

Myrtue Medical Center
Osteoporosis & Diet: Calcium and Vitamin D
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A. Risk Factors associated with Osteoporosis :

1. Some we can control:
 - Consistently low calcium intake
 - Inadequate amounts of Vitamin D
 - Inactive lifestyle
 - Smoking
 - Use of alcohol
2. Some we cannot change:
 - Onset of menopause
 - Thin frame and/or small bones
 - Race
 - Sex
 - Age
 - Family hx of osteoporosis

B. Role of Calcium:

Needed to maintain strong bones and teeth
Necessary for muscles and blood vessels to function properly
Necessary for Blood to Clot
Low intakes associated with low bone mass, rapid bone loss, and high fracture rates.

C. Recommended amounts and sources of Calcium: See handouts
“Nutrition fact sheet”, “Calcium Counts” and “Calcium Alternates”

- safe upper limit of 2500 mg daily
- excess amounts can lead to kidney stones, high blood calcium, impaired absorption of iron, zinc, or magnesium.

D. Vitamin D Recommendations and sources: See “Nutrition Fact Sheet”

- Needed to help your body absorb calcium
- Handout indicates 600 IU daily, but many sources recommend even higher – with a goal of 800-1000 IU after age 71.
- Safe upper limit of 2000 IU daily
- excess amounts can lead to a high blood calcium level which could lead to calcification in the kidneys and arteries.

- E. Lactose Intolerance:** Caused by the bodies' inability to digest lactose fully, can cause diarrhea, gas, severe stomach pains or cramping. Tips that may be helpful to ease the intolerance:
- Consume dairy food with other foods
 - Consume foods lower in total lactose content – like aged cheeses, buttermilk.
 - Introduce dairy in small amounts and gradually increase until you find the amount you can tolerate.
 - Yogurt with active cultures helps to digest lactose.
 - Look for lactose free milk and milk products in your grocery store.
 - You can use over the counter products such as Lactaid, Dairy Ease to help body breakdown the lactose in the foods anytime you consume dairy products.
- F. Supplements can be very useful to help meet the bodies need of calcium.**
1. Calcium citrate(Example: Citracal) most easily absorbed. Higher cost, used to fortify Orange juices and cereals.
 2. Calcium carbonate (Examples: Tums, OsCal, or Viactiv)contains the highest amount of calcium and is best absorbed when taken with other foods. May cause gas and constipation.
 3. Calcium phosphate(Example: Posture) well-absorbed, does not cause gas and constipation. Middle of the line for cost.
 4. Supplements should not make up 100% of your bodies daily needs as they are missing some other key nutrients that we get from dairy foods (such as, protein, Vitamin D, Magnesium, Phosphorus.)
 5. When taking Calcium your body only absorbs amounts of about 500 milligrams at a time so if taking supplements spread them through the day for best absorption.
- G. Some foods can interfere with the Calcium absorption and retention.**
1. Protein: High protein intake increases loss of calcium
 2. Sodium: High sodium intake increases the loss of calcium
 3. Caffeine: Excessive amounts of caffeine increase urinary and intestinal loss of calcium.
 4. High Fiber: Can bind with calcium and not allow it to be absorbed as well.
 5. High fat foods: also do not allow calcium to be as well absorbed.
- H. Questions? Contact Julie Klein, RD, LD 755-4318 for more info.**