



Healthy Aging Update

Iowa Department of Elder Affairs

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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.

Welcome

This issue of Healthy Aging Update continues to provide information on the Dietary Guidelines with a focus on calcium. Information is related to the nutrition requirements of the Older Americans Act as well as for the nutrition that is needed in meals older adults prepare for themselves. The goal of this newsletter is to provide information and resources on nutrition, health promotion and disease prevention for older adults. The source of the following information on calcium was obtained from <http://www.health.gov/dietaryguidelines/>

Dietary Guidelines for Americans: Focus on Calcium

Increased intakes of fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products are likely to have important health benefits for most Americans. Diets rich in milk and milk products can reduce the risk of low bone mass throughout the life cycle. The consumption of milk products is especially important for children and adolescents who are building their peak bone mass and developing lifelong habits. Although each food group may have a different relationship with in reducing risk of chronic disease, the adequate consumption of all food groups contributes to overall health.

KEY RECOMMENDATIONS for older adults

Consume 3 cups per day of fat-free or low-fat milk or equivalent milk products.

Key Recommendations for Specific Population Groups

Children and adolescents.. Children 2 to 8 years should consume 2 cups per day of fat-free or low-fat milk or equivalent milk products. Children 9 years of age and older should consume 3 cups per day of fat-free or low-fat milk or equivalent milk products.

DISCUSSION

Fruits, vegetables, whole grains, and milk products are all important to a healthful diet and can be good sources of the nutrients of concern. When increasing intake of fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products, it is important to decrease one's intake of less-nutrient-dense foods to control calorie intake. The 2,000-calorie level used in the discussion is a reference level only; it is not a recommended calorie intake because many Americans should be consuming fewer calories to maintain a healthy weight.

Milk and Milk Products

Another source of nutrients is milk and milk products. Milk product consumption has been associated with overall diet quality and adequacy of intake of many nutrients. The intake of milk products is especially important to bone health during childhood and adolescence. Studies specifically on milk and other milk products, such as yogurt and cheese, showed a positive relationship between the intake of milk and milk products and bone mineral content or bone mineral density in one or more skeletal sites (see side bar for information on equivalent amounts of milk products).

Milk group recommendations for older adults		1 cup equivalent is:
For calcium	3 cups	
For vitamin D	4 cups	

- 1 cup low-fat/fat-free milk, yogurt
- 1½ oz of low-fat, fat-free, or reduced fat natural cheese
- 2 oz of low-fat or fat-free processed cheese 1/3 cup powdered milk
- 1/3 cup powdered milk

Adults and children should not avoid milk and milk products because of concerns that these foods lead to weight gain. There are many fat-free and low-fat choices without added sugars that are available and consistent with an overall healthy dietary plan. If a person wants to consider milk alternatives because of lactose intolerance, the most reliable and easiest ways to derive the health benefits associated with milk and milk product consumption is to choose alternatives within the milk food group, such as yogurt or lactose-free milk, or to consume the enzyme lactase prior to the consumption of milk products. For individuals who choose to or must avoid all milk products (e.g., individuals with lactose intolerance, vegans), non-dairy calcium-containing alternatives may be selected to help meet calcium needs.

Substitutions for Milk and Milk Products

Since milk and milk products provide more than 70 percent of the calcium consumed by Americans, guidance on other choices of dietary calcium is needed for those who do not consume the recommended amount of milk products. Milk product consumption has been associated with overall diet quality and adequacy of intake of many nutrients, including calcium, potassium, magnesium, zinc, iron, riboflavin, vitamin A, folate, and vitamin D. People may avoid milk products because of allergies, cultural practices, taste, or other reasons. Those who avoid all milk products need to choose rich sources of the nutrients provided by milk, including potassium, vitamin A, and magnesium in addition to calcium and vitamin D. Some non-dairy sources of calcium are shown in the table below. The bioavailability of the calcium in these foods varies.

Those who avoid milk because of its lactose content may obtain all the nutrients provided by the milk group by using lactose-reduced or low-lactose milk products, taking small servings of milk several times a day, taking the enzyme lactase before consuming milk products, or eating other calcium-rich foods.



Is Eggnog a Good Source of Calcium?

One 8-ounce cup of eggnog has about 330 milligrams of calcium. Not bad! But there is one glitch. The cup of eggnog also contains about 345 calories according to the USDA nutrient database. Eggnog just barely has 30 milligrams of absorbable calcium per 100 calories. If you can find lower calorie eggnog with a comparable amount of calcium, it could be a reasonable way to meet some of your calcium needs during the holidays!

