

California Food Guide

Life Cycle: 51+ Year Olds

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What's New?

- The CDC report on the State of Aging and Health in America 2004, states that older Americans, at that time, were not reaching the previous Healthy People 2000's target goal of eating at least four servings of fruits and vegetables each day. It also reports that one-third of adults 65+ did not engage in leisure time physical activities.¹
- The 85+ age group is increasing more than any other age group in the United States.
- Moderate physical activity has proved to be beneficial for both mental and physical well being.
- Older consumers are taking more responsibility for their own health care, self treating with over the counter drugs, vitamins, herbal remedies, and food supplements. Furthermore, seniors are at risk for fraud due to profiteers pushing "anti-aging" remedies that are unfounded.

Public Health Implications

- The U.S. population that is 65 years and older is growing.¹ It is estimated that the elderly age group in California will increase 112 percent during 1990-2020.² This potentially could lead to increased healthcare costs.
- Older consumers are becoming interested in the dietary supplement market.³
- Early disease detection and treatment along with the promotion of healthy lifestyles, including programs supporting healthy eating habits and daily physical activity, are essential to healthy aging.
- Nearly 80 percent of people who need long-term care live at home or in community settings rather than institutions. Elders compromised by disabilities or dementia require care that impacts their families. Fifty-nine percent of the adult U.S. population either is or expects to be a family caregiver. Many caregivers have health concerns themselves.¹ Caregiver support is needed to control rates of stress and poor health (i.e. through respite services, support groups, and health maintenance programs).
- Dental care is often costly for seniors on fixed incomes and thus neglected. Oral health is essential to good health.
- CDC's Behavioral Risk Factor Surveillance System (BRFSS) data show that the prevalence of obesity among adults 65+ increased from 12 percent in 1990 to 19 percent in 2002.¹

Public Health Implications continued

- Obesity is associated with an increased risk of chronic diseases such as cardiovascular disease and diabetes and may worsen conditions such as arthritis.⁴
- Diabetes affects one in five Americans over 65, and the aging of the U.S. population, in conjunction with the obesity epidemic will only intensify its impact.⁴
- Heart disease is the leading cause of death among those 65+ and accounted for 32.4 percent of deaths in 2001.⁴

Definition

The definitions of “senior,” “elderly,” and “aged” vary according to the source of documents studied. Information in this chapter will be cited according to the terminology used in the reference source. The information in this chapter focuses on the community dwelling (non-institutionalized) elderly.

While we can all anticipate a slowing down of bodily functions as we age, the rate of decline varies greatly from one individual to another. Genetics plays a role in dictating the rate of decline but controllable factors such as lifestyle and early disease detection and management are highly important in maintaining optimal health.

The older U.S. population (65+) increased to almost 36 million (one in eight Americans) in 2003.⁵ California is the state with the largest number of residents in the 60+ age group (3.6 million or 14 percent of the state population). However, Florida has the highest percentage of the population (17 percent) in the 60+ age group. Nationally, in 2002, the 75-84 age group (12.7 million) was 16 times greater than in 1900. The 85+ group was 38 times larger than in 1900. The 85+ group is projected to increase from 4.7 million in 2003 to 9.6 million in 2030. There were over 50,000 persons aged 100+ living in the U.S. in 2002, a 35 percent increase from 1990. “Baby Boomers” born in 1946 to 1964 are now in their fifties. The Census Bureau projects that the older population will grow from 35 million in 2000 to 71.5 million in 2030 or 20 percent of the total U.S. population.⁵

The majority of individuals 51+ years of age live alone or with a family member(s) in the community. Women make up 69 percent of the 85+ population. Older women are twice as likely as older men to live alone. The percentage of Americans living in institutions in 2000 ranged from 4.5 percent (65+) to 18.2 percent for those 85+.⁶ According to CDC, nursing homes have an estimated 900,000 fewer residents today than they would have had if the rates of nursing home use had remained steady over the last two decades.⁶

Results of the 2000 long-form census (received by one in six housing units) showed that 50 percent of the 50-59 group living with grandchildren were responsible for the children, 31 percent of the 60-69 age group were responsible

for the children, with 34 percent of the grandparent caregivers residing with grandchildren but not the children's parents.⁷

