

Impact of the Intervention of a Specialized Osteoporosis Unit on Fracture Risk in Women Starting Treatment with Aromatase Inhibitors

Purificación Martínez, Elena Galve, Virginia Arrazubi, M. Ángeles Sala, Seila Fernández, Clara E. Pérez, Juan F. Arango, Iñaki Torre.

Lifestyle and dietary recommendations for osteoporosis treatment and prevention

Osteoporosis is a progressive loss of bone mass. Bones “loss calcium”, becoming more porous and more fragile.

Treatment and prevention of osteoporosis are based on:

1. DIETARY RECOMMENDATIONS

Calcium-rich diet:

- Foods containing more calcium are dairy, blue fish, and dry fruits.
- The calcium needs depend on age and life circumstances: pregnant women, postmenopausal women, and elderly have increased needs of calcium.
- Vitamin D is necessary for calcium to be properly absorbed in the bowel; therefore, maintaining optimal vitamin D levels is essential for maintaining bone calcium levels.

Calcium-rich foods	
Skimmed milk (250 mL): 330 mg	Cottage cheese (100 g): 82 mg
Whole milk (250 mL): 288 mg	Vanilla milkshake (250 mL): 400 mg
Calcium-rich milk (250 mL): 400 mg	Ice-cream (1 portion): 200 mg
Yogurt (125 g): 150 mg	Canned sardines (100 g): 437 mg
Danonino™ (flavored yogurt for kids) (100 g): 110 mg	Almonds, hazelnuts (100 g): 240 mg
Milky chocolate (100 g): 228 mg	Dried figs (100 g): 125 mg
Fresh cheese (100 g): 300 mg	Raisins (100 g): 62 mg
Melted cheese, Camembert (100 g): 547 mg	Chard, spinach, beans (100 g): 110 mg
Emmental cheese (100 g): 1,180 mg	White bread (100 g): 48 mg
Roquefort cheese (100 g): 700 mg	Orange (100 g): 41 mg

The following uptakes are recommended to achieve the daily target of 1,500 mg of calcium:

- 4 glasses of milk or
- 2 yogurts and 2 glasses of milk or
- 1 cheese portion (40-50 g), 2 glasses of milk, and 1 yogurt or cottage.

Daily calcium needs		
1-5 years old: 600 mg	26-65 years old: 1,000 mg	Over 65 years old: 1,500 mg
6-10 years old: 800-1,200 mg	Pregnancy: 1,200 mg	Menopause (without hormone replacement therapy): 1,500 mg
11-24 years old: 1,200-1,500 mg	Breastfeeding: 1,500 mg	

2. TOXIC HABITS

- Avoid alcohol, coffee, and cigarettes.

3. PHYSICAL ACTIVITY

- Perform physical activity by preventing a sedentary lifestyle:
 - There is a different type of exercise for everyone.
 - There are physical exercises specifically tailored for osteoporosis patients.
 - Pay attention to posture recommendations in your activities of daily living; this will prevent shakes, hits, and over-torques.
 - Sets of combined exercises are useful for the column, whereas non-weight-bearing resistance exercises are more suitable for the hip.
- Physical exercise increases bone mass, improves balance, and reduces falls.

4. FRACTURE PREVENTION

- Create a safety environment at home, be extremely careful on the street, and correct your posture.
- At home:
 - Remove all objects that may cause to stumble (e.g. carpets), keep an appropriate lighting, use stairway handrails, install handgrip bars in bathrooms and shower areas, etc.
- Outdoor:
 - Be careful with public works on the roadway, slopes, hard braking of public transports, etc.
- Other:
 - Wear eyeglasses with the correct prescription and shoes with non-slip sole, use a stick if necessary, avoid taking drugs and drinks that may cause dizziness, avoid sudden movements and awkward postures, etc.

POTENTIAL SOURCES OF FALLS AND MEASURES TO PREVENT THEM

Cause	Measure to be taken
Vision disturbances	Eye assessment, ideally by an ophthalmologist. Correction – whenever it is possible – of causes of visual impairment: cataracts, eyeglasses prescription.
Dizziness	Neurological assessment. Identification and treatment of possible causes.
Use of hypnotic drugs	Avoid the use of hypnotic drugs if possible. If they are necessary, adjust treatment to the

	lowest dose. Switch to short acting hypnotic drugs. Watch drug interactions leading to potentiation of sedative effects.
Unsafety furniture in the bathroom	Adapted furniture. Handgrip bars. Non-slip floor. Alarm button.
Unsafety features at home	Adequate lighting. Avoid children's toys (including wax color pencils), wires, and carpets.
Gait impairments (e.g. neurological or rheumatological)	Consider using a stick, a walker, or walk accompanied by somebody, if it is possible.
Failure of all measures mentioned above	Apprise the possibility of wearing hip protectors.