Non-Dairy Food Sources of Calcium

Non-Dairy Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount. The bioavailability may vary. (The Adequate Intake for older adults is 1,200 mg/day.)

Food (Standard Amount)	Calcium (mg)	Calories
Fortified ready-to-eat cereals (various), 1 oz	236-1043	88-106
Soy beverage, calcium fortified, 1 cup	368	98
Sardines, Atlantic, in oil, drained, 3 oz	325	177
Tofu, firm, prepared with nigari, ½ cup	253	88
Pink salmon, canned, with bone, 3 oz	181	118
Collards, cooked from frozen, ½ cup	178	31
Molasses, blackstrap, 1 Tbsp	172	47
Spinach, cooked from frozen, ½ cup	146	30
Soybeans, green, cooked, ½ cup	130	127
Turnip greens, cooked from frozen, ½ cup	124	24
Ocean perch, Atlantic, cooked, 3 oz	116	103
Oatmeal, plain and flavored, instant, fortified, 1 packet prepared	99-110	97-157
Cowpeas, cooked, ½ cup	106	80
White beans, canned, ½ cup	96	153
Kale, cooked from frozen, ½ cup	90	20
Okra, cooked from frozen, ½ cup	88	26
Soybeans, mature, cooked, ½ cup	88	149
Blue crab, canned, 3 oz	86	84
Beet greens, cooked from fresh, ½ cup	82	19
Pak-choi, Chinese cabbage, cooked from fresh, ½ cup	79	10
Clams, canned, 3 oz	78	126
Dandelion greens, cooked from fresh, ½ cup	74	17
Rainbow trout, farmed, cooked, 3 oz	73	144

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

Food Sources of Calcium

Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount. (All are greater than or equal to 20% of Adequate Intake for adults 19-50, which is 1,000 mg/day.)

Food, Standard Amount	Calcium (mg)	Calories
Plain yogurt, non-fat (13 g protein/8 oz), 8-oz container	452	127
Romano cheese, 1.5 oz	452	165
Pasteurized process Swiss cheese, 2 oz	438	190
Plain yogurt, low-fat (12 g protein/8 oz), 8-oz container	415	143
Fruit yogurt, low-fat (10 g protein/8 oz), 8-oz container	345	232
Swiss cheese, 1.5 oz	336	162
Ricotta cheese, part skim, ½ cup	335	170
Pasteurized process American cheese food, 2 oz	323	188
Provolone cheese, 1.5 oz	321	150
Mozzarella cheese, part-skim, 1.5 oz	311	129
Cheddar cheese, 1.5 oz	307	171
Fat-free (skim) milk, 1 cup	306	83
Muenster cheese, 1.5 oz	305	156
1% low-fat milk, 1 cup	290	102
Low-fat chocolate milk (1%), 1 cup	288	158
2% reduced fat milk, 1 cup	285	122
Reduced fat chocolate milk (2%), 1 cup	285	180
Buttermilk, low-fat, 1 cup	284	98
Chocolate milk, 1 cup	280	208
Whole milk, 1 cup	276	146
Yogurt, plain, whole milk (8 g protein/8 oz), 8-oz container	275	138
Ricotta cheese, whole milk, ½ cup	255	214
Blue cheese, 1.5 oz	225	150
Mozzarella cheese, whole milk, 1.5 oz	215	128
Feta cheese, 1.5 oz	210	113

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 17. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

Visit Mypyramid.gov to identify your calorie needs and assess your dietary intake. At this web site, use MyPyramid Tracker to assess your diet quality and physical activity status. The Food Calories/Energy Balance feature automatically calculates your energy balance by subtracting the energy you expend from physical activity from your food calories/energy intake.



Tip for Increasing Calcium & vitamin D

Add powdered milk to the following for additional calcium:

- Milk (double strength milk)
- Casseroles
- Hot cereal
- Pudding, custard
- Egg dishes
- Gravy, sauces
- Mashed potatoes

Special Groups and Vitamin D

Adequate vitamin D status, which depends on dietary intake and the skin's ability to make vitamin D, is important for optimal calcium absorption, and it can reduce the risk for bone loss. Two functionally relevant measures indicate that optimal serum 25-hydroxyvitamin D may be as high as 80 nmol/L. The elderly and individuals with dark skin (because the ability to synthesize vitamin D from exposure to sunlight varies with degree of skin pigmentation) are at a greater risk of low serum 25-hydroxyvitamin D concentrations. Also at risk are those exposed to insufficient ultraviolet radiation (i.e., sunlight) for the skin production of vitamin D (e.g., housebound individuals).

