

Cyclosporine (Dogs)

(sye-kloe-spor-een)

Category: Immunosuppressive Agent

Other Names for this Medication: Ciclosporin, Atopica®, Sandimmune®, Neoral®

Common Dosage Forms: Veterinary (Dogs): 10 mg, 25 mg, 50 mg, & 100 mg soft-gelatin oral capsules. **Human:** 25 mg, 50 mg, & 100 mg soft-gelatin oral capsules; 100 mg/mL oral liquid.

Note: There are different kinds of cyclosporine that have the same dosage forms. They are NOT interchangeable as they can be absorbed differently. Compounded products may also be available.

This information sheet does not contain all available information for this medication. It is to help answer commonly asked questions and help you give the medication safely and effectively to your animal. If you have other questions or need more information about this medication, contact your veterinarian or pharmacist.

Key Information

- ▶ Give on empty stomach (1 hour before or 2 hours after feeding). If your pet vomits or acts sick after receiving this drug on an empty stomach, try giving the next dose with food or a small treat. If vomiting continues, contact your veterinarian.
- ▶ May take up to 2 weeks to see if the drug is working. Cyclosporine blood level tests may be done.
- ▶ Vomiting, reduced appetite, and diarrhea are the most common side effects. These signs usually get better on their own, but if they are severe or persistent, contact your veterinarian.
- ▶ Contact your veterinarian immediately if you notice signs indicating an infection (eg, fever, low energy, poor appetite).
- ▶ Pregnant women should handle this drug very carefully.

How is this medication useful?

Cyclosporine is used to prevent rejection of transplanted organs, treat skin and blood conditions that are caused by over active immune systems, and is also useful in allowing healing of sores around the anus (ie, perianal fistulas) that do not respond to other treatments.

The FDA (U.S. Food & Drug Administration) has approved a cyclosporine product (Atopica®) for use in dogs to treat atopic dermatitis. The FDA (U.S. Food & Drug Administration) has also approved several cyclosporine products for use in humans, but these are not officially approved for use in animals.

The FDA allows veterinarians to prescribe products containing this drug in different species or for other conditions in certain situations. You and your veterinarian can discuss why this drug is the most appropriate choice.

What should I tell my veterinarian to see if this medication can be safely given?

Many things might affect how well this drug will work in your dog. Be sure to discuss the following with your veterinarian so together you can make the best treatment decisions.

- ▶ Other drugs can interact with cyclosporine, so be sure to tell your veterinarian and pharmacist what medications (including vitamins, supplements, or herbal therapies) you give your dog, including the amount and time you give each.
- ▶ Tell your veterinarian about any conditions or diseases your pet may have now or has had in the past.
- ▶ If your dog has been treated for the same disease or condition in the past, tell your veterinarian about the treatment and how well it did

or didn't work.

- ▶ If your animal is pregnant or nursing, talk to your veterinarian about the risks of using this drug.
- ▶ Tell your veterinarian and pharmacist about any medication side effects (including allergic reactions, lack of appetite, diarrhea, itching, hair loss) your pet has developed in the past.

When should this medication not be used or be used very carefully?

No drug is 100% safe in all patients, but your veterinarian will discuss with you any specific concerns about using this drug in your animal.

This drug SHOULD NOT be used in dogs:

- ▶ That are allergic to it.
- ▶ With suspected cancer or a history of cancer.

This drug should be used **WITH CAUTION** in dogs:

- ▶ That have an infection.
- ▶ With liver or kidney disease.
- ▶ That are pregnant or nursing. Cyclosporine has caused birth defects in rodents. It is not known if it is safe for nursing offspring if the mother is getting the drug.
- ▶ With a seizure disorder (eg, epilepsy).
- ▶ That are under 4 lb (2 kg) body weight or younger than 6 months old as safety and effectiveness have not been established (Atopica® label).

If your pet has any of these conditions or signs, talk to your veterinarian about the potential risks versus benefits.

What are the side effects of this medication?

Side effects are usually mild and often get better with time.

Common, but not serious side effects include:

- ▶ Vomiting, reduced appetite, diarrhea. These effects are seen in approximately 1 in 3 dogs usually in the first 1-2 days after starting the drug and often improve over time. Your veterinarian may prescribe anti-vomiting medications or temporarily stop the drug if these occur.
- ▶ Overgrowth of gums (gingival hyperplasia) and skin growths (both are rare).
- ▶ Lethargy (tiredness, lack of energy).

