



S T R E N G T H ! P O S T U R E ! D E N S I T Y ! M O V E M E N T !

Down to the Bare Bones

Adults over 50 Can Preserve Bone Density and Reduce Bone Loss!

- Boost Calcium and Vitamin D Intake
- Move!! For Bone Health and Good Posture • Prevent Falls and Fractures

Boost Calcium and Vitamin D Intake

Calcium is a mineral needed for building strong bones and teeth throughout life. Calcium also enables muscle contraction, maintains blood pressure, and aids in wound healing. If there is not enough calcium in the diet for these functions, calcium is taken from the bones. When this happens, bones become thinner and more fragile, and may fracture easily.

Calcium recommendations

Bones are living tissues and are constantly being remodeled every three or four months. With age, old bone is removed faster than new bone can be built, resulting in some bone loss. As estrogen levels drop at menopause, women may lose 2 - 5 % of their bone mass annually. Adequate calcium intake can slow bone loss and lower the risk of fractures. Men and women over the age of 50 need 1500 mg of calcium daily to help maintain their bones. Adults should limit caffeine, salt, alcohol, and smoking to obtain maximum calcium benefits.

Supplemental Sources of Calcium

Calcium supplements are sometimes recommended for people who do not get enough calcium from food and drinks. Both calcium citrate and calcium carbonate are good choices. For best absorption, a supplement that also contains vitamin D is recommended. Calcium should be taken with food in doses of 500 mg or less.

Vitamin D Increases Calcium Absorption

Adults over age 50 may have a difficult time obtaining enough vitamin D. Their skin cannot produce vitamin D upon exposure to sunlight as efficiently as when they were younger. And foods that are sources of vitamin D are limited to milk, fortified soy beverages, margarine, eggs and fatty fish such as salmon, mackerel and herring. It has been estimated that more than 50% of elderly persons, both those living in their own homes and those living in nursing homes are deficient in this fat-soluble vitamin. Older adults should speak to their doctor about a supplement.



CALCIUM CONTENT OF FOODS

The table below shows the calcium content in some common foods. Such a chart can be used to evaluate the adequacy of an everyday diet.

FOODS WITH 300 mg CALCIUM

- Milk — 1 cup
- Calcium fortified soy beverage — 1 cup
- Calcium fortified orange juice — 1 cup
- Yogurt — 3/4 cup
- Cheese, processed — 2 1/2 slices

FOODS WITH 100-200 mg CALCIUM

- Salmon, canned with bones — 1/2 cup
- Almonds — 1/2 cup
- Tofu, made with calcium sulphate — 1/2 cup
- Bok Choy — 3/4 cup
- Navy Beans, cooked — 1 cup

SUMMARY OF RECOMMENDED NUTRIENTS FOR ADULTS**

Age (years)	Calcium (mg/day)	Vitamin D (IU/day)
19-50	1,000	400
over 50	1,500	800

** Dietary Reference Intakes (DRIs), 1997

** Brown, Jacques P., Josse, Robert G., and the Scientific Advisory Council of the Osteoporosis Society of Canada. CMAJ. November 12, 2002; 167 (90100)

Hamilton Health Sciences Addresses Osteoporosis Care Gap in Canada

This fall, Hamilton Health Sciences will launch a new community-wide chronic disease management campaign for osteoporosis called *Fracture - Think Osteoporosis*. A fragility/fracture clinic opening at the Chedoke site will be part of this initiative. The objective of this interdisciplinary program is to improve diagnosis and treatment of osteoporosis in

patients with fragility fractures in order to decrease the rate of subsequent fractures in individuals older than 50 years of age.

Under the direction of Dr. Alexandra Papaioannou, a geriatrician at Hamilton Health Sciences, the program will help create public awareness that fractures resulting from a fall may be the first sign of osteoporosis (brittle bone disease). Early

detection and treatment of osteoporosis is key to prevent more severe fractures such as hip fractures from occurring. Approximately 500 hip fractures occur each year in the City of Hamilton.

