Commission on Aging

Senior Update

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DIABETES

by Mary S. Kaufmann, M.A.

Diabetes is a horrible disease. It's a lot like high blood pressure and osteoporosis in that it can sneak up on you and be doing lots of damage internally without you being fully aware that you have a problem. It is not contagious. You cannot "catch" it from any one else.

It is for this very reason that, in February, the Food and Drug Administration (FDA) Office of Women's Health in conjunction with the National Association of Chain Drug Stores and the American Diabetes Association is presenting a new awareness campaign: ***Take Time To Care…About Diabetes.***

Simultaneously the U.S. Health and Human Services is piloting an educational program in 10 communities throughout the country – Oakland is one of the chosen areas. This "Diabetes Detection Initiative (DDI): Finding the Undiagnosed" hopes to create a healthier, prevention-oriented society. The primary goals of the DDI are to increase blood testing for individuals who are at high-risk for diabetes and to increase diagnosis for those with unrecognized diabetes.

Why is this important? Diabetes is now the ***sixth leading cause of death in the United States.*** In 2002 it cost the nation $132 billion. Early diagnosis and proper treatment of diabetes can delay and even prevent the very serious health problems that are caused by this disease, i.e., heart disease, stroke, blindness, lower limb amputations, and kidney failure.

What types of diabetes are there? There are two main types of diabetes. Most of us think of them as *Juvenile-onset diabetes*, affecting those generally under the age of 20, and *Adult-onset diabetes*. Well, the names have been changed. We now have Type I diabetes (previously juvenile-onset) and Type II diabetes (previously adult-onset). The upcoming DDI program is aimed at the ***pre-Type II diabetics*** (a state between "normal" and "diabetic"). Here are the primary differences.

Diabetes I. Individuals with Diabetes I are totally dependent on insulin. This is an autoimmune disease which means that the body turns against itself. The immune system attacks the insulin-producing beta cells in the pancreas and destroys them. The pancreas is thus not able to produce any insulin and it has to be supplied daily in order for the person to live. Prior to the discovery of insulin in 1921, everyone with Type I diabetes died within a few years after diagnosis. The disease usually affects people before the age of 20 and is generally considered hereditary. It occurs equally among males and females, but it is more common in whites than in nonwhites. Type I accounts for about 5-10% of all diagnosed diabetes in the United States.

Diabetes II. This type is non-insulin-dependent, i.e., it can sometimes be controlled by diet and/or oral medications. The pancreas does function, but it either produces too little insulin to be effective or the cells in the body are unable to respond to the insulin that is produced. Originally this was referred to as "adult-onset" because it was rarely seen in individuals until after age 40. That is no longer the case. Recent news reports have confirmed that our teenagers have higher rates of obesity than those in 14 other industrialized countries, including France and Germany. With increasing levels of obesity and sedentary lifestyles this disease is now showing up more and more in teenagers and even in children as young as 10! It is more common in overweight older people, and occurs most often in other ethnic groups. This is the most common form of diabetes and accounts for 90-95% of diagnosed cases.

What exactly is the role of glucose/sugar and insulin? Your body converts most of the food you eat into sugar. Glucose is a simple form of sugar that enters the blood from the intestines after digestion. The blood then carries the glucose around the body to various tissues, such as the muscle cells. There it is converted into energy so your body can do what it needs to do.

Insulin is a hormone that is made by your pancreas, a gland found behind the stomach. When everything functions properly, the pancreas automatically produces the right amount of insulin to move glucose from your blood into your cells. Then the pancreas sends a signal telling your body's cells to let sugar in

from the bloodstream. Only then can the sugar provide the energy your body needs to work.

With diabetes II, one of two things happen. Either the pancreas does not make enough insulin, or the cells don't receive the signal and won't let the sugar into the cells. This is called "insulin resistance," and is the primary factor in 90% of all cases of Diabetes II.

The bottom line is that if the glucose/sugar cannot get into the cells, it remains in the bloodstream. Although some of it is excreted in the urine and leaves the body, the glucose levels can continue to rise and the excess sugar can lead to diabetes and related complications.

What are some of the potential complications of diabetes? Diabetes is considered a silent killer and people do not realize how serious it is. It is the leading cause of adult blindness, kidney failure and amputations and contributes to heart attacks and strokes. There are over 350,000 diabetes-related hospitalizations each year in California, at a cost of $4 billion annually. Reports for 2000 indicate diabetes contributed to 24,520 deaths in California. This is probably underestimated because diabetes is not often listed as a cause of death in deference to the more obvious causes, such as heart attack.

Diabetes can also develop during pregnancy, and birth defects are more common in babies born to women with diabetes. Women who develop gestational diabetes have a 20-50% chance of developing type II diabetes within 5 to 10 years.

