar) levels that are too high – a condition known as pre-diabetes.

One out of every four Americans may be affected and the numbers are rising. In the ten-year period from 1990 to 2000, diabetes increased by 49 percent and is projected to increase a whopping 165 percent by the year 2050.

Left untreated, pre-diabetes is likely to develop into diabetes, which significantly increases the risk for heart attack and stroke. The good news is that diabetes is preventable and controllable.

The onset of diabetes is a gradual process. There may be no symptoms at all for many years and worse, the collection of symptoms can be so subtle that they are rarely even noticed, are often dismissed, or attributed to daily problems and pressures.

Symptoms of high blood sugar can include poor healing of cuts and scratches, reoccurring yeast infections, susceptibility to infections, fatigue, blurry vision, and even irritable mood. As the disease progresses, thirst, excessive urination, extreme hunger, and possibly weight loss can be added to the list of complaints.

The key to beating the diabetes epidemic is prevention, early detection, and careful post-diagnosis disease management. The U.S. Department of Health and Human Services (HHS), the *National Diabetes Education Program (NDEP) and the American Diabetes Association (ADA) have partnered to battle this crippling epidemic.

** NDEP is co-sponsored by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) (www.ndep.nih.gov) and the Centers for Disease Control and Prevention (CDC).*

First Line of Defense

Against Diabetic Eye Disease

Diabetes and high blood sugar damages the cardiovascular system at the microscopic level. As a result, people with diabetes are at risk for developing a variety of eye diseases.

Those who have been diagnosed with diabetes are 60 percent more likely to develop cataracts and 40 percent more likely to develop glaucoma. Diabetic retinopathy is the leading cause of blindness in the U.S.

In the case of diabetic retinopathy, long-term, uncontrolled high blood sugar slowly weakens the delicate blood vessels in the eyes. Eventually microscopic ruptures cause blood to leak into the retina causing irreversible changes in vision and finally blindness if not treated. Catching diabetic

retinopathy early – before vision impairments become permanent – is tricky because there is no pain and there are virtually no symptoms until persistent blurry vision (resulting from vascular hemorrhage) drives you to the eye doctor.

Your first line of defense in preventing blindness is a dilated eye exam. With a dilated eye exam, the doctor is able to detect even subtle changes to blood vessels in the eyes. Even if you have 20/20 vision, consult with your doctor about getting routine dilated eye exams.

Learn more about Diabetic Retinopathy at the National Eye Institute:

<http://www.nei.nih.gov/health/diabetic/retinopathy.asp>

Millions Have 'Pre-Diabetes'

According to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), about 54 million American adults have pre-diabetes, also known as impaired glucose tolerance. This is a condition where the blood sugar level is higher than normal, but not persistently high enough to be considered type 2 diabetes.

If you don't know your blood glucose levels, find out. If you already know that you have pre-diabetes, you can delay or even prevent type 2 diabetes by losing weight, controlling your diet, and getting regular exercise.

Health risks associated with pre-diabetes

According to the American Diabetes Association (ADA), if you have pre-diabetes, you are at a 50 percent higher risk for developing heart disease and stroke.

Are you at risk for developing pre-diabetes? The risk factors for pre-diabetes include:

- Being overweight or obese. A body mass index (BMI) of 25 to 29.9 is considered overweight, and a BMI of 30 or higher is obese
- A family history of type 2 diabetes
- Being an African American, American Indian, Hispanic American or Asian American
- Low HDL cholesterol and high triglycerides
- High blood pressure
- A history of gestational diabetes

What to do

If you have pre-diabetes, work with your health care provider on lifestyle changes you can make. If you're

overweight, losing weight can reduce your risk of developing type 2 diabetes. Even a loss of eight to ten pounds can make a difference.

Aim for a BMI no higher than 27; less than 25 is ideal. Your Federal Occupational Health (FOH) Wellness/Fitness professional can help you develop a personalized exercise program.

What the numbers mean

Two types of tests can determine whether you have pre-diabetes: Fasting plasma glucose test (FPG) or the oral glucose tolerance test (OGTT). If either of these is abnormal, you may have impaired glucose tolerance or pre-diabetes.

Here's what overnight fasting (eight hours or more of fasting) blood sugar numbers mean (according to CDC guidelines). Doctors measure blood sugar in milligrams per deciliter (mg/dL):

- Normal: Below 100 mg/dL
- Pre-diabetes: 100 to 125 mg/dL
- Diabetes: 126 mg/dL and above

Here is what oral glucose tolerance blood sugar numbers mean (according to the ADA):

- Normal: Below 140 mg/dL
- Pre-diabetes: 140 to 199 mg/dL
- Diabetes: 200 mg/dL and above

Diabetes prevention is possible with dietary modifications, exercise, and weight control. Start by visiting your participating FOH work-site Health Center or Wellness/Fitness Center.

Visit the NDDK at <http://www2.niddk.nih.gov>.

When you cease to dream you cease to live.

- Malcolm Forbes

Maintain Your Weight Once You've Quit Smoking

Diabetes prevention and quitting smoking go hand-in-hand. Because both tobacco and diabetes damages the cardiovascular system, the two in combination can be devastating.

