

Methimazole

Tapazole® and Felimazole® are other names for this medication.

How Is This Medication Useful?

Methimazole is used to treat feline hyperthyroidism. Sustained-release carbimazole is not presently available commercially and propylthiouracil has significantly higher incidences of adverse reactions when compared to methimazole and is rarely used today. Methimazole works by inhibiting the production of thyroid hormones.

Transdermal methimazole (in PLO gel; 2.5 mg twice daily) has been used with some therapeutic success in cats that do not tolerate oral dosing – the caregiver puts on gloves and applies the medication to the inside of the ear. Efficacy may require four or more weeks to detect.

Methimazole may be useful for the prevention of cisplatin-induced nephrotoxicity in dogs.

Are There Conditions or Times When Its Use Might Cause More Harm Than Good?

Methimazole should not be given to patients who are allergic to it, carbimazole, or the bonding agent polyethylene glycol. It should not be used in cats with autoimmune disease, primary liver disease, advanced kidney failure, blood or clotting disorders, or pregnant or lactating queens. It is suggested that kittens be bottle fed with kitten milk replacer after receiving colostrum from mothers on methimazole. Cats with liver and kidney disease could potentially receive the drug at low dosages with dose titration with liver function tests intensely monitored. Treatment of hyperthyroid cats with methimazole can unmask underlying kidney disease.

What Side Effects Can Be Seen With Its Use?

Most adverse effects associated with methimazole use in cats occur within the first 3 months of therapy with vomiting, poor appetite, and depression/lethargy occurring most frequently. GI effects occur in about 10% of treated cats may be related to the drug's bitter taste or direct gastric irritation and are usually self limiting. Cats that cannot tolerate GI adverse effects may tolerate transdermal methimazole.

Low blood counts may be noted in approximately 15% of cats treated within the first 8 weeks of therapy. These blood effects usually are also transient and generally do not require drug withdrawal. But blood dyscrasias (severely low blood counts) can occur in approximately 4% of cats and typically occur within the first 1-2 months of treatment. Cats who suffer severe blood suppression should not take methimazole.

Two to three percent of methimazole treated cats can develop itching of the face, and resulting deep scratches. This usually happens within the first 3 weeks of treatment.

Other serious but rare adverse effects include liver toxicity (1.5%), which generally requires withdrawal of the drug.

Up to 50% of cats receiving methimazole chronically (>6 months) will develop antibodies resulting in need for dosage reduction. Rarely, cats will develop a muscle weakness that requires either withdrawal or simultaneous therapy to suppress the immune system.

Your cat will need regular blood tests while taking methimazole.

How Should It Be Given?

Methimazole is usually given twice daily, though in some cases it may be given either once or three times daily.

The successful outcome of your animal's treatment with this medication depends upon your commitment and ability to administer it exactly as the veterinarian has prescribed. Please do not skip doses or stop giving the medication. If you have difficulty giving doses consult your veterinarian or pharmacist who can

offer administration techniques or change the dosage form to a type of medication that may be more acceptable to you and your animal.

If you miss a dose of this medication you should give it as soon as you remember it, but if it is within a few hours of the regularly scheduled dose, wait and give it at the regular time. Do not double a dose as this can be toxic to your pet.

Some other drugs can interact with this medication so tell your veterinarian about any drugs or foods that you currently give your animal. Do not give new foods or medications without first asking your veterinarian.

The following drug interactions have either been reported or are theoretical in humans or animals receiving methimazole.

- **Benzimidazole Antiparasitics:** Methimazole can increase blood levels of dewormers such as fenbendazole (Panacur®, Safeguard®).
- **Beta-Blockers:** A reduction in dose may be needed when the patient's thyroid hormone levels return to normal.
- **Bupropion:** Potential for increased risk for liver toxicity.
- **Digoxin:** Methimazole may decrease digoxin efficacy. A reduction in dose may be needed when the patient's thyroid hormone levels return to normal.
- **Phenobarbital:** Concurrent use of phenobarbital may reduce effectiveness.
- **Theophylline:** A reduction in dose may be needed when the patient's thyroid hormones return to normal.
- **Warfarin:** If methimazole and warfarin are used together, increased monitoring anticoagulant effect is warranted.

What Other Information Is Important About This Medication?

- This drug will decrease excessive thyroid hormones, does not cure the condition, and must be used lifelong.
- Pregnant women or women who may become pregnant, and nursing mothers should wear gloves when handling tablets, litter or bodily fluids of treated cats.

References:

Plumb Veterinary Drug Handbook