Who is most likely to be **at risk** for Diabetes II? The cause of Diabetes II is unknown, although like Diabetes I, it seems to run in families. There are 17-18 million people in the United States with diabetes, 90% of them with Diabetes II. During the 1990s the prevalence of Diabetes II increased by **33 percent** overall and by **70 percent** among people in their 30s. This dramatic increase is attributed to the *increase of obesity and the lack of physical activity*. There is also a higher risk if you are African American (25% of African-American women over 55 have the disease), Hispanic (about 24% in the U.S. have diabetes), American Indian (50% of adults between 30-64 in one Arizona tribe are affected), or Asian American/Pacific Islander (26% of Puerto Ricans between 45-74 have diabetes). Since Hispanic Americans and other minority groups make up the fastest-growing segment of our population and we are becoming increasingly overweight and sedentary, it is predicted that by 2025, **8.9 percent** of the population will be diabetic.

Overall, here are the factors that put you at risk for Diabetes II. If you have ***any*** of these risks factors you should be aggressive and ask to be tested for diabetes. If the tests are normal you should be retested every three years, sooner if more symptoms arise.

1) Physically inactive; 2) Obese (20% above a health body weight); 3) Advanced age (generally over age 45); 4) Unhealthy diet; 5) Improper functioning of the pancreas; 6) Ethnicity (see above); 7) Medications (cortisone; some blood pressure meds); 8) Parent, brother or sister with diabetes; 9) Women, if babies weighed more than 9 lbs.; 10) Women who developed gestationable diabetes.

What is considered a healthy diet? The American Diabetes Association (ADA) recommends the following daily dietary guidelines:

*Up to 70% of all calories should be obtained from carbohydrates and unsaturated fats. Carbohydrate examples are vegetables, breads, juices, cereals and desserts and naturally occurring sugars (in milk and fruits). Carbohydrates raise your blood sugar the most. Examples of unsaturated fats are vegetable oils and margarine.

*Between 10 and 20% of calories should be obtained from protein.

*Less than 10% of all calories should be obtained from fat. Saturated fats to avoid are found in animal products and in some vegetable oils, such as coconut, palm, and palm-kernel oils.

*Eat 30 to 35 grams of fiber daily (fruits, vegetables, beans, breads, and cereals).

*Eat no more than 300 mg of cholesterol daily.

For those with Diabetes I, individuals often need to have three meals and two or three snacks a day. These are eaten at set times so that the insulin levels will remain in balance.

Can Diabetes II be avoided? Lifestyle changes can definitely increase your chances of preventing or delaying the onset of Type II Diabetes.

***Exercise –** Vigorous exercise, even once a week has a protective effect. One study showed that 30 minutes of physical activity, usually walking or other moderate intensity exercise, reduced risk by 58%.

***Lose weight –** Adult women who gain 11-17 pounds after age 18 double their risk of diabetes; 18-24 pounds almost triples the risk. In fact, 90% of diabet-

ics are overweight. In the exercise study above, the 30 minutes of physical activity resulted in a loss of 5-7% of body weight. So it doesn't take a lot of exercise to be beneficial.

***Diet –** This was discussed earlier. Use a diet low in calories and saturated fat.

***Stop Smoking –** Smoking is especially dangerous since you are already at risk for heart and blood vessel diseases.

***Alcohol –** Use in moderation only – maximum of 2 drinks for males and 1 drink for females. Dry wines and light beers are best. Use sugar free diet drinks, club soda, seltzer or water as mix.

What are the symptoms for **pre-Type II diabetes?**

*going to the bathroom a lot
*feeling hungry or thirsty all the time
*blurred vision
*losing weight without trying
*cuts/bruises that are slow to heal
*feeling tired all the time
*tingling/numbness in your hands or feet
*irritability
*nausea and vomiting

As you can see, individually, these are not very earth shattering symptoms and that is why so many people have diabetes and don't know it. It is estimated 18.2 million people (9.1 million women) have diabetes and 6 million of them don't even know it. In California alone, over 2 million have diabetes and it is estimated 600,000 of these are also undiagnosed. This number is expected to double by the year 2020. Increasing blood testing for individuals who are at high risk and increasing the diagnosis for those with unrecognized diabetes is becoming more and more urgent if we are to overturn the tremendous increases we are experiencing in this terrible, chronic disease.

Most people discover they have diabetes while being treated for something else – heart disease, blood vessel disease, stroke, blindness, skin ulcers, kidney problems, nerve trouble or impotence.