You don't have to be overly concerned if you see any of these unless they are severe, worsen, or continue to be a problem. Contact your veterinarian if this happens.

Side effects that may be serious or indicate a serious problem:

- ▶ Infection. Cyclosporine can weaken your dog's immune system. Watch for signs of infection such as fever (103°F-104°F), tiredness or lack of energy, sneezing, coughing, poor appetite, or runny eyes.

If you see any of these, contact your veterinarian immediately.

If my pet gets too much of this medication (an overdose), what should I do?

Overdoses of cyclosporine can cause serious effects. If you witness or suspect an overdose, contact your veterinarian or an animal poison control center for further advice. Animal poison control centers that are open 24 hours a day include: **ASPCA Animal Poison Control Center** (888-426-4435) and **Pet Poison HELPLINE** (855-764-7661); a consultation fee is charged for these services.

How should this medication be given?

For this medication to work, give it exactly as your veterinarian has prescribed. It's a good idea to always check the prescription label to be sure you are giving the drug correctly.

- ▶ The drug should be given at least 1 hour before or 2 hours after a meal, but if your animal vomits or acts sick after getting it on an empty stomach, give with a small amount of food or small treat to see if this helps. If vomiting continues, contact your veterinarian.
- ▶ Liquid forms of this medication must be measured carefully. Your veterinarian or pharmacist can help by providing special measuring spoons or syringes.
- ▶ Most animals do not like the taste of cyclosporine. If you have difficulty getting your dog to take the medicine, contact your veterinarian or pharmacist for tips to help with dosing and reducing the stress of medication time for both you and your dog.
- ▶ Patients are usually on this medication for an extended period, often for the rest of their lives. Give this medication according to the label's instructions and obtain refills as needed. Before stopping this medication, talk to your veterinarian, as there may be important reasons to continue its use.

What should I do if I miss giving a dose of this medication?

If you miss a dose, give it when you remember, but if it is close to the time for the next dose, skip the dose you missed and give it at the next scheduled time. After that, return to the regular dosing schedule. Do not double-up or give extra doses. Don't give it more than once per day if you regularly give the drug once a day.

How should I store this medication?

- ▶ When using the approved product for dogs (Atopica®), store in the original container at room temperature (59°F-77°F).
- ▶ If your veterinarian or pharmacist has made (compounded) a special formulation for your animal, follow the storage recommendations and expiration date for the product.

- ▶ Keep away from children and other animals.

Can handling this medication be hazardous to me, my family, or other pets?

Pregnant women and people who are allergic to this drug should be very careful not to accidentally take it. Because this drug has a higher risk for causing birth defects, pregnant women should wear disposable gloves when giving doses or handling the drug and avoid inhaling any dust from split or crushed tablets. Skin or eyes exposed to powder or liquids containing the drug should immediately be washed or rinsed off thoroughly.

How should I dispose of this medication if I don't use it all?

- ▶ Do not flush this medication down the toilet or wash it down the sink. If a community drug "take-back" program is available, use this option. If there is no take-back program, mix the drug with coffee grounds or cat litter (to make it undesirable to children and animals and unrecognizable to people who might go through your trash), place the mixture in a sealable plastic bag to keep it from leaking out, and throw the bag out with the regular trash.
- ▶ Do not save left over medication for future use or give it to others to use.

What other information is important for this medication?

- ▶ Because cyclosporine therapy can be very expensive, veterinarians may prescribe another drug (eg, ketoconazole) that can increase the amount of cyclosporine in the blood and allow lower dosages to be given. This treatment plan must be done under the close supervision of your veterinarian.
- ▶ There are different forms of cyclosporine and doses for them may not be the same. Check with your veterinarian or pharmacist before changing brands or dosage forms to be sure that the dosage does not change.
- ▶ Cyclosporine may keep vaccines from working properly. Your dog should receive killed virus vaccines and not modified live virus vaccines while on cyclosporine.
- ▶ Use of this drug may not be allowed in certain animal competitions. Check rules and regulations before entering your animal in a competition while this medication is being administered.

If you have any other questions or concerns about this medication, contact your veterinarian or pharmacist.

Cyclosporine (Cats)

(sye-kloe-spor-een)

Category: Immunosuppressive

Other Names for this Medication: Ciclosporin, Atopica® for Cats, Sandimmune®, Neoral®

Common Dosage Forms: Veterinary (Cats): 100 mg/mL oral liquid. **Human:** 25 mg, 50 mg, 100 mg soft-gelatin oral capsules; 100 mg/mL oral liquid. Note: There are different kinds of cyclosporine that have the same dosage forms. They are NOT interchangeable as they can be absorbed differently. Compounded products may also be available.

