

Ivermectin

What is ivermectin?

Ivermectin is most commonly used as a heartworm preventive in dogs and cats. It also used **'off label'** or **'extra-label'** for treating a variety of internal and external parasites. For example, in dogs, ivermectin may be used in the treatment of mites (demodectic mange, scabies, and ear mites), intestinal parasites (hookworms, roundworms), and capillaria. In cats, ivermectin may be used to treat ear mites and cat scabies. Many drugs are commonly prescribed for off label use in veterinary medicine. In these instances, follow your veterinarian's directions and cautions very carefully.

How is ivermectin given?

Ivermectin may be combined with other deworming medications. Ivermectin is available as tablets, chewable tablets, a topical liquid (for ear mite treatments), and an injectable that your veterinarian will administer. It may be given with or without food. If your animal vomits or acts sick after getting the medication on an empty stomach, give with food or a small treat to see if this helps. If vomiting continues, contact your veterinarian. Your veterinarian will provide instructions for applying the topical ivermectin to your pet's ears. Give the medication as directed by your veterinarian. This medication should take effect within 1 to 2 hours; however, effects may not be visibly noticed and therefore laboratory tests may need to be done to evaluate this medication's effectiveness.

What if I miss giving my pet the medication (or my shipment is late)?

Give the missed dose as soon as you remember and then wait the amount of time between doses recommended by your veterinarian before giving the next dose. Do not give your dog two doses at once, or give extra doses. If you are using ivermectin as a heartworm preventive and more than 8 weeks have passed without giving this medication, contact your veterinarian for guidance.

Are there any potential side effects?

Ivermectin is generally well-tolerated but can have serious neurological side effects when given at high doses, such as for mite infestations. Some breeds, such as collies, are sensitive to only moderate doses of ivermectin and may have side effects at lower doses. Ivermectin may cause a shock-like reaction in some dogs. If this occurs, contact your veterinarian. If you notice any side effects such as stomach upset, vomiting, diarrhea, dilated pupils, unsteadiness when walking, or a dazed demeanor, contact your veterinarian. This short-acting medication should stop working within 24 hours, although effects can be longer in pets with liver or kidney disease.

Are there any risk factors for this medication?

Ivermectin should not be used in dogs younger than 6 weeks of age or in dogs without a current negative heartworm test. Some breeds of dogs (e.g., collies, sheepdogs, and collie- or sheepdog-cross breeds) are more sensitive to ivermectin than others. This is typically due to a specific genetic mutation (MDR1) that makes them less able to tolerate high doses of ivermectin. Doses used for heartworm prevention are safe to use in these breeds of dogs. Your veterinarian will advise you on the safety of ivermectin use in your dog.

Are there any drug interactions I should be aware of?

There are some medications that increase the effects of ivermectin in a pet's brain (e.g., ketoconazole, itraconazole, cyclosporine, erythromycin, amlodipine besylate, and nifedipine). When high doses of ivermectin are used to treat mite infestations, spinosad (a common flea preventive treatment) should not be administered. Spinosad is safe to use in conjunction with the low doses of ivermectin used in heartworm preventives. Be sure to tell your veterinarian about any medications (**including vitamins, supplements, or herbal therapies**) that your pet is taking.

Is there any monitoring that needs to be done with this medication?

For breeds of dogs with potential ivermectin sensitivity, screening may be done ahead of receiving the drug. DNA testing can determine whether a pet does or does not have the genetic mutation responsible for adverse reactions to ivermectin.

How do I store ivermectin?

Store ivermectin-based products at room temperature in a cool, dry place, away from heat and direct sunlight. Exposure to heat or moisture may reduce the drug's effectiveness.

What should I do in case of emergency?

If you suspect an overdose or an adverse reaction to the medication, call your veterinary office immediately. If they are not available, follow their directions in contacting an emergency facility.

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