What kinds of tests would you have to take? There are a number of lab tests that your doctor could order. The most common tests are a urine test, blood test, glucose-tolerance test, or a fasting blood sugar test. These tests give a picture of the amount of glucose in your blood, your body's ability to process glucose, or blood sugar levels over periods of time. Once the results are in and if you *are* determined to be **pre-Type II diabetic**, you can take charge of controlling your glucose levels *immediately* by beginning an exercise program and watching your diet. Generally, if after 3 months you are unable to bring your levels down to normal, your doctor will probably prescribe an oral medication. In a large prevention study of people at high risk, people treated with Metformin reduced their risk of developing diabetes by 31%, and it was most effective among those between 25-40 years of age and 50-80 pounds overweight.

In 60% of the cases one or more of these methods will control Type II diabetes. If not, then the doctor would start a regimen of insulin alone or in combination with an oral medication.

Accepting treatment, especially dramatically changing lifestyle habits of eating and exercising, is very difficult for most people since you don't really feel "bad." But you will…. and then it will be too late.

What lies ahead? For those individuals who are already treating themselves with daily insulin shots, the newest advance is a computerized pump, the size of a beeper, that does the math so one doesn't have to guess how much insulin is needed. Gone away is the daily pinprick measurement and injection of the hopefully appropriate amount of insulin. The pump is attached by a small tube to a thin needle that is placed under the skin, usually on the stomach, where the insulin is released. Many are reluctant to trust this "high technology" and the price tag is high, about $5,000.

Doctors at the La Jolla Institute for Allergy and Immunology are working with a virus that completely abolished the diabetic process in pre-diabetic mice.

Canadian scientists are also transplanting pancreatic islets with good success and about 50% of the Type I patients have remained insulin-free for up to a year. Patients must take immunosuppressive drugs to prevent rejection, and the side effects often make continuing impossible. Scientists do not know how long the islets can survive and how often the procedure will be successful. Plus donors must be found. Clearly, though, this has exciting possibilities for Type I diabetic patients.

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Alameda County Area Agency on Aging
& Advisory Commission on Aging
6955 Foothill Blvd., Suite 300
Oakland, CA 94605

SENIOR INFORMATION by Jan Pinney

Effective January 1, 2004, blind, disabled, or persons over age 65 (and some minors as well), will be eligible to receive increased benefits under the Supplemental Security Income (SSI/SSP) program. Single persons can receive up to $790/month and a blind individual can receive up to $854/month. A qualified couple may now receive $1,399/month and if the couple are both blind, they may receive $1,619/month.

For those eligible and living in housing without cooking facilities, and those residing in Residential Care Facilities, benefits can be higher.

To be eligible for SSI/SSP, one cannot have more than $2,000 in liquid assets if single, and no more than $3,000 is allowed for an eligible couple under this federal program. Up to $1,500 can be set aside for burial (for each). A house (provided one is living in it) is not counted, nor is an auto (if used for medical transportation). In certain instances, one can work and still receive SSI/SSP benefits. Along with a cash allowance, those receiving SSI/SSP can receive free medical coverage under MediCal.

Immigrants who are not eligible for Federal SSI, may apply for the state Cash Assistance Program for Immigrants (CAPI). Benefits for individuals are generally $10 less than the allocation under the federal SSI/SSP program. Similarly, benefits for couples are generally $20 less than the SSI/SSP program.

Since these benefit programs are complex, please contact Social Security for SSI/SSP information at 1-800-772-1213. For CAPI information in English, call 1-800-648-0954; 1-510-268-2332 for other languages.

Tri-City Elders Coalition presents a workshop on **Aging, Spirituality and Creativity**, Tuesday, Feb. 24, 10:00 a.m. – 12:00 noon at the Fremont Main Library, Fukaya Room, 2450 Stevenson Blvd., Fremont. Call 510-574-2064 for more information or www.seniors@aclibrary.org.

Where can I get more information on diabetes?

Food and Drug Administration, San Francisco District, 1431 Harbor Bay Parkway, Alameda, 94502. www.fda.gov/womens/taketimetocare/diabetes/. Brochures, risk assessment questions, and a recipe booklet are available by phone (510-337-6736) or can be downloaded and reproduced.

National Association of Chain Drug Stores at www.nacds.org.

National Diabetes Education Program (NDEP), 1 Diabetes Way, Bethesda, MD 20892-3600. Phone 1-800-438-5383 or http://ndep.nih.gov.

CA Department of Health Services, Diabetes Prevention and Control Program, 1616 Capitol Avenue, Suite 74.317, MS 7211, P.O. Box 942732, Sacramento CA 94234. 1-916-552-9888 or www.caldiabetes.org. Items in 12 languages.

American Diabetes Association, National Service Center, 1701 North Beauregard Street, Alexandria, VA 22311. Phone 1-800-342-2383 or www.diabetes.org.