Trends/Nutrient Patterns

The Dietary Guidelines for Americans 2005 (Dietary Guidelines) includes key recommendations for specific populations including the 51+ age group. The guidelines recommend daily calorie intakes, for 51+ years of age, based on physical activity levels as indicated in Table 1 below:

Table 1: Daily Calorie Intakes Based on Gender, Age, and Physical Activity Levels⁸

Gender	Age	Sedentary	Moderately Active	Active
Female	51+	1,600	1,800	2,000-2,800
Male	51+	2,000	2,200	2,400-2,800

(Reference: Dietary Guidelines for Americans 2005, Table 3, page 12)

Dietary Guidelines for Americans 2005 Key Recommendations⁸

In addition to following the general recommendations for eating from all five food groups, controlling fat, sodium, and calorie intake, individuals 51+ are advised to:

- Consume vitamin B₁₂ in its crystalline form (i.e., fortified foods or supplements).
- Be sure to get at least 15 minutes of ultraviolet band radiation (sunlight) each day or take extra vitamin D from vitamin D fortified foods and/or supplements to ensure an intake of 400 I.U.s daily.
- Consume less than 2,300 mg sodium (approximately one teaspoon of salt) per day. Individuals with hypertension and older adults aim to consume no more than 1,500 mg of sodium per day, and meet the potassium recommendation (4,700 mg/day) with food.
- Choose fiber-rich fruits, vegetables, and whole grains often.
- Reduce the incidence of dental caries by practicing good oral hygiene and consuming sugar and starch containing foods and beverages less frequently.
- Participate in regular physical activity to reduce functional declines associated with aging and to achieve other benefits of physical activity identified for all adults.

Consumers and professionals can access a wealth of information through the USDA's MyPyramid which was designed to complement the Dietary Guidelines.

The MyPyramid Plan provides information about the personal nutrition and physical activity needs of a consumer based on age, sex, and current physical activity levels. The MyPyramid Worksheet provides a checklist of the amount and types of food needed to meet daily requirements. An online dietary and physical activity assessment tool is available at <http://www.mypyramidtracker.gov/>. “Inside the Pyramid” at <http://www.mypyramid.gov/pyramid/> has illustrations of the food groups and daily physical activity recommendations. Detailed information about food groups may be found in the Food Groups section.

Vitamins and Minerals

Adults do not consume enough vitamins A, C, and E; calcium; magnesium; potassium; and fiber. In addition to following the recommendations for these nutrients of concern, people over age 50 should follow the recommendations for B₁₂ and Vitamin D as stated in the Key Recommendations of the Dietary Guidelines.⁸

Blood Pressure

Keeping blood pressure in the normal range reduces the risk of coronary heart disease, stroke, and congestive heart failure.⁸ Nearly all Americans consume more salt than they need. Key recommendations advise older adults or those with elevated blood pressure to consume no more than 1,500 mg of sodium per day and to meet the Adequate Intake (AI) recommendation for 4,700 mg/day of potassium, a difficult goal to achieve. Approximately 75 percent of sodium found in processed foods in the U.S. is from substances added by the manufacturers. The range of sodium content of processed foods available in the retail market may vary widely so labels must be compared. Foods listed as containing more than 140 mg or more than 5 percent of the Daily Value (DV) for sodium per serving are high in sodium. Understanding nutrition labels of processed foods is essential.⁹ Restaurant food is also frequently high in sodium and must be selected carefully to minimize sodium intake.⁸

Fresh vegetables, whole grains, dry mature beans, and many fresh meats are examples of unprocessed foods which, on the average account for only ten percent of the total sodium intake. Most fresh and frozen fruits contain little or no sodium and are high in potassium. Table salt added in cooking or at the table accounts for five to ten percent of sodium in the diet.⁸

Reducing salt intake is one of several ways that people may lower their blood pressure. A potassium rich diet blunts the effects of salt on blood pressure in some individuals. Potassium is found in a wide variety of foods. Potassium rich fruits and vegetables include leafy green vegetables, root vegetables, and fruit from vines.⁸ Dietary sources of potassium are listed in the Dietary Guidelines for Americans, 2005 Appendix B-1:⁸ <http://www.healthierus.gov/dietaryguidelines/>.

The amount of potassium found in common foods is listed in the USDA National Nutrient Database for Standard Reference:¹⁰

<http://www.nal.usda.gov/fnic/foodcomp/search/>.