For individuals within the high-risk groups, substantially higher daily intakes of vitamin D (i.e., 25 µg or 1,000 International Units (IU) of vitamin D per day) have been recommended to reach and maintain serum 25-hydroxyvitamin D values at 80 nmol/L. Three cups of vitamin D- fortified milk (7.5 µg or 300 IU), 1 cup of vitamin D-fortified orange juice (2.5 µg or 100 IU), and 15 µg (600 IU) of supplemental vitamin D would provide 25 µg (1,000 IU) of vitamin D daily.

MyPyramid Tips for Calcium Intake

- Include milk as a beverage at meals. Choose fat-free or low-fat milk.
- If you usually drink whole milk, switch gradually to fat-free milk, to lower saturated fat and calories. Try reduced fat (2%), then low-fat (1%), and finally fat-free (skim).
- If you drink cappuccinos or lattes—ask for them with fat-free (skim) milk.
- Add fat-free or low-fat milk instead of water to oatmeal and hot cereals
- Use fat-free or low-fat milk when making condensed cream soups (such as cream of tomato).
- Have fat-free or low-fat yogurt as a snack.
- Make a dip for fruits or vegetables from yogurt.
- Make fruit-yogurt smoothies in the blender.
- For dessert, make chocolate or butterscotch pudding with fat-free or low-fat milk.
- Top cut-up fruit with flavored yogurt for a quick dessert.
- Top casseroles, soups, stews, or vegetables with shredded low-fat cheese.
- Top a baked potato with fat-free or low-fat yogurt.

Keep it safe to eat

- Avoid raw (unpasteurized) milk or any products made from unpasteurized milk.
- Chill (refrigerate) perishable food promptly and defrost foods properly. Refrigerate or freeze perishables, prepared food and leftovers as soon as possible. If food has been left at temperatures between 40° and 140° F for more than two hours, discard it, even though it may look and smell good.
- Separate raw, cooked and ready-to-eat foods.

For those who choose not to consume milk products

- If you avoid milk because of lactose intolerance, the most reliable way to get the health benefits of milk is to choose lactose-reduced or low-lactose alternatives within the milk group, such as cheese, yogurt, or lactase-treated milk, or to consume the enzyme lactase before consuming milk products.
- Calcium choices for those who do not consume milk products include
- Calcium fortified juices, cereals, breads, soy beverages, or rice beverages
- Canned fish (sardines, salmon with bones) soybeans and other soy products (soy-based beverages, soy yogurt, tempeh), some other dried beans, and some leafy greens (collard and turnip greens, kale, bok choy). The amount of calcium that can be absorbed from these foods varies.

What to Take for Arthritis Pain?

Physical Activity:
The Arthritis Pain
Reliever.

A message from the
Centers for Disease
Control and Prevention.

Bone Health and Physical Activity

- Participation in regular physical activity is probably the best thing you can do for your bones - especially when it is combined with good bone nutrition. Physical activity during childhood and adolescence can potentially build bone mass that will persist into the adult years. The right types of exercise also help to preserve bone strength into old age. As long as you can safely move, it is not too late to benefit from the right types of physical activity. The American College of Sports Medicine recommends moderate-to-high intensity weight-bearing activities to assist adults in maintaining bone mass and strength.

Downloadable tips on healthy active aging:

<http://www.agingblueprint.org/tips.cfm>

<http://www.niapublications.org/agepages/exercise.asp>

<http://www.healthyagingprograms.com/content.asp?sectionid=73>

Arthritis

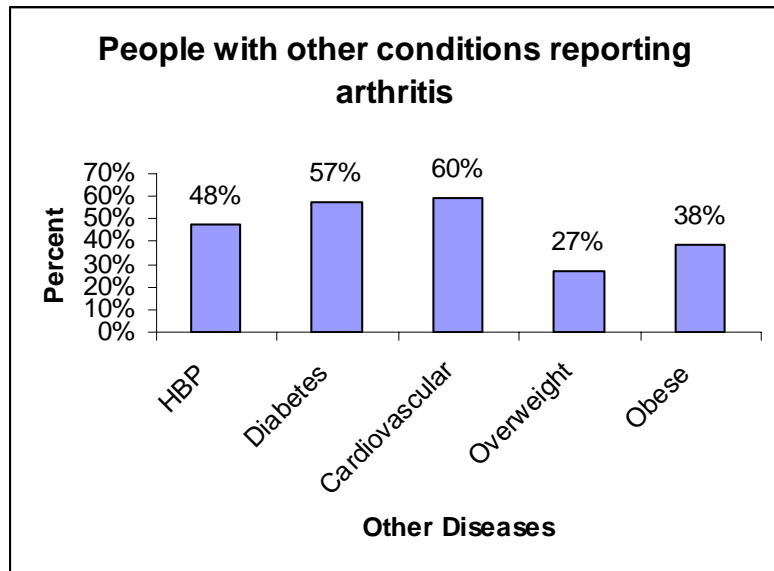
Arthritis is a leading cause of disability in the United States (US) and in Iowa as well. As the population ages, there is an increased burden of arthritis on individuals, families and the community as a whole characterized by an increase in the limitation of activities, reduced quality of life and dramatic economic cost. The prevalence of arthritis in the US has dramatically increased in the last ten years due in part to the aging of the population, but also because of the lower levels of physical activity and poor nutrition which can often lead to obesity and other chronic conditions.

It is estimated that in 2005, 27.4% of Iowa adults who have been diagnosed with arthritis by a physician with most of these being over 65 years of age and female. This represents approximately 611,000 adults, which is an increase of 26,000 from 2003. Iowa has a higher rate of arthritis (27.4%) compared to the national rate of 21.4%, but the same prevalence rate with regards to the elderly population, which is around 50%.

Adults with Arthritis by Age, Gender, Education, Income level, and Health Care Coverage (BRFSS Data, 2005)

Characteristics	Weighted Percent
Age Group	
<45 Years	20.21
45 to 64 years	41
Over 65 Years	39.79
Sex	
Male	41.08
Female	58.92
Education Level	
High School	52
College	47
Income Level	
<\$35,000	44
35 to <\$50,000	14.93
Over \$50,000	28.19
Health Care Coverage	
Yes	92.26

People with other chronic diseases have arthritis conditions as well; the table below shows other diseases and the percentage of individuals also having arthritis.



In 2004, the inpatient medical costs of arthritis in Iowa were over \$300,000,000. It is important to note that this amount is just for conditions where arthritis was the principal diagnosis, meaning that people were hospitalized only because of arthritis-related conditions. The elderly was responsible for the biggest portion of the healthcare cost, which translated to a higher Medicare expenditure. So, addressing arthritis within the elderly population will likely reduce a significant portion of the hospital costs. For information about the Iowa Arthritis Program visit: <http://www.idph.state.ia.us/bhpl/arthritis.asp>

Resources

Food Safety

- Food Safety During Power Outages. USDA's Food Safety and Inspection Service (FSIS) has released and posted on its Web site a Public Service Announcement (PSA) to help consumers keep food safe during bad weather. "Food Safety During Power Outages," is part of ongoing outreach efforts to raise awareness about the importance of food safety during times of power outages due to storms and other events. "Power outages can occur at any time of the year and it often takes from a few hours to several days for electricity to be restored to residential areas," said USDA Under Secretary for Food Safety Dr. Richard Raymond. "Foods stored in freezers and refrigerators can become unsafe in just a few hours if bacteria begin to grow and if these foods are consumed, people can become very sick."
- The PSA, available in 30- and 60-second versions, illustrates practical food safety recommendations for handling and consuming foods stored in refrigerators and freezers during, and after, a power outage. Consumers are encouraged to view the PSA at FSIS' Web site http://www.fsis.usda.gov/news/Food_Safety_Videos/
- Consumer advice on seasonal preparations, including holiday buffets, safe food gifts, turkey preparation, and more can be found on FDA's Web site at: <http://www.cfsan.fda.gov/~dms/foodrink.html>

- FDA Tips to Prevent Foodborne Illness This Holiday Season because the holidays present special food safety challenges, precautions are necessary in handling, cooking, and refrigerating foods. To help ensure that holiday foods are not only delicious but also safe, FDA suggests taking steps to reduce the risk of foodborne illnesses. To view these suggestions and tips, go to: <http://www.cfsan.fda.gov/~dms/fsholida.html>