This information sheet does not contain all available information for this medication. It is to help answer commonly asked questions and help you give the medication safely and effectively to your animal. If you have other questions or need more information about this medication, contact your veterinarian or pharmacist.

Key Information

- ▶ Can be given either by placing the dose directly on a small amount of food or placed directly into the cat's mouth just after feeding. Try to give the same time each day.
- ▶ May take 4-6 weeks to see if the drug is working. Cyclosporine blood level tests may be done.
- ▶ Vomiting is the most common side effect. This usually gets better on its own, but if it is severe or continues, contact your veterinarian.
- ▶ Contact your veterinarian immediately if you notice signs indicating an infection (eg, fever, low energy, poor appetite).
- ▶ Pregnant women should handle this drug carefully.

How is this medication useful?

Cyclosporine is used to prevent rejection of transplanted organs and treat skin and blood conditions that are caused by over active immune systems.

The FDA (U.S. Food & Drug Administration) has approved a cyclosporine product (Atopica® for Cats) for use in cats to control feline allergic dermatitis as manifested by scratches (including on the face and neck), blotches, sores, inflammation, and self-induced alopecia (licking until fur is gone) in cats that are at least 6 months of age and weigh at least 3 lb (1.4 kg). The FDA does allow veterinarians to prescribe and use products containing this drug in different species or for other conditions in certain situations.

The FDA (U.S. Food & Drug Administration) has also approved several cyclosporine products for use in humans but these are not officially approved for use in animals. You and your veterinarian can discuss why this drug is the most appropriate choice.

What should I tell my veterinarian to see if this medication can be safely given?

Many things might affect how well this drug will work in your animal. Be sure to discuss the following with your veterinarian so together you can make the best treatment decisions.

- ▶ Other drugs can interact with cyclosporine, so be sure to tell your veterinarian and pharmacist what medications (including vitamins, supplements, or herbal therapies) you give your cat, including the amount and time you give each.
- ▶ Tell your veterinarian about any conditions or diseases your pet may have now or has had in the past.
- ▶ If your animal has been treated for the same disease or condition in the past, tell your veterinarian about the treatment and how well it worked or didn't work.
- ▶ If your animal is pregnant or nursing, talk to your veterinarian about

the risks of using this drug.

- ▶ Tell your veterinarian and pharmacist about any medication side effects (including allergic reactions, lack of appetite, diarrhea, itching, hair loss) your pet has developed in the past.

When should this medication not be used or be used very carefully?

No drug is 100% safe in all patients, but your veterinarian will discuss with you any specific concerns about using this drug in your animal.

This drug SHOULD NOT be used in cats:

- ▶ That are allergic to it.
- ▶ With suspected cancer or a history of cancer.
- ▶ Infected with feline leukemia virus (FeLV) or feline immunodeficiency virus (FIV).

This drug should be used **WITH CAUTION** in cats:

- ▶ That have an infection.
- ▶ With liver or kidney disease.
- ▶ That are pregnant or nursing. Cyclosporine has caused birth defects in rodents. It is not known if it is safe for nursing offspring if the mother is getting the drug. The label for the product for cats (Atopica® for Cats) states that it is not for use in breeding cats, pregnant or lactating queens.
- ▶ With a seizure disorder (eg, epilepsy).
- ▶ That are under 6 months of age or weigh under 3 lb (1.4 kg) as safety and effectiveness have not yet been established (Atopica® for Cats label).
- ▶ Receiving other immunosuppressive drugs.

If your pet has any of these conditions or signs, talk to your veterinarian about the potential risks versus benefits.

What are the side effects of this medication?

Side effects are usually mild and get better with time.

Common, but not serious side effects include:

- ▶ Vomiting. This is the most common side effect and usually stops with continued use.
- ▶ Weight loss, diarrhea, decreased appetite, lack of energy, and drooling.
- ▶ Behavior changes.
- ▶ Overgrowth of gums (gingival hyperplasia); rare.
- ▶ More hair growth.

You don't have to be overly concerned if you see any of these unless they are severe, worsen, or continue to be a problem. Contact your veterinarian if this happens.

Side effects that may be serious or indicate a serious problem:

- ▶ Infection. Cyclosporine can reduce your cat's immune system; watch for signs of infection such as fever, tiredness or lack of

energy, sneezing, coughing, poor appetite, or runny eyes.

