

# Cyclosporine

**Names** The generic drug name is cyclosporine (SYE-kloe-spor-een). Brand names include Neoral<sup>®</sup>, Gengraf<sup>®</sup>, and Sandimmune<sup>®</sup>. There may be other names of this medication.)

**How is it Administered?** Cyclosporine comes in an original form and in a modified form. The modified version is better absorbed by the body. Both forms come as a capsule and a liquid to take by mouth. Cyclosporine is usually taken once a day. The modified form is usually taken twice a day. Take cyclosporine or cyclosporine (modified) exactly as directed. The two forms are absorbed differently and you cannot substitute one form for the other. You may notice an unusual smell when you open a blister card of cyclosporine capsules. This is normal and does not mean that the medication is damaged or unsafe to use. There is an injectable form of cyclosporin that is used with other medications to help prevent rejection after an organ transplant if the patient can't take the oral medications.

Cyclosporin also comes as eye drops (Restasis<sup>®</sup>) to treat chronic dry eye.

**What is it Used For and How Does it Work?**

This medication is used to treat rheumatoid arthritis and psoriasis, and to prevent transplant rejection.

Cyclosporine is an immunosuppressive agent, which means it suppresses your body's immune system. This is helpful if you have had a transplant and are trying to prevent rejection of the new organ. The problem is that it also decreases your body's ability to fight off any type of infectious agent, which makes you more vulnerable to getting sick.

**What Should I Tell My Doctor Before I Begin?**

Tell your doctor if you:

- have had an allergic reaction to cyclosporine or Cremophor EL.
- are taking any herbal products, especially St. John's wort
- are being treated with phototherapy