



Healthy Aging Update

Iowa Department of Elder Affairs

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Welcome

This issue of Healthy Aging Update highlights diabetes. Sources for this information on diabetes are the Iowa 2006 BRFSS and University of Florida ENAFS Healthy Living Program Module on Diabetes. Check out the Resource section for information on obtaining the complete educational module. Additional information in this newsletter is intended to serve as a resource for providing nutrition and health promotion services to older adults.

DIABETES

Diabetes in the United States is reaching almost epidemic proportions. In Iowa, the rate of diabetes has increased 60% from 1997 to 2006. Nationally, almost 16 million people live with the disease and another 5.2 million have the disease but do not know it. These individuals are at increased risk for developing high blood pressure, stroke, blindness, kidney disease, cardiovascular disease, periodontal disease, and amputations. However, the good news is that with diagnosis and treatment, complications can be minimized. Treatment includes learning self management for controlling blood glucose, lifestyle changes, quitting smoking, taking medications, weight control.

The risk of diabetes increases with age. Adults over the age of 65 make up almost 40% of all cases of diabetes. In 2006, 16.7% of Iowans aged 65-74 and 18.2% over the age of 75 had diabetes. It is estimated that 11% of adults aged 60-74 have diabetes but don't know it.

DIABETES – THE DISEASE (*This information is from University of Florida, ENAFS Healthy Living Program Module on Diabetes. Lesson plans, power point presentation and handouts are available on a CD for use at congregate meal sites.*
<http://enafs.ifas.ufl.edu>)

After eating a meal, the body breaks down carbohydrates into glucose. The glucose is then absorbed into the bloodstream and increases blood glucose levels. The main role of glucose is to provide energy for the body. In fact, the body's cells require glucose to carry out chemical reactions and keep the body functioning properly. But first, glucose must leave the blood and get into the cells. The rise in blood glucose after digestion

signals the pancreas to release the hormone insulin. Insulin acts as the “key” that unlocks the cells, allowing glucose to enter and provide energy.

Diabetes is a disease caused by inadequate insulin production and/or utilization (insulin resistance). The main characteristic of diabetes is high blood glucose, or hyperglycemia, although protein and fat metabolism also are compromised. There are two main types of diabetes: type 1 and type 2. Both types result in high blood glucose levels. Type 1 diabetes accounts for 5-10% of all diabetes cases and was formerly known as insulin- dependent or juvenile-onset diabetes. People affected by type 1 diabetes produce little or no insulin and must be given exogenous insulin. The primary methods of insulin administration are by injection or an insulin pump. Currently, insulin patch and inhaled insulin are being explored. Type 2 diabetes was previously called noninsulin-dependent or adult-onset diabetes, as it was previously diagnosed only in adults aged 40 and older. However, over the past 20 years, more and more children and adolescents have been diagnosed with type 2 diabetes. The concurrent decrease in physical activity and increase in childhood obesity are likely contributors to this change. People with type 2 diabetes can be treated with exercise, dietary modifications, oral drugs, and/or insulin.

The good news is that development of type 2 diabetes can be prevented or delayed in high risk persons. The Diabetes Prevention Program determined that intensive lifestyle changes or use of metformin (Glucophage®), an oral agent that decreases liver glucose output and insulin resistance, significantly reduce the incidence of diabetes in persons with insulin resistance but not yet diagnosed with diabetes. Lifestyle changes, including modest weight loss (average ~4% of body weight) and increased physical activity, have been found to be more effective in lowering the incidence of diabetes than metformin use.

RISK FACTORS FOR TYPE 2 DIABETES

Diabetes is a complex disease with a number of risk factors. Many diabetes risk factors are lifestyle-related.

These include:

- overweight/obesity
- inactivity
- low high density lipoproteins (HDL)
- high triglycerides
- high blood pressure

The good news is that the development of type 2 diabetes can be prevented or delayed in high risk persons.