If you see any of these or other side effects that concern you, contact your veterinarian immediately.

If my pet gets too much of this medication (an overdose), what should I do?

Overdoses of cyclosporine can cause serious effects. If you witness or suspect an overdose, contact your veterinarian or an animal poison control center for further advice. Animal poison control centers that are open 24 hours a day include: **ASPCA Animal Poison Control Center** (888-426-4435) and **Pet Poison HELPLINE** (855-764-7661); a consultation fee is charged for these services.

How should this medication be given?

For this medication to work, give it exactly as your veterinarian has prescribed. It's a good idea to always check the prescription label to be sure you are giving the drug correctly.

- ▶ Liquid forms of this medication must be measured carefully. Your veterinarian or pharmacist can help by providing special measuring spoons or syringes.
- ▶ Liquid cyclosporine can be given either by placing the dose directly on a small amount of food or by putting the entire dose directly into the cat's mouth just after feeding. If mixed with food, mix the dosage with a small amount of food and give it before you offer your cat a meal to make sure it eats the entire dose.
- ▶ Try to give the dose at about the same time with regard to meals and time of day.
- ▶ Do not change the way you give this drug to your cat without first speaking with your veterinarian.
- ▶ If you are getting the approved product for cats (Atopica® for Cats) be sure you have received: *The Instructions For Assembling the Dispensing System and Preparing a Dose of Atopica For Cats*. This will help you safely measure and administer the right amount of medication to your cat. Do not rinse or clean the oral dosing syringe between uses. Store the oral dosing syringe in the plastic tube between each use.
- ▶ Most animals do not like the taste of cyclosporine and if you have difficulty getting your cat to take the medicine, contact your veterinarian or pharmacist for tips to help with dosing and reducing the stress of medication time for both you and your cat.
- ▶ Patients are usually on this medication for an extended period, often for the rest of their lives. Give this medication according to the label's instructions and obtain refills as needed. Before stopping this medication, talk to your veterinarian, as there may be important reasons to continue its use.

What should I do if I miss giving a dose of this medication?

If you miss a dose, give it when you remember, but if it is close to the time for the next dose, skip the dose you missed and give it at the next scheduled time. After that, return to the regular dosing schedule. Do not double-up or give extra doses. Don't give it more than once per day if you regularly give the drug once a day.

How should I store this medication?

- ▶ When using the approved product for cats (Atopica® for Cats), store in the original container at room temperature (59°F-77°F). Once opened, contents should be used within 2 months for the 5 mL container and 11 weeks for the 17 mL container.
- ▶ If your veterinarian or pharmacist has made (compounded) a special formulation for your animal, follow the storage recommendations and expiration date for the product.
- ▶ Keep away from children and other animals.

Can handling this medication be hazardous to me, my family, or other pets?

- ▶ Do not eat, drink, smoke, or use smokeless tobacco while handling the drug.
- ▶ Pregnant women and people who are allergic to this drug should be very careful not to accidentally take it. Because this drug has a higher risk for causing birth defects, pregnant women should wear disposable gloves when giving doses or handling the drug and avoid inhaling any dust from split or crushed tablets.
- ▶ Skin or eyes exposed to powder or liquids containing the drug should immediately be washed or rinsed off thoroughly.

How should I dispose of this medication if I don't use it all?

- ▶ Do not flush this medication down the toilet or wash it down the sink. If a community drug "take-back" program is available, use this option. If there is no take-back program, mix the drug with coffee grounds or cat litter (to make it undesirable to children and animals and unrecognizable to people who might go through your trash), place the mixture in a sealable plastic bag to keep it from leaking out, and throw the bag out with the regular trash.
- ▶ Do not save left over medication for future use or give it to others to use.

What other information is important for this medication?

- ▶ Cats receiving cyclosporine may be at risk for toxoplasmosis if they have not been exposed before and then eat raw meat. To avoid infection, the manufacturer for Atopica® for Cats recommends that these cats be kept indoors, not be fed raw meat, and not be allowed to hunt.
- ▶ There are different forms of cyclosporine and doses for them may not be the same. Check with your veterinarian or pharmacist before changing brands or forms to be sure that the dosage does not change.
- ▶ Cyclosporine levels must be carefully monitored in your cat.
- ▶ Use of this drug may not be allowed in certain animal competitions. Check rules and regulations before entering your animal in a competition while this medication is being administered.

If you have any other questions or concerns about this medication, contact your veterinarian or pharmacist.