In addition to providing potassium, fresh fruit and vegetables also provide an array of other nutrients. Often, the brighter the color, the higher the content of vitamins, minerals, antioxidants, and phytochemicals in fruits and vegetables. Research points to the health promoting power of phytochemicals found in fruit, vegetables, and whole grains. Many of these disease fighters are found in the plant pigments so the more colorful the fruit or vegetable the better. Red and blue/purple fruits and vegetables may be beneficial to maintaining memory function (because of the antioxidants they contain) and should be included in the “other fruits” to be consumed weekly.¹¹

Fiber Rich Foods

The Nutritional Goal for total fiber intake listed in Table D1-1 USDA Daily Food Intake Patterns⁸ for women 51+ is 22 grams per day and 28 grams per day for 51+ men. Mature cooked beans such as navy, kidney, pinto, and split peas are rich in fiber, with over 15 grams fiber per cup. Frozen peas, mixed frozen vegetables, pumpkin, dates, dried plums (prunes), raw raspberries and black berries, sweet potatoes, and winter squash each provide six grams or more of dietary fiber per cup. Asian pears, raw raspberries, raw black berries, sweet potatoes, and winter squash each provide six grams or more of dietary fiber per cup.¹⁰ A complete ranking of fiber in foods may be found on the USDA National Nutrient Database for Standard Reference

http://www.ars.usda.gov/main/site_main.htm?modecode=12-35-45-00.¹⁰ Please note that the ranking is not always for the same amount by weight or measure.

Recommendations for Electrolytes and Water⁸

The Adequate Intake (AI) level for water was established at 3.7 liters/day for adult men and 2.7 L/day for adult women in a temperate climate. Total water intake includes drinking water, water in beverages, and water contained in food (including about 80 percent from fluids and 20 percent from foods). Individual water requirements can vary widely due to differences in physical activity, environment, and diet. The primary indicator of hydration status is plasma or serum osmolality. Appendix G-1 from the recent 2004 Institute of Medicine (IOM) report provides the serum osmolality by decile of total water intake in the third *National Health and Nutrition Examination Survey* (NHANES III).¹² Serum osmolality concentrations were essentially identical (the maximum range between the lowest and highest decile was only three mOsmol/kg). These data indicate that persons in the lowest and highest deciles of total water intake were neither systematically dehydrated nor hyperhydrated. Importantly, this pattern of findings also was evident in men and women age 71 and older.⁸

www.health.gov/dietaryguidelines/dga2005/report

Recommendations for Reducing Dental Caries: Practice Good Oral Hygiene and Consume Sugar and Starch Containing Foods and Beverages Less Frequently

According to The State of Aging in America, California ranked number one in meeting the Healthy People 2000 Oral Health (65+) target of complete tooth loss of no more than 20 percent.¹ Individuals over the age of 50 frequently have one or more chronic diseases or conditions that can affect their dental health. Among the elderly wearing defective dentures and the edentulous, poor oral health is thought to contribute to the development of involuntary weight loss associated with protein-energy malnutrition.

An American Dietetic Association position paper states that “Oral health and nutrition have a synergistic relationship.”¹³ The Surgeon General’s report in 2000 stated that 23 percent of 65- to 74-year-olds have severe periodontal disease. Periodontal disease (PD) is an oral infectious disease involving inflammation and loss of bone and the supporting tissue of the teeth. Systemic influences on the disease include diabetes mellitus, smoking, stress, immune status of the host, and presence of pathogens associated with PD in the subgingival flora. Malnutrition can elicit adverse alterations in the volume, antibacterial and physiochemical properties of saliva. Good dietary practices combined with the removal of the stimuli of the inflammatory periodontal response are important in diminishing the severity of PD.¹³ About 30 percent of adults 65 years and older are edentulous, compared to 46 percent 20 years ago. These figures are higher for those living in poverty.¹⁴

Most older Americans take both prescription and over-the-counter drugs. In all probability, at least one of the medications used will have an oral side effect--usually dry mouth. Many medications used to treat chronic diseases common in aging have the side effect of diminished salivary flow, depriving teeth of the many protective factors in saliva.¹⁵ The inhibition of salivary flow increases the risk for oral disease because saliva contains antimicrobial components as well as minerals that can help rebuild tooth enamel after attack by acid-producing, decay-causing bacteria.¹⁴

Use of herbs and dietary supplements can also impact nutrition and oral health. Moreover, elderly with reduced chewing ability take more drugs (including laxatives and anti-reflux agents) for gastrointestinal disorders than those with normal chewing ability.¹⁴ Difficulty with chewing, swallowing, and with mouth pain are identified as indicators of nutritional risk in older adults.¹³ Helping seniors access affordable and geriatric-friendly dental services is vital.

