

## MBDZ - General Information:

A benzimidazole that acts by interfering with carbohydrate metabolism and inhibiting polymerization of microtubules. [PubChem]

## Related offers from our Drug Store:



### Vermox (Mebendazole) - for \$38.44

Vermox is used to treat infections caused by worms such as whipworm, pinworm, roundworm, and hookworm. It is also used to treat infections caused by more than one of these worms at the same time.

**\* >> all this drugs based on Mebendazole (usually they can be used instead of MBDZ)**

## Pharmacology:

MBDZ is a (synthetic) broad-spectrum anthelmintic. The principal mode of action for albendazole is by its inhibitory effect on tubulin polymerization which results in the loss of cytoplasmic microtubules.

## MBDZ for patients

Patients should be informed of the potential risk to the fetus in women taking VERMOX® (mebendazole) during pregnancy, especially during the first trimester .

Patients should also be informed that cleanliness is important to prevent reinfection and transmission of the infection.

## MBDZ Interactions

Preliminary evidence suggests that cimetidine inhibits mebendazole metabolism and may result in an increase in plasma concentrations of mebendazole.

## MBDZ Contraindications

VERMOX® (mebendazole) is contraindicated in persons who have shown hypersensitivity to the drug.

Additional information about MBDZ

**MBDZ Indication:** For the treatment of *Enterobius vermicularis* (pinworm), *Trichuris trichiura* (whipworm), *Ascaris lumbricoides* (common roundworm), *Ancylostoma duodenale* (common hookworm), *Necator americanus* (American hookworm) in single or mixed infections.

**Mechanism Of Action:** MBDZ causes degenerative alterations in the tegument and intestinal

cells of the worm by binding to the colchicine-sensitive site of tubulin, thus inhibiting its polymerization or assembly into microtubules. The loss of the cytoplasmic microtubules leads to impaired uptake of glucose by the larval and adult stages of the susceptible parasites, and depletes their glycogen stores. Degenerative changes in the endoplasmic reticulum, the mitochondria of the germinal layer, and the subsequent release of lysosomes result in decreased production of adenosine triphosphate (ATP), which is the energy required for the survival of the helminth. Due to diminished energy production, the parasite is immobilized and eventually dies.

**Drug Interactions:** Ethotoin The hydantoin decreases the efficiency of mebendazole  
Fosphenytoin The hydantoin decreases the efficiency of mebendazole  
Mephenytoin The hydantoin decreases the efficiency of mebendazole  
Phenytoin The hydantoin decreases the efficiency of mebendazole

**Food Interactions:** Take with food. Lipid rich meals may improve absorption.

**Generic Name:** Mebendazole

**Synonyms:** Not Available

**Drug Category:** Antinematodal Agents

**Drug Type:** Small Molecule; Approved

**Other Brand Names containing Mebendazole:** Bantanol; Besantin; Equivurm Plus; Lomper; MBDZ; MEBENDAZOLE, 99%; Mebendazole (JAN/USP); Mebendazole (USAN); Mebenoazole; Mebenvet; Mebex; Mebutar; Noverme; Ovitel min; Pantelmin; Telmin; Vermicidin; Vermirax; Vermox; Vermox (TN); Verpanyl;

**Absorption:** Poorly absorbed (approximately 5 to 10%) from gastrointestinal tract. Fatty food increases absorption.

**Toxicity (Overdose):** Acute oral toxicity (LD<sub>50</sub>): 620 mg/kg [Mouse]. Symptoms of overdose include elevated liver enzymes, headaches, hair loss, low levels of white blood cells (neutropenia), fever, and itching.

***Protein Binding:*** 90-95%

***Biotransformation:*** Primarily hepatic. Primary metabolite is 2-amino-5-benzoylbenzimidazole, but also metabolized to inactive hydroxy and hydroxyamino metabolites. All metabolites are devoid of anthelmintic activity.

***Half Life:*** 2.5 to 5.5 hours (range 2.5 to 9 hours) in patients with normal hepatic function. Approximately 35 hours in patients with impaired hepatic function (cholestasis).

***Dosage Forms of MBDZ:*** Tablet Oral

***Chemical IUPAC Name:*** methyl N-[6-(benzoyl)-1H-benzimidazol-2-yl]carbamate

***Chemical Formula:*** C<sub>16</sub>H<sub>13</sub>N<sub>3</sub>O<sub>3</sub>

***Mebendazole on Wikipedia:*** <http://en.wikipedia.org/wiki/Mebendazole>

***Organisms Affected:*** Helminthic Microorganisms