Vitamin D3
25mg

HERBIEVITE VITAMIN D_3 SOFTGELS

Western Herbal Complementary Medicine and Health Supplement.

HERBIEVITE VITAMIN D_3 is unregistered and has not been evaluated by SAHPRA for its quality, safety or intended use. This medicine is not intended to diagnose, treat, cure or prevent any disease.

SCHEDULING STATUS
Not scheduled

NAME OF THE MEDICINE
HERBIEVITE VITAMIN D_3 (softgels)

QUALITATIVE AND QUANTITATIVE COMPOSITION
Active Substance:

Each capsule contains: 25 mcg Vitamin D_3 (cholecalciferol), 1000 IU

PHARMACEUTICAL FORM

softgels, HERBIEVITE VITAMIN D_3: clear oval softgel.

CLINICAL PARTICULARS
THERAPEUTIC INDICATIONS
Vitamin D3 (cholecalciferol) use is indicated to:
- Help in the absorption and use of calcium and phosphorous
- Contribute to normal cell division
- Contribute to normal blood calcium levels
- Contribute to the development and maintenance of strong bones and teeth
- Contribute to the maintenance of normal muscle function
- Contribute to the normal function of the immune system

Calcium intake, when combined with sufficient vitamin D, a healthy diet and regular exercise, may reduce the risk of developing osteoporosis.

Vitamin D_3 (cholecalciferol) is for the treatment and prevention of vitamin D deficiency.

POSOLOGY AND METHOD OF ADMINISTRATION
Take 1 softgel daily or as directed by your healthcare practitioner.

CONTRAINDICATIONS

HERBIEVITE VITAMIN D_3 must not be used in patients with:
- Hypersensitivity to the active substance (Cholecalciferol) or to any of the excipients listed in section 6.1
- Hypercalcaemia and/or hypercalciuria
- Nephrolithiasis (Renal calculi)
- Hypervitaminosis
- Severe renal impairment

SPECIAL WARNINGS AND PRECAUTIONS FOR USE
- HERBIEVITE VITAMIN D_3 should be used with caution in patients with impairment of renal function and the effect on calcium and phosphate levels should be monitored. The risk of soft tissue calcification should be taken into account. In patients with severe renal insufficiency, vitamin D in the form of Cholecalciferol is not metabolised normally and other forms of vitamin D should be used.
- HERBIEVITE VITAMIN D_3 should not be taken by patients with a tendency to form calcium-containing renal calculi.
- Caution is required in patients receiving treatment for cardiovascular disease (see section 4.5 – Interaction with other medicines and other forms of interaction).
- HERBIEVITE VITAMIN D_3 should be prescribed with caution to patients suffering from sarcoidosis because of the risk of increased metabolism of vitamin D to its active form. These patients should be monitored with regard to the calcium content in serum and urine.
- Allowances should be made for vitamin D supplements, other vitamin D containing medicines or from other sources.
- The need for additional calcium supplementation should be considered for individual patients. Calcium supplements should be given under close medical supervision.
- Medical supervision is required whilst on treatment to prevent hypercalcaemia.

PAEDIATRIC POPULATION
HERBIEVITE VITAMIN D3 should not be given to infants and children under the age of 12.

INTERACTION WITH OTHER MEDICINES AND OTHER FORMS OF INTERACTION
- Phosphate infusions should not be administered to lower hypercalcaemia of hypervitaminosis D because of the dangers of metastatic calcification.
- Patients treated with cardiac glycosides may be susceptible to high calcium levels and should have ECG parameters and calcium levels monitored. It is recommended to reduce the dose or interrupt treatment if the calcium content in the urine exceeds 7.5 mmol/24 hours (300 mg/24 hours).
- Simultaneous administration of benzothiadiazine derivatives (thiazide diuretics) increases the risk of hypercalcaemia because they decrease the calcium excretion in the urine. The calcium levels in plasma and urine should therefore be monitored for patients undergoing long-term treatment.
- If Cholecalciferol is combined with metabolites or analogues of vitamin D careful monitoring of serum calcium levels is recommended.
- Anti-convulsants e.g. phenytoin, phenobarbital, primidone may diminish the effect of Cholecalciferol due to hepatic enzyme induction.
- Rifampicin may reduce the effectiveness of Cholecalciferol due to hepatic enzyme induction.
- Isoniazid may reduce the effectiveness of Cholecalciferol due to inhibition of the metabolic activation of Cholecalciferol.
- Drugs leading to fat malabsorption, e.g. orlistat, liquid paraffin, cholestyramine, may impair the absorption of Cholecalciferol.
- The cytotoxic agent actinomycin and imidazole antifungal agents interfere with vitamin D activity by inhibiting the conversion of 25-hydroxyvitamin D to 1,25-dihydroxyvitamin D by the kidney enzyme, 25-hydroxyvitamin D-1-hydroxylase.
- Concomitant use of glucocorticoids can decrease the effect of vitamin D.