Fluoridated drinking water has also been shown to effectively reduce both crown and root decay in middle-aged and older adults. This benefit is important because seniors frequently experience gum recession which results in root exposure. This area of the tooth is highly sensitive and susceptible to dental

decay. Also, as previously stated, tooth retention in older U.S. residents has increased in recent years, which means that the number of teeth at risk for tooth decay in seniors has increased as well. It is important to note that restoring decay on the tooth roots is difficult and often comes with a poor prognosis for tooth longevity. Fluoridated drinking water has been shown to reduce the incidence of root decay up to 60 percent in seniors.¹⁵

Aging Adult Physical Activity

In addition to eating a healthful diet, regular physical activity is an important means for achieving good health. Regular physical activity can lower the risk of cardiovascular disease, type 2 diabetes, colon and breast cancer, depression, and osteoporosis, as well as help to maintain healthy weight and functional independence.¹⁶ A synergistic relationship may occur in health promotion programs that incorporate both healthy eating and physical activity.

CDC, the National Institutes of Health (NIH), the American Heart Association, and the American College of Sports Medicine all recommend that American adults accumulate at least 30 minutes of moderate-intensity physical activity on most days of the week.¹⁷ According to a report in the *Journal of the American Medical Association*, women aged 70-81 years old involved in the Nurses Health Study who regularly walked at an easy pace 1.5 hours/week (long term physical activity) had better cognitive function and less decline than those in the same age group who did not participate in regular physical activity.¹⁸

"The new *Blueprint* on physical activity and health sends a strong message that regular physical activity is important to promote health and reduce chronic diseases among individuals 50 years of age and older. There are many things that individuals can do to be physically active, but most of all it is important to choose activities that one enjoys, such as walking, gardening, bicycling or swimming and doing them regularly, several days a week." — Jeffrey P. Koplan, M.D., M.P.H., Director, CDC.¹⁹

An interactive exercise instruction can be found at "Exercise for Older Adults" website: <http://nihseniorhealth.gov/exercise/toc.html>. An illustrated exercise book is also located on the NIH Senior Health web site. More details about physical activity can be found in the Physical Activity chapter on this California Food Guide web site.

Recommendation for Alcoholic beverages⁸

The Dietary Guidelines for Americans 2005 defines moderate alcohol consumption as the consumption of up to one drink per day for women and up to two drinks per day for men.⁸ One drink is defined as 12 oz of regular beer, 5 oz of wine (12 percent alcohol), or 1.5 oz of 80-proof distilled spirits. Alcoholic beverages supply calories but provide few essential nutrients. If used, the

calories are to be counted as discretionary calories. The 51+ age groups have few discretionary calories so wise calorie choices are necessary. Please refer to Table 2 for caloric intake for specific alcoholic beverages.

People Who Should Not Drink Even in Moderation:⁸

- Individuals who cannot restrict drinking to a moderate level.
- Individuals who are taking prescription or over the counter drugs which can interact with alcohol.
- Individuals with specific medical conditions, have balance problems, or a history of falls.

Table 2: Calories in Selected Alcoholic Beverages⁸

Beverage	Approximate Calories 1 fluid ounce	Example Serving Volume	Approximate Total Calories
Beer (regular)	12	12 ounce	144
Beer (light)	9	12 ounce	108
White wine	20	5 ounce	100
Red wine	21	5 ounce	105
Sweet dessert wine	47	3 ounce	141
80 proof, distilled spirits (gin, rum, vodka, whiskey)	64	1.5 ounce	96

Recommendation for Food Safety

Food safety must under gird all dietary guidelines. Foodborne illness strikes over 76 million Americans each year. Older adults may have weakened immune systems making it difficult to fight foodborne pathogens. This makes the elderly vulnerable to severe complications including gastroenteritis-induced deaths.

