

Calcium (Ca++) Supplement

BENEFIT ↔ RISKS

- ▣ Prevents osteoporosis

(bone density test)

- ▣ Increase chance of artery calcification
- ▣ Increase chance of kidney stone
- ▣ Constipation

Products Available

		<u>Elemental Ca⁺⁺</u>
▣ Calcium Carbonate (CaCO ₃)	1250mg	500mg (40%)
▣ Calcium Sandox Syrup		110mg/5ml
▣ Calcium Citrate	950mg	200mg (21%)
▣ Calcium Lactate	650mg	84mg (13%)
▣ Calcium Effervescence tablet		500mg
▣ Calcium Gluconate		(9%)

Vitamin D

- ▣ Needed for the absorption of calcium
- ▣ 25 mcg = 1000 iu
- 10 mcg = 400 iu

D2 = Ergocalciferol
mostly in plants

D3 = Cholecalciferol
can be synthesised under skin
more readily metabolised in liver to a
bioactive form of D

Dosage Suggested

- ▣ For most post-menopausal women with osteoporosis:
1200 mg Ca⁺⁺ plus 1000 iu Vitamin D per day
- ▣ Calcium 1000mg and Vitamin D 800-1000 iu to reduce risk of fractures for geriatrics

Dietary Calcium Sources

▣ Nuts	(30gm)	50 mg
▣ Milk/yogurt	(8 oz)	300 mg
▣ Hard cheese	(29 gm)	300mg
▣ Tofu	(5x4x4cm ³)	500mg
▣ Sardines	(3 oz)	325mg
▣ Salmon	(3oz)	180mg

Thyroid and Calcium

- ▣ Thyroid gland secretes the hormone Calcitonin which helps to control (decrease) Ca^{++} level.
T4 and T3
- ▣ Parathyroid gland secretes the hormone PHT which helps to control (increase) Ca^{++} level

How To Take

- ▣ dosage greater than 500mg per day, should be in divided doses
- ▣ CaCO_3 to be taken with meal for better absorption and reduce gastric irritation
- ▣ Calcium Citrate to be taken before meals for better absorption. Recommended for patients taking stomach acid suppressants.