FERTILITY, PREGNANCY AND LACTATION
PREGNANCY
The cholecalciferol metabolite, 25(OH)D, crosses the placenta; maternal serum concentrations correlate with fetal concentrations at birth.
Maternal hypercalcemia, possibly caused by excessive vitamin D intake during pregnancy, has been associated with hypercalcemia in neonates, which may lead to supravalvular aortic stenosis syndrome, the features of which may include retinopathy, mental or growth retardation, strabismus, and other effects. Hypercalcemia during pregnancy may also lead to suppression of parathyroid hormone release in the neonate, resulting in hypocalcemia, tetany, and seizures.

BREASTFEEDING
Vitamin D_3 (Cholecalciferol) and its metabolites are excreted in breast milk. Overdose in infants induced by nursing mothers has not been observed. However, when prescribing additional vitamin D to a breast-fed child the practitioner should consider the dose of any additional vitamin D given to the mother.
Caution should be exercised when taking HERBIEVITE VITAMIN D3 while pregnant or breast-feeding. Please consult your healthcare practitioner first if your pregnant or lactating.

EFFECTS ON ABILITY TO DRIVE AND USE MACHINES
HERBIEVITE VITAMIN D_3 has no effect on your ability to drive vehicles or operate machinery.

UNDESIRABLE EFFECTS
Most people do not commonly experience side effects with vitamin D at normal doses.

Along with its needed effects, Vitamin D_3 (cholecalciferol) may cause some unwanted effects.
Incidence not known
- Cough
- Difficulty swallowing
- Dizziness
- Fast heartbeat
- Hives or itching

- Puffiness or swelling of the eyelids or around the eyes, face, lips or tongue
- Skin rash
- Tightness in the chest
- Unusual tiredness in the chest
- Unusual tiredness or weakness

METABOLIC: Metabolic side effects have included Hypercalcemia
RENAL: Uncommon: Hypercalciuria
DERMATLOGIC: Rare: Pruritus, rash, urticaria
HYPERSENSITIVITY: Frequency not reported: Hypersensitivity reactions such as angioedema or laryngeal edema
GASTROINTESTINAL: Frequency not reported: Nausea, vomiting

REPORTING OF SUSPECTED ADVERSE REACTIONS.
Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Health care providers are asked to report any suspected adverse reactions to:

- SAHPRA via the "6.04 Adverse Drug Reactions Reporting Form", found online under SAHPRA's publications: https://www.sahpra.org.za/Publications/Index/8
- CONTEGO PHARMACEUTICALS (Pty) Ltd
  250 Nadine Street, Robertville, Roodepoort, Gauteng, South Africa

OVERDOSE
Acute or chronic overdose of Cholecalciferol can cause hypercalcaemia, an increase in the serum and urinary concentrations of calcium.

The symptoms of hypercalcaemia are not very specific and consist of nausea, vomiting, diarrhoea often in the early stages and later constipation, anorexia, fatigue, headache, muscle and joint pain, muscle weakness, polydipsia, polyuria formation of renal calculi, nephrocalcinosis, kidney failure, calcification of soft tissues, changes in ECG measurements, arrhythmias and pancreatitis. In rare and isolated cases there are reports that hypercalcaemia is fatal.

A very serious allergic reaction to this medicine is rare. However, get medical help right away if you notice any symptoms of a serious allergic reaction, including: rash, itching/swelling (especially of the face/tongue/throat), severe dizziness, trouble breathing.