Individuals aged 51+ should avoid:⁸

- raw (unpasteurized) milk, or products made from unpasteurized milk such as soft cheese (feta, brie, blue veined, Mexican style). Hard cheeses, processed cheese, cream cheese, cottage cheese and yogurt need not be avoided.
- raw or partially cooked eggs or foods containing raw eggs.
- raw or undercooked fin fish, shellfish, meat, and poultry.
- unpasteurized or untreated juices and raw sprouts.

In the U.S., 98 percent of the juice is pasteurized or otherwise treated to kill harmful bacteria. The Food and Drug Administration requires a warning label on the untreated juice products.⁸

Downloadable information about food safety for seniors is on the U.S. Food and Drug Administration Center for Food Safety and Applied Nutrition Website. Eight different topics are available at FDA/CFSSAN Seniors and Food Safety. Information about keeping food safe to eat can be accessed at http://www.fsis.usda.gov/Food_Safety_Education/. The Food Marketing Institute for Consumers has information about safe food storage.

Common Concerns/Strategies

Cognitive Decline and Dementia

Over 40 percent of the 85+ population has cognitive impairment which results in an increase in demand for long-term care services. Nearly 80 percent of individuals needing long-term care live at home. Perhaps more than any other disabling conditions, Alzheimer's disease and dementia impinge on the quality of life of family caregivers. The stress of family care giving has been shown to impact a care giver's immune system for up to three years after care giving ends, thus increasing their chances of developing a chronic illness themselves.²⁰

Forgetfulness

Some memory problems are serious, and others are not. People who have serious changes in their memory, personality, and behavior may suffer from dementia. Dementia seriously affects a person's ability to carry out daily activities. The term dementia describes a group of symptoms that are caused by changes in brain function. Dementia symptoms may include asking the same questions repeatedly; becoming lost in familiar places; being unable to follow directions; getting disoriented about time, people, and places; and neglecting personal safety, hygiene, and nutrition. Dementia is caused by many conditions.

Some conditions that cause dementia can be reversed, and others cannot. Furthermore, many different medical conditions may cause symptoms that seem like Alzheimer's disease, but are not. Some of these medical conditions may be treatable. Reversible conditions can be caused by a high fever, dehydration, vitamin deficiency and poor nutrition, bad reactions to medicines, problems with the thyroid gland, or a minor head injury. Medical conditions like these can be serious and should be treated by a doctor as soon as possible.²¹

Chronic Disease Prevention

NIH directly relates 30 percent of deaths from cardiovascular disease to diet and sedentary life style.²² The cost of providing health care for one person age 65+ is three to five times greater than the cost of someone younger than 65.²² Please refer to Table 3 below for the percentage of the senior population that suffers from specific chronic conditions.

Table 3: Selected Chronic Conditions Among Adults 65 and Older
(Expressed in percent of 65+ Population)²²

Chronic Conditions	
Stroke	8.6
Diabetes	15.2
Cancer	19.9
Heart Disease	20.4
Hypertension	35.9
Arthritis	49.2

Source: CDC, National Center for Health Statistics National Health Interview Survey 2000-2001. Respondent was considered to have “arthritic symptoms” if s/he answered “yes” to “During the past 12 months, have you had pain, aching, stiffness or swelling around a joint? And have the symptoms been present on most days for at least one month?”

Barriers to Implementation/Myths

Myth 1. Health inevitably declines as we get older. Reality: CDC states that people of any age can improve their health by adopting healthy behaviors.

Myth 2. If one takes a multivitamin, all nutrient needs are covered and it doesn't matter what one eats. Reality: There is more to a healthy diet than vitamins and minerals. The phytochemicals, as well as the fiber, found in plant foods are important to “defensive eating.”

Barrier 1. TV watchers confuse infomercials with factual nutrition advice. Many of these advertising programs promote “anti-aging” food supplements and target older audiences.

Barrier 2. TV, magazines, and newspapers are the top three sources of older consumer's nutrition information. The volume and misinformation received causes the consumer to be confused about who or what to believe.¹⁸

Barrier 3. The sources of potassium are not clear to consumers as potassium is not uniformly listed on food labels. Example: Potassium is not listed on bags of dry beans or many canned sweet or other potatoes or baked, kidney or other ready-to-eat dry beans but is listed on frozen French fries.