General Aging

- PBS Frontline video series addresses a powerful and intimate journey into the uncharted territory of Americans living longer than ever -- and what it means for them, their loved ones and our society. The videos can be accessed at: <http://www.pbs.org/wgbh/pages/frontline/livingold/>
- Stereotypes contribute to older men seeking, receiving depression care less frequently," (Eurekalert [American Association for the Advancement of Science], September 27, 2006).
http://www.eurekalert.org/pub_releases/2006-09/uocd-sct092606.php
- US Administration on Aging Report "A Profile of Older Americans: 2005," (Sept. 2006, .pdf, HTML and Word format (report), Excel format (tables), 16p.). <http://www.aoa.gov/PROF/Statistics/profile/2005/profiles2005.aspx>
- "Sick elderly can have temporary cognitive problems" (Reuters Health, Nov. 14, 2006).
<http://www.reutershealth.com/archive/2006/11/14/eline/links/20061114elin034.html>
- Report on Community Readiness for Older Adults: The National Association of Area Agencies on Aging, in partnership with the International City/County Management Association, National Association of Counties, National League of Cities and Partners for Livable Communities released the results of a survey they conducted of 10,000 local governments to: determine their aging readiness to provide programs, policies and services that address the needs of older adults and their caregivers; to ensure that their communities are livable for persons of all ages; and to harness the talent, wisdom and experience of older adults to contribute to community at large. The survey found that only 46% of American communities have begun to address the needs of a rapidly increasing population. The survey results show that although many communities have some programs to address the needs of older adults, few have undertaken a comprehensive assessment to make their communities elder friendly or livable communities for all ages. To read the full report please see <http://www.n4a.org/pdf/MOAFinalReport.pdf>

Caregiving

- International Longevity Center- USA Report: "Caregiving in America," (September 2006, .pdf format, 81p.).
<http://www.ilcusa.org/lib/pdf/Caregiving%20in%20Amrica-%20Final.pdf>
- Caregiving-A free newsletter for family caregivers is available at <http://www.caringtimes.org>
- Caregiving-"Rough time' ahead for boomers as they age," by Kathleen Fackelmann (_USA Today_ [McLean, VA], September 27, 2006).
http://www.usatoday.com/news/health/2006-09-26-elder-care_x.htm

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*If you are interested in
receiving or discontinuing
the healthy aging
updates, contact Erin
Haafke by email at
erin.haafke@iowa.gov.*

- Choices for Independence- "Vermont program offers new twist on elder care," (Associated Press via [_MSNBC.com_](#), November 1, 2006). <http://www.msnbc.msn.com/id/15515013/>
- HospiceDirectory.org is a searchable online consumer database that lists hospices in North America and the U.S. territories. It is a free service that assists families and individuals in locating a hospice within their community easily and quickly. In addition, HospiceDirectory.org provides reliable and easy-to-follow information about hospice and end-of-life care to consumers. www.hospicedirectory.org
- Used Equipment Referral Service. Help people to find used items that could help them by referring them to the Iowa Compass web site: <http://www.uiowa.edu/infotech/UERS.HTM>

Nutrition

- Low serum concentrations of vitamins B(6) and B(12) and selenium predict subsequent disability in ADLs in older women living in the community. Nutritional status is one of the key factors to be considered in the development of strategies aimed at preventing or delaying the disablement process. [Arch Intern Med.](#) 2006 Nov 27; 166(21):2335-40
- Make Your Calories Count is an interactive learning program that provides consumers with information to help plan a healthful diet while managing calorie intake. The exercises will help consumers use the food label to make decisions about which food choice is right for them. <http://www.cfsan.fda.gov/~ear/hwm/labelman.html>

Falls

- Unintentional falls are a common occurrence among older adults, affecting approximately 30% of those over 65 years of age each year. The injuries received from a fall can result in death, disability, nursing-home admission, and direct medical costs. The rate of falls has increased while the rate of hospitalizations for hip fractures decreased during 1993-2003.
- Certain interventions can reduce falls (e.g., exercising regularly or having medicines reviewed to reduce side effects and interactions), but implementation at the community level remains limited, and additional measures are needed to promote widespread adoption. More information can be accessed at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5545a1.htm>
- These web sites have brochures and information such as how to prevent falls, prevention checklist and posters. <http://www.cdc.gov/ncipc/duip/fallsmaterial.htm>; <http://www.healthyagingprograms.com/content.asp?sectionid=69>

Physical Activity

- "Fitness: Highmark finds seniors really benefit from Silver Sneakers," by Jack Kelly ([_Pittsburgh Post-Gazette_](#), Oct. 4, 2006). <http://www.post-gazette.com/pg/06277/727080-114.stm>