Certain risk factors cannot be controlled. These risk factors include:

- Being over the age of 45
- Having a family history of diabetes
- Having a family background of Alaska Native, American Indian, African American, Hispanic/Latino American, Asian American or Pacific Islander
- Women with a history of gestational diabetes or giving birth to a baby weighing more than 9 pounds

ETHNIC INFLUENCES

African Americans: African Americans are 1.8 times more likely to have type 2 diabetes than non-Hispanic whites of the same age.

Hispanic Americans: The incidence of diabetes in Hispanic Americans is approximately twice that of non-Hispanic whites.

Native Americans: American Indians and Alaska Natives are 2.2 times more likely to have diabetes than non-Hispanic whites. In some Native American communities, one in two adults has diabetes.

WARNING SIGNS OF DIABETES

A major problem with type 2 diabetes is that affected persons may not have any symptoms and may never get screened for the disease. Symptoms of type 2 diabetes often develop gradually and may not be noticed easily. Warning signs for type 2 diabetes include one or more of the following:

- frequent urination
- unusual thirst or extreme hunger
- unexplained weight loss
- extreme fatigue
- irritability
- blurred vision
- cuts/bruises that are slow to heal
- tingling/numbness in hands or feet
- recurring skin, gum, or bladder infections

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Anyone who has any of these symptoms should see their health care provider immediately to be tested for diabetes. Even if no symptoms are present, people at high risk (see previous section) should be tested on a regular schedule set up by their health care provider. A diagnosis is determined using blood tests including a fasting blood glucose (FBG) test and an oral glucose tolerance test. The categories for FBG are as follows: People with “impaired” FBG (between 100 and 125 mg/dl) have “pre-diabetes,” which is strong risk factor for the future development of diabetes. As previously discussed lifestyle changes resulting in modest weight reduction have been shown to delay or even prevent the development of diabetes in these high risk people.

Fasting Blood Glucose Levels (mg/dl)

Normal	Pre-diabetes	Diabetes
< 100	100-125	≥ 126

SUMMARY

Older persons are at a higher risk for developing diabetes than younger adults, particularly those who are overweight, inactive, have a family history, or are members of certain ethnic groups. Although diabetes is a life-threatening disease, an increase in physical activity and weight loss can prevent or delay the onset of the disease, even among those at high risk.

Screening for Diabetes is Cost Effective

A study published in the November 2007 issue of Diabetes Care reported that screening overweight and obese adults aged 45-74 for signs of pre-diabetes and treating those with the disease is cost effective. The study treated people with either impaired glucose tolerance or impaired fasting glucose or people who had both conditions.

The results showed that providing screening and the intervention had a cost-effectiveness ratio of \$8,181 per quality-adjusted life-year. The ratio indicates that it would cost the health care system \$8,181 to gain one quality-adjusted life-year among participants in the screening program. Providing the intervention to patients that exhibited either impaired glucose tolerance or impaired fasting glucose had a slightly higher cost-effectiveness ratio of \$9,511 per quality-adjusted life-year. Both cost-effectiveness ratios are attractive relative to a commonly used benchmark for cost-effectiveness studies (\$50,000 per quality-adjusted life-year).

The American Diabetes association recommends diabetes testing for all adults who are overweight or obese and have additional risk factors. Being over 65 years of age is a risk factor, all seniors are urged to ask their doctor about the free diabetes screening benefit in Medicare.

American Diabetes Association Recommendations for Medical Nutrition Therapy/Nutrition Counseling (partial list)

- Individuals with prediabetes or diabetes should receive individualized Medical Nutrition Therapy (MNT), preferably administered by a registered dietitian knowledgeable about the components of diabetes MNT.
- Nutrition counseling should be tailored to the personal needs of the individual with prediabetes or diabetes and his or her willingness and ability to make changes.
- Modest weight loss in overweight and obese insulin-resistant individuals has been shown to improve insulin resistance and is therefore recommended for all such individuals who have or are at risk for diabetes.
- In the short-term (up to 1 year), either low-carbohydrate or low-fat, energy-restricted diets may be effective for weight loss.
- Physical activity and behavior modification aid in weight loss and are most helpful in maintaining weight loss.
- Primary prevention for individuals at high risk of developing type 2 diabetes should include structured programs targeting lifestyle changes, with dietary strategies of decreasing energy and dietary fat intakes. Goals should include moderate weight loss (7% body weight), regular physical activity (150 minutes/week), dietary fiber intake of 14 g/1000 kcal, and whole grains comprising half of total grain intake.

