

SMICAL[®]-CK

(Cissus Quadrangularis (Hadjod) with Calcium, VitaminD3 & VitaminK2-7 Tablets)

Composition:

Each serving/tablet Contains: Energy	
.....	2.00kcal
Carbohydrate	0.300gms
Sugar.....	0.300gms
Protein	0.010gms
Fat.....	0.00
Calcium carbonate	1250mg
(from oyster rshell)	
Equivalent to elemental Calcium	500mg
Cissus qudrangularis (Hadjod)	500mg
VitaminD ₃ (Cholecalciferol)	1000IU
VitaminK2-7	60mcg

Clinical Pharmacology

Calcium Carbonate

Calcium increases plasma calcium levels and reduces calcium flux from osteocyte activity by reducing the secretion of parathyroid hormone (PTH). Calcium stimulates G-protein coupled calcium receptor on the surface of parathyroid cells. The reduction in calcium flux increases the amount of calcium deposited in bone resulting in an increase in bone mineral density. The reduction in PTH secretion also reduces the amount of vitamin D metabolized to its active form, calcidiol. Since calcidiol increases the expression of calcium dependent ATPases and transient receptor potential cation channel subfamily V member 6 (TRPV6) both of which are involved in calcium uptake from the gut, a reduction in calcidiol results in less calcium absorption. Additionally, TRPV5, the channel responsible for calcium reabsorption in the kidney, is down regulated when PTH secretion is reduced thus increasing calcium excretion via the kidneys. Another hormone, calitonin, is likely involved in the reduction of bone reabsorption during periods of high plasma calcium.

VitaminD3

Vitamin D is hydroxylated in the liver to form 25-hydroxycholecalciferol and then undergoes further hydroxylation in the kidney to form the active metabolite 1, 25 dihydroxycholecalciferol (calcitriol). In its biologically active form vitamin D3 stimulates intestinal calcium absorption, incorporation of calcium into the osteoid and release of calcium from bone tissue. In the small intestine it promotes rapid and delayed calcium uptake. The passive and active transport of phosphate is also stimulated. In the kidney, it inhibits the excretion of calcium and phosphate by promoting tubular resorption. The production of parathyroid hormone (PTH) in the parathyroid is inhibited directly by the biologically active form of vitamin D3. PTH secretion is inhibited additionally by the increased calcium uptake in the small intestine under the influence of biologically active vitamin D3.

Cissus quadrangularis

The signaling pathway is a network of proteins that passes signals from receptors on the surface of the cell to DNA expression in the nucleus. It controls cell-cell communication in the embryo and adult. Mutations in these signaling molecules are strongly associated with changes in bone mineral density and fractures.

VitaminK2-7

Vitamin K acts as a cofactor to activate Glu proteins these proteins can participate in the calcium metabolism if the glutamic acid residues are carboxylated in the gamma position to gamma-carboxyglutamic (Gla) acid.

Indications

SMICAL-CK tablets use in Calcium used clinically is usually prescribed as dietary supplement, Prevention and treatment of vitamin D deficiency states. Hypocalcemic seizures, rickets, chronic illness, Fractures & bone healing, to increase BMD, In Post menopausal Osteoporosis.

Contraindications

Hypersensitivity to cholecalciferol, ergocalciferol, or vitamin D metabolites (eg calcitriol, calcifediol, alfalcidol, calcipotriol). Hypercalcemia (exacerbation with enhanced toxicity) Hypervitaminosis D (worsening of condition, pretherapy 25-hydroxycholecalciferol levels should be considered in selected patients)

Use in special population

Postmenopausal Osteoporosis:

Continuous treatment of postmenopausal osteoporosis with SMICAL-CK tablets for three years is safe and significantly reduces the rate of new vertebral fractures in women with this disorder. Vitamin D₃ increase bone mineral density (BMD), increase bone density, decreased bone turnover, and decreased nonvertebral fractures in women with a mean age of approximately 63-65 years

Precautions and Warnings

Hypercalcemia/hypervitaminosisD),difficulty absorbing nutrition from food calcium not use.

Drug interactions

SMICAL-CK tablets can decrease the absorption of other drugs such as tetracycline antibiotics, bisphosphonates, estramustine ,levothyroxine and quinolone antibiotics.

Adverse Effects

SMICAL-CK tablets causes constipation or stomach upset occurs. Nausea, vomiting, loss of appetite, unusual weight loss mood change, signs of kidney problems headache, increased thirst occur.

Overdose

Overdose of SMICAL-CK tablets causes trouble in breathing. Nausea, vomiting, loss of appetite, weakness, tiredness drowsiness.

For Therapeutic Use.

Route of administration: Oral

Type of tablet: tablet

Usages: As a nutritional dietary supplement.

Dosage: As directed by healthcare professional.

Storage: Store in cool, dry and dark place, Protect from direct sunlight & moisture. Keep the product out of reach of children.

DIETARY HEALTH SUPPLEMENT

NOT FOR MEDICIANL USE

Presentation: SMICAL-CK tablet available as 10x10 Tablets.

Marketed By:



EPIONE PHARMACEUTICALS PVT.LTD.

804, Suyog Center, Gultekdi, Pune-411037 (MH), India