Treatment of overdose
A normalisation of hypercalcaemia due to vitamin D intoxication lasts several weeks. The recommendation for the treatment of hypercalcaemia is the avoidance of any further administration of vitamin D, including supplements, dietary intakes and the avoidance of sunlight. A low calcium or calcium-free diet can also be considered.

Rehydration and the treatment with diuretics e.g. furosemide to ensure adequate diuresis should be considered. Additional treatment with calcitonin or corticosteroids can also be considered.
Phosphate infusions should not be administered to lower hypercalcaemia of hypervitaminosis D because of the dangers of metastatic calcification.

PHARMACOLOGICAL PROPERTIES
PHARMACODYNAMIC PROPERTIES
Pharmacological classification: D 32.16 Other – Western Herbal Complementary Medicine.
Vitamin D (ergocalciferol-D2, cholecalciferol-D3, alfacalcidol) are fat-soluble sterols, sometimes considered to be hormones or hormone precursors, which are essential for the proper regulation of calcium and phosphate homoeostasis and bone mineralization.

Cholecalciferol (vitamin D) is a provitamin. The active metabolite, 1,25-dihydroxyvitamin D (calcitriol), stimulates calcium and phosphate absorption from the small intestine, promotes secretion of calcium from bone to blood; promotes renal tubule phosphate resorption. Cholecalciferol is the naturally occurring form of vitamin D. It is produced from 7-dehydrocholesterol, a sterol present in mammalian skin, by ultraviolet irradiation.

PHARMACOKINETIC PROPERTIES
ABSORPTION
Vitamin D substances are well absorbed from the gastrointestinal tract. The presence of bile is essential for adequate intestinal absorption; absorption may be decreased in patients with decreased fat absorption.

DISTRIBUTION
Absorbed vitamin D circulates in the blood in association with vitamin D–binding protein. Vitamin D and its metabolites circulate in the blood bound to a specific α-globulin. Vitamin D can be stored in adipose and muscle tissue for long periods of time. It is slowly released from such storage sites and from the skin where it is formed in the presence of sunlight or ultraviolet light. Ergocalciferol and cholecalciferol have a slow onset and a long duration of action.

Cholecalciferol and ergocalciferol are hydroxylated in the liver by the enzyme vitamin D 25-hydroxylase to form 25-hydroxycholecalciferol (calcifediol) and 25-hydroxyergocalciferol respectively. These compounds undergo further hydroxylation in the kidneys by the enzyme vitamin D 1hydroxylase to form the active metabolites 1,25-dihydroxycholecalciferol (calcitriol) and 1,25-dihydroxyergocalciferol respectively.

Further metabolism also occurs in the kidneys, including the formation of the 1,24,25-trihydroxy derivatives. Of the synthetic analogues, alfacalcidol, dihydrotachysterol, and doxercalciferol are converted directly in the liver to their active metabolites (calcitriol, 25-hydroxydihydrotachysterol, and 1,25-dihydroxyergocalciferol respectively).

ELIMINATION
Vitamin D compounds and their metabolites are excreted mainly in the bile and faeces with only small amounts appearing in urine; there is some enterohepatic recycling but it is considered to have a negligible contribution to vitamin D status. Certain vitamin D substances may be distributed into breast milk.

PHARMACEUTICAL PARTICULARS
LIST OF EXCIPIENTS
Corn Starch, Magnesium Stearate, Silicone Dioxide

INCOMPATIBILITIES
Not applicable

SHELF LIFE
3 years

SPECIAL PRECAUTIONS FOR STORAGE
Store at or below 25 °C protected from light and moisture. Keep container tightly closed.
KEEP OUT OF REACH OF CHILDREN.

NATURE AND CONTENTS OF CONTAINER
HERBIEVITE VITAMIN D3 are packed in white HDPE containers with white cap, containing a desiccant and 30 softgels.

SPECIAL PRECAUTIONS FOR DISPOSAL AND OTHER HANDLING
No special requirements.

HOLDER OF CERTIFICATE OF REGISTRATION
Contego Pharmaceuticals (Pty) Ltd
250 Nadine Street
Robertville, Roodepoort
Gauteng, South Africa
+27 87 150 7529

REGISTRATION NUMBER
To be allocated.

DATE OF FIRST AUTHORISATION / RENEWAL OF THE AUTHORISATION
To be allocated.