- Intake of low-glycemic index foods that are rich in fiber and other vital nutrients should be encouraged.
- Secondary prevention, or controlling diabetes, should include a healthy dietary pattern emphasizing carbohydrate from fruits, vegetables, whole grains, legumes, and low-fat milk.
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Older American Act Nutrition Program 2006

Title III Part C Section 339: NUTRITION requires that the project J) provides for nutrition screening and nutrition education, and nutrition assessment and counseling if appropriate

Nutrition screening for nutritional problems is done with the ten nutrition questions on INAPIS. IAPI 2005-20 identified procedures for nutrition screening.

- 1) High risk is a score of 6+.
- 2) For these individuals, the next step is to develop and implement interventions to address identified problems. Interventions may include provision of educational materials and programs on topics identified as problem area or referral to a registered dietitian for nutrition counseling. Nutrition counseling can be funded under Title III B, C and D, SLP Supplemental, Elderly Services General and Elderly Waiver. Medicare also pays for Medical Nutrition Therapy for diabetes and pre-renal disease.
- 3) Reassess congregate clients in 12 months.
- 4) Reassess home delivered clients in 6 months.

Some meal participants will have an improvement in their nutrition risk score by receiving meals, receiving nutrition education targeted to the area identified as problems on INAPIS. Nutrition assessment and nutrition counseling by a registered dietitian would be appropriate for meal participants with significant nutrition problems on initial nutrition screening or those who do not improve nutrition risk score on subsequent screenings.

Area Plan Section 306 a(4)(B) Area agencies on aging will use outreach efforts that will (1) identify individuals for assistance under this Act with special emphasis on (VII) older individuals at risk for institutional placement.

Unintended weight loss in older adults is a predictor of declining health, loss of strength and independence. Weight loss often begins a downward spiral that leads to institutionalization. Nutrition counseling would be appropriate for older individuals who are experiencing unintended weight loss or other problems identified on screening.

IAC 7.12(4) The AAA shall ensure the nutrition funds are used to: (c) provide nutrition screening and counseling as appropriate and nutrition education services to address assessed needs.

Iowa NAPIS 2007 Highlights

Service	Total Clients	Change from 2006
Congregate meals	54,534	-30%
Home delivered meals	14,562	-8%
Nutrition counseling	2	-33%
Nutrition education	2,435	-5%

Seniors Who Can Pay for Meals Should Do So- Taxpayers Should pay tab only for needy

This is the title of a letter to the editor submitted to the Des Moines Register by Aging Resources of Central Iowa in response to an editorial promoting means testing of the OAA nutrition program. This is a portion of the response.

The article states that is exactly what federal Older Americans Act and Polk County funds are doing in Polk County! This program serves low income elders. 30% of the older adults participating in the nutrition program have incomes below federal poverty levels and can not afford to pay the full meal cost. For most of these program participants it may be the only meal they eat that day.

The elder participants that are being served at the meal sites do not have the income to make ends meet. The FY07 federal poverty level is **\$850.83** a month for a single individual. Listed are the actual monthly expenses of an 83 year old widow in Polk County living at the poverty level:

\$	96.40	Medicare
	110.00	Supplemental Insurance
	27.93	Average national prescription drug expenses
	68.00	Co-payments on prescription drugs
	120.00	Property Taxes on an 83+ year old 3 bedroom house
	217.00	Lights and Gas
	35.00	Water, Sewer, Garbage Collection
	20.00	Basic Telephone Service
	50.00	Homeowners Insurance
	50.00	Car Insurance
\$	794.33	<u>TOTAL MONTHLY EXPENSES</u>
	56.50	Left for Food, Clothing, Medical and Drug Co-pays, Gas for Car, and Miscellaneous
\$	<u>850.83</u>	

What is left (\$56.50) is not enough to meet basic monthly food needs.