Barrier 4. Fast foods are not served with nutritional labels. Many seniors frequent fast food establishments to find low-cost meals and to socialize without having to cook.

Barrier 5. Health disparities related to nutrition and disease are seen among African American, Latino, and other ethnic groups. Refer to the ethnicity chapters on the California Food Guide website for details.

Opportunities for Improvement

One goal of Healthy People 2010 is to increase the quality and years of healthy life. Quality, to many individuals, means “aging in place”- remaining independent in one’s own home.²³

Opportunities:

1. Assist the elderly in remaining independent by referring individuals to the proper community agencies already in place.
2. Promote community resources and advocate for increased access to needed services.
3. Promote services providing dietary assessments, health screens, education and referrals to needed services.
4. Promote food programs that increase access to healthy food (i.e. Senior Gleaners, Food Stamps, Meals on Wheels, Senior Nutrition Programs). Potentially effective could be transportation programs that take seniors to grocery stores and farmer’s markets.
5. Emphasize the concept that nutrients should come primarily from wholesome foods. These contain not only vitamins and minerals found in supplements but also hundreds of natural substances which may protect against chronic health conditions.
6. Provide education for family members and other “in-home caregivers” about caring for the elderly with dementia and other chronic diseases and also caring for themselves and reducing stress. Work with disease-related support groups (such as Alzheimers, arthritis, heart disease) and promote them.
7. Provide evidence-based health information for the public through media including the internet, radio, television, and newsprint to minimize misinformation about food and diet.

Resources/Web Sites

1. American Dietetic Association. <http://www.eatright.org/> Contains a variety of position papers and links to published research articles. Accessed 1/27/06.
2. AoA, (Administration on Aging) US Dept. of Health and Human Services developed the 2003 edition. A Profile of Older Americans: 2003.
*Principal sources of data for the Profile are the US Bureau of the Census, the National Center on Health Statistics, and the Bureau of Labor Statistics. The annual Profile of Older Americans was originally developed and researched by Donald G. Fowles, AoA., and Saadia Greenberg.
<http://www.aoa.gov/> Accessed 1/25/06.
3. American Optometric Association: Eye on Nutrition.
<http://www.transceiver.com/eye/> Accessed 1/27/06.
4. American Society on Aging, 833 Market St. Suite 511, San Francisco, CA 94103. Live Well, Live Long. Health Promotion and Disease Prevention for Older Adults <http://www.asaging.org/cdc/index.cfm> Strategies for Cognitive Vitality (Module 2) Accessed 1/25/06.
5. Archstone Foundation: Fault Lines in the Shifting Landscape. A non-profit foundation which studies the aging trends and needs of Californians to prepare for the future. <http://www.archstone.org/>. Accessed 1/24/2006. Institute for the Future, 2744 Sand Hill Rd., Menlo Park, CA 94025.
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Accessed 4/11/06.
12. National Resource Center on Nutrition, Physical Activity and Aging:
<http://nutritionandaging.fiu.edu/>. Accessed 4/11/06.
13. Partnership for Food Safety Education – Gateway to Government Food Safety Information. 655 15th St. NW 7th Floor, Washington, DC 20005
<http://www.foodsafety.gov/>. Accessed 4/11/06.
Select from index “Seniors and Food Safety” choice of topics
Fight bac – <http://www.fightbac.org/main.cfm>. Accessed 4/11/06.
<http://www.homefoodsafety.org> (video, down loadable brochures, fact sheets) Accessed 4/11/06.
14. US Dept. Health & Human Service National Institutes of Health, 200 Independence Ave. S.W., Washington, DC 20201
 - Exercise for Older Adults: <http://nihseniorhealth.gov/exercise/toc.html>
Accessed 4/11/06.
 - Not Too Late Tips: <http://www.ndep.nih.gov/> Accessed 4/11/06.
 - Office of Dietary Supplements: <http://ods.od.nih.gov/index.aspx>
Accessed 4/11/06.
 - Chart for Sharing Information (about supplement use) with Health Care Team <http://www.cfsan.fda.gov/> Accessed 4/11/06.

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*Photo source: *Health Canada web site and Media Photo Gallery*, Health Canada. <http://www.hc-sc.gc.ca> Reproduced with the permission of the Minister of Public Works and Government Services Canada, 2005.

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