The new osteoporosis program is based on recent research by Dr. Papaioannou which showed that up to 98.3 per cent of patients who experienced a fracture did not receive a diagnosis or treatment for osteoporosis. This is significant considering that 70 per cent of individuals in Canada with a fracture after age 50 have osteoporosis.

Move!!

For Bone Health and Good Posture



Regular physical activity provides many health benefits. To improve overall health, Health Canada recommends that adults accumulate 30 to 60 minutes of physical activity at a moderate pace most days of the week.

Healthy bones are dense and strong and support the body to stand upright and move. Bones stay strong by being overloaded. Weight-bearing and resistance activities have been shown to be the best for bone health.

WEIGHT-BEARING ACTIVITIES involve bones and muscles working against gravity such as climbing stairs and hiking. These impact activities include the legs and feet carrying body weight which strengthens bones in the lower body, hip, and spine areas.

RESISTANCE ACTIVITIES involve pulling, pushing, or lifting body weight or objects such as using free weights. Bones become stronger by strengthening the muscles in that area.

RECOMMENDATIONS

For adults over 50 years old, limiting the loss of bone mass is the target. Low impact activities such as walking when combined with climbing stairs and/or step aerobics are recommended. Resistance activities are encouraged that focus on strength (e.g., exercise bands), and balance (e.g., Tai Chi).

Before starting any physical activity program, the older adult should consult with a health care professional, and/or fitness professional.

Prevent Falls and Fractures

Falls can be related to health problems, osteoporosis, poor diet, medication side effects, alcohol use, poor vision, balance problems, inadequate lighting and other hazards.

These risk factors interact and increase the risk of falls. A few simple steps can help prevent a fall and related injuries.

ADULTS AND OLDER ADULTS SHOULD:

- Tell their doctor if they have had a fall to find out why they fell
- Take medication as directed
- Have vision checks regularly
- Carry an up to date medication record for Dr. visits and emergency care
- Know the effect of alcohol, and effect of alcohol on prescribed medications
- Work towards 30-60 minutes of physical activity most days of the week
- Choose physical activities appropriate for personal health and ability level
- Climb stairs; do step aerobics or Tai Chi, and weight training or aquafitness
- Stay involved; people are healthier if they socialize, are active and eat well
- Get rid of household clutter and loose mats
- Use good lighting, sensor or night lights, and non-slip bathmats
- Use grab bars, and stairway handrails on all stairs to improve balance
- Keep walkways free of ice and snow
- Avoid high risk activities, for example, standing on chairs

Note: *NEW research suggests vitamin D not only helps prevent fractures, but may also prevent falls by improving muscles (see Summary of Recommended Nutrients for Adults.)

*Bischoff-Ferrari, H.A., Dawson-Hughes, B., Willet, W.C., Staehelin, H.B., Bazemore, M.G., Zee, R.Y, Effect of Vitamin D on Falls, JAMA. April 28, 2004, Vol. 291 No. 16

Bone Mineral Density Test to Screen for Osteoporosis

Osteoporosis is a disease that causes bones to gradually thin and become so porous or brittle that they break easily. Fractures of the hip, spine, or wrist are often linked to osteoporosis. It takes years of steady bone loss before any signs of the disease are experienced. In fact, many people do not know they have the disease until their bones are so weak that a strain, bump, or fall causes a fracture. Approximately 1 in 4 women and 1 in 8 men over the age of 50 have osteoporosis. Too often a bone fracture is the first symptom! Bone health can be improved in those with osteoporosis.

To learn more about Falls and Injury Prevention, and Osteoporosis contact:

*Public Health and Community Services
Colleen Stahlbrand
905-546-2424 Ext. 3758*

*Nutrition and Physical Activity Advice Line
905-546-3630
www.hamilton.ca/phcs*

*Osteoporosis Society of Canada
Hamilton Chapter: 905-525-5398
www.osteoporosis.ca*

The Public Health & Community Services Department provides information, resources, consultation, and programs on various health topics to enable residents in the City of Hamilton to lead healthy lifestyles.

Visit the Public Health & Community Services Department web site at www.hamilton.ca/phcs for more information about healthy lifestyles.

For more information on Prime Time please contact 905-546-4680