National Nutrition Month- March 2008

New information about food and diet appears every day. During National Nutrition Month®, the American Dietetic Association urges consumers to look beyond the myths of nutrition, focus on the facts and remember the theme for the month, *Nutrition: It's a Matter of Fact*.

Sifting through complex food and nutrition research can be complicated. A registered dietitian can translate the science and tailor it into advice that fits an individual consumer's needs. Through National Nutrition Month, created in 1973, the American Dietetic Association promotes healthful eating by providing practical nutrition guidance and focusing attention on making informed food choices and developing sound physical activity habits. Nutrition month messages and resources can be accessed at www.eatright.org.

Chef Charles Club

In 2007, the Chef Charles nutrition education was offered to approximately 2,900 older adults at congregate meal sites as a supplement to the OAA nutrition education. The majority of these sites participated as a part of the USDA Food Stamp Nutrition Education BASICS grant that provides federal dollars as a match for state dollars allocated to nutrition education.

Key findings of the program evaluation:

1. Older adults reported a greater frequency of consuming fruits, fruit juice, vegetables and yogurt when compared pre to post evaluation.
2. Older adults reported spending more time engaged in moderate and mild physical activity pre to post.
3. Half of the paired respondents tasted fruits and vegetables that were new to them.
4. Approximately half of the respondents fully participated in the Chef Charles (newsletter plus separate group activities/sampling recipes/discussion)

The year-end report to USDA identified recommendations for the Chef Charles program to engage older adults more effectively in nutrition education activities. 1) continue with monthly newsletter and 2) improve quality of nutrition education offered at meal sites through educator training and enhancement of instructor guides and educational materials. Also barriers that prevent the full program (newsletter plus group activities/sampling recipes/discussion) from being implemented at meal sites need to be identified.

Each year in February, the Iowa Department of Public Health(IDPH) releases an RFP for the BASICS grant. Current BASICS contractors are listed on the IDPH web sites. http://www.idph.state.ia.us/nutritionnetwork/community_basics.asp. AAAs interested in participating in the Chef Charles program are encouraged to contact community partners who are already a BASICS grantee and discuss opportunities for collaboration. Also contact Carlene Russell at carlene.russell@iowa.gov for additional information.

Reminder

Submit your best menu to showcase congregate meals at the Governor's Conference on Aging. Send to Carlene Russell by March 1, 2008.

RESOURCES

Nutrition Program Management



- **Food prices on the rise.** Consumers are starting to feel the pinch of higher food prices with prices increasing by the greatest percent in 17 years.

Food prices rose by 5.3 percent through November compared with a 4.2 percent increase for all of 2006. Price increases may not be equally spread across food groups. Research published in the December issue of the Journal of the American Dietetic Association found that low calorie foods (primarily fruits and vegetables) cost 20 percent more in 2006 compared to 2004. Conversely, calorie dense foods including potato chips, cookies and candy bars cost 2 percent less over the same two year time span. Food analysts predict that the prices of most food products are likely to continue to rise throughout 2008.

Health Promotion



- **Free Diabetes Information** on living with diabetes, tips on preventing or delaying type 2 diabetes and how to help loved ones manage the disease. Call 1-888-693-NDEP or visit www.YourDiabetesInfo.org
- **Health promotion education modules** for older adults on diabetes, hypertension and fall prevention have been developed by the University of Florida Extension. For more information contact IFAS Extension book store 800-226-1764 or visit www.ifasbooks.ufl.edu (click on education).
- **Choosing Pain Medication for Osteoarthritis.** English and Spanish-language guide to help patients understand the latest scientific evidence on osteoarthritis pain relievers has been issued by the federal Agency for Healthcare Research and Quality. Osteoarthritis, a joint disease that leads to cartilage erosion and friction between bones, affects mostly older people. To get the consumer guide, go to <http://effectivehealthcare.ahrq.gov/reports/topic.cfm?topic=4&sid=31&rType=1&lang=1> Printed copies will be available from the AHRQ Publications Clearinghouse, 800-358-9295, or by sending an e-mail to ahrqpubs@ahrq.gov.
- **Accessing Health Information.** The National Institute on Aging has just released the Toolkit for Trainers, a free, downloadable training curriculum that instructors can use to help older adults find reliable health information online.