So, on November 15th, join a nation of quitters and give it up for the Great American Smokeout.

Why quit now? Why quit at all? Here are some very good reasons according to the American Diabetes Association (ADA).

- Smoking cuts the amount of oxygen reaching tissues. The decrease in oxygen can lead to a heart attack, stroke, and pregnancy problems.
 - Smoking damages and constricts the blood vessels. This damage can lead to or worsen blood vessel disease and leg and foot infections.
 - Smokers with diabetes are more likely to get nerve damage and kidney disease.
 - Smokers get colds and respiratory infections easier. People with diabetes have impaired healing abilities.
 - People with diabetes who smoke are three times as likely to die of cardiovascular disease as are other people with diabetes.
 - Smoking raises your blood sugar level, making diabetes control and prevention more difficult.
- Exercise regularly; at least 30 to 60 minutes on most days of the week.
 - Decrease fat intake by substituting lower-fat foods for high-fat ones such as skim milk instead of whole milk or mustard instead of mayonnaise.
 - Drink plenty of water, and low calorie fluids. Low calorie alternatives to water include diet soft drinks, coffee, tea, skim or 1% milk, and fresh fruit (fruit is high in water content).
 - Snack on high-fiber foods, such as air-popped popcorn, carrot sticks, celery sticks, raisins, apples, and grapes.
 - Chew sugarless gum or suck on sugarless hard candies when you crave sweets.
 - Brush your teeth or suck on a breath mint as soon as you finish a meal. This will make you less likely to have dessert.
 - Do something else when a craving for food hits. Try calling a friend, taking a walk, reading a book, or working on a project.

If you're worried about the health effects of gaining weight after quitting, try some of the following suggestions to help you maintain your weight after you stop smoking:

Remember that your workplace Employee Assistance Program (EAP) is available to help and support you when you make significant changes in your life.

Visit your FOH Wellness/Fitness Center for more ideas on how to maintain weight after quitting tobacco.

For more information about diabetes and smoking visit the ADA website at: <http://www.diabetes.org>.

Get help quitting at www.smokefree.gov.

National Institutes for Health:

“Omega-3 Fatty Acids

Protects Eyes against Retinopathy”

Could the cave dwellers have been right?

Early humans ate fish, shellfish, freshly killed meat from animals that lived off the grasslands – and virtually no grains. Now it appears that such a diet may provide just the balance of omega-3 and omega-6 fats to win the fight against sight-destroying eye diseases.

Both omega-3 and omega-6 are “essential” fatty acids, meaning the body needs them for normal growth but cannot produce them. However, only a small amount of each is needed in the diet.

In a study that appeared in the July 2007 issue of the journal *Nature Medicine*, researchers found evidence that omega-3 fatty acids may play a role in protecting against the development and progression of retinopathy, a deterioration of the retina in which blood vessels swell and leak fluid or grow abnormally on the surface of the retina, and age-related macular degeneration (AMD), a leading cause of vision loss in Americans 60 years of age and older.

Researchers from the National Institutes of Health (NIH) are collaborating with researchers nationwide and abroad to find ways to prevent these crippling retinal diseases.

This preliminary study using mice – which have similar eye metabolism as do humans – found that consuming more omega-3 than omega-6 fatty acids may actually reduce the deterioration of retinal blood vessels and subsequent growth of the abnormal vessels which eventually lead to blindness.

What this study suggests is that a change in the balance in favor of omega-3s may be beneficial to those at risk of developing diabetic retinopathy.

Omega-3s come from fatty fish (mackerel, lake trout, herring, sardines, albacore tuna, and wild salmon); seeds and some nuts; and beef from grass-fed cows.

Sources of omega-6 fatty acids include cereals; grains; most vegetable oils; nuts; eggs; and poultry. Many foods early humans had little access to.

If you are at risk of developing diabetic retinopathy, consider taking a cue from the caveman and swap that pizza for grilled fish a couple of times a week. Just a little omega-3 seems to go a long way toward improving health. The recent research suggests that adding omega-3s to the diet might decrease retinopathy progression by nearly 50 percent.

How often should you have an omega-3 meal? According to the American Heart Association (AHA), a meal that includes fatty fish at least two times a week should suffice.

As always, consult your medical provider before making any significant dietary changes.

Read the AHA recommendations online:
<http://www.americanheart.org/presenter.jhtml?identifier=4632>

Read the NIH report online at:
<http://www.nih.gov/news/pr/jun2007/nei-24.htm>

FOH, the Occupational Health Provider of Choice for the Federal Government

The mission of FOH is to improve the health, safety, and productivity of the federal workforce. Created by Congress in 1946, FOH is a non-appropriated service agency within the U.S. Department of Health and Human Services (HHS), Program Support Center.

Federal agencies throughout the U.S. and overseas can access FOH services. FOH provides worksite health services, Wellness/Fitness, Employee Assistance Programs (EAP), Work/Life, Environmental Health and Safety, Organizational and Professional Development, and Training and Education.

Contact FOH at (800) 457-9808 or visit us at www.foh.dhhs.gov.