Available on the NIHSeniorHealth.gov website, the toolkit comes with lesson plans, student handouts, web-searching exercises, and glossaries which instructors can customize to fit students' skill levels and interests. An introductory video acquaints trainers with the curriculum, and trainer tools help instructors gear their teaching toward the older learner. Check out the toolkit on the NIHSeniorHealth website at www.nihseniorhealth.gov/toolkit.

- **Vitamins** are essential nutrients that contribute to a healthy life. Although most people get all the vitamins they need from the foods they eat, millions of people worldwide take supplemental vitamins as part of their health regimen. Vitamin products are regulated by FDA as "Dietary Supplements." The law defines dietary supplements, in part, as products taken by mouth that contain a "dietary ingredient" intended to supplement the diet. For more information about how vitamins are regulated, why buy vitamins, vitamin facts, and risks of overdoing vitamins, go to:
<http://www.fda.gov/consumer/updates/vitamins111907.html>
- **FDA fruit and vegetable posters.** The Food and Drug Administration's Center for Food Safety and Applied Nutrition has placed on its website downloadable/printable posters for nutrition information of the 20 most frequently consumed raw fruits, vegetables, and fish in the United States. The website is <http://www.cfsan.fda.gov/~dms/nutinfo.html> and (<http://www.cfsan.fda.gov/~lrd/fr060817.html>).
- **Exercise and nutrition study reveals big savings.** Simple lifestyle changes add up to big savings and, according to a recent study by Blue Cross Blue Shield of North Carolina (BCBSNC), people who engage in regular exercise and nutritious eating can drastically reduce their health care costs.

During a two-year study (2005-2006), BCBSNC enrolled 1,171 participants in its "Healthy Lifestyle Choices" program. During the program participants were offered online tools and resources to help them exercise, lose weight, manage their stress levels and follow a nutritious eating plan. Participants received a step counter, lifestyle diary and a stress management CD. At the end of 2006 BCBSNC compared their average medical costs before and after enrolling in the program.

The study found that the participants were able to save an average of \$187 annually in health care costs through the program. Savings over the two-year period totaled \$437,729 for the participants studied.

According to a 2007 report by the Trust for America's Health, North Carolina has the 17th highest rate of adult obesity and the fifth highest rate of overweight youths (ages 10-17) in the nation. In 2004, BCBSNC found that members who are overweight cost the company 18 percent more than normal weight members in medical claims and expenses, and obese members cost 32 percent more. BCBSNC says it is developing preventive health programs aimed to curb that trend.

Recent participants to the "Healthy Lifestyle Choices" program are now eligible to receive six free visits with a registered dietitian and access to one-on-one health coaching with a registered nurse.

- **Current Issues in Nutrition Conference** will be hosted by Iowa State University and broadcast to multiple sites across the nation on April 17, 2008, 9:15 to 3:30. This year the topic is nutrition education.

Physical Activity

- **Iowa Wellness Commission Report.** The Culver administration has a focus on increasing the proportion of Iowa seniors living healthy, active lifestyles. Information on the Iowa Wellness Commission can be accessed at http://www.governor.iowa.gov/news/2007/10/25_2.php . Recommendations of the Commission include addressing physical activity for seniors.



Remove Unhealthy Food From Schools
Improve the Health of Iowa's Children
Encourage More Iowans to Quit Smoking
Encourage Physical Activity for Seniors
Promote Wellness Efforts Among Iowans

Meals

- **Galley Food Service has 2,5 and 7 day frozen meal packs.**
www.galleyfoodservice.com

Food Safety

- **Microwave oven safety.** FDA regulates the manufacture of microwave ovens and, under a strict safety standard, sets and enforces rules of performance to assure that radiation emissions do not pose a hazard to public health. More information to help ensure safe use of your microwave can be viewed at: <http://www.fda.gov/consumer/updates/microwave112107.html>

Miscellaneous Resources

- DisabilityInfo.gov (www.disabilityinfo.gov) is a one-stop federal Web site designed to offer people with disabilities access to the information and resources they need to fully participate in the workforce and in their communities. Managed by the U.S. Department of Labor's Office of Disability Employment Policy (ODEP) (www.dol.gov/odep), DisabilityInfo.gov offers a broad range of valuable information, not only for people with disabilities, but also for older Americans, service providers, caregivers and many others.



Several sections of the Web site offer information and resources geared toward older Americans. For example, the Health section features an Aging category

with information on Medicare and Medicaid benefits, long-term care providers, support for caregivers and assistive technologies for the aging population. The Transportation section of the Web site includes guides to help senior citizens locate accessible transportation in their communities; and the Housing section contains information on HUD-subsidized properties that serve the elderly and persons with disabilities.

- **Iowa Affordable Assisted Living website.** This site is also linked to LifeLongLinks in the consumer links section.
<http://www.iowafinanceauthority1.com/IowaAffordableAssistedLivingIndex.asp>

Did You Know?

- The Administration on Aging (AoA) Gateway has information about the new provisions of the Older Americans Act (OAA) at <http://www.aoa.gov/oa2006/>.

On the Go – With Bananas!

Pick a Better Snack



February is National Snack Month! Challenge yourself to make each snack a healthy snack by choosing fruits and vegetables instead of treats filled with empty calories and preservatives. For starters, why not have a banana? Bananas are available all year long and make an easy snack when you're on the go. It's no wonder bananas are the most popular fruit in the United States.

Bananas have been around for more than one million years! In fact, it's thought bananas were probably the first fruit to be farmed and harvested. A common misperception about bananas is that the tropical fruit grows on trees – not true. Bananas actually grow on large plants that can't be classified as trees since the stems don't have any wood tissue. Banana plants are the world's largest herb and are part of the lily and orchid family.

When choosing bananas, look for uniformly shaped fruit and color. Avoid fruit with damaged or wrinkly skin. Don't worry if the fruit's a little green. Bananas continue to ripen after they've been picked, so keep them at room temperature to ripen. Bananas are fully ripe when they're bright yellow with brown spots. Store them in the refrigerator to keep them longer. The refrigerator will make the peel turn brown faster, but this will not affect the inside of the banana.

Peel. Eat. (how easy is that?)

Take Bananas With You!

- Ask your favorite convenience store to offer bananas for sale as a healthy snack when you're on the go.
- Bananas make the perfect mix-in for low-fat plain or vanilla yogurt. For some added texture, throw in a spoonful of chopped nuts. You could also try putting a dab of peanut butter on your bananas.
- Cereal with fruit makes a great snack anytime of day – add slices of banana to your favorite hot or cold cereal.

Quick Nibble:

Bananas are actually a type of berry. Each individual banana is considered a finger, and a bunch of bananas is called a hand.

Pick a **better** snack™ was developed in partnership with the Iowa Nutrition Network and the USDA's Food Stamp Program and Team Nutrition – equal opportunity providers and employers. For more information about the Iowa Nutrition Network or the Chef Charles nutrition education program, call the Iowa Department of Public Health at (800) 532-1579. Note that short articles like the “On the Go with Bananas” and graphics are on the IDPH web site and are available for use in newsletters or newspapers (http://www.idph.state.ia.us/pickabettersnack/social_marketing.asp).

Our Mission:

To provide advocacy, educational, and prevention services to older Iowans so they can find Iowa a healthy, safe, productive, and enjoyable place to live and work.

Iowa Department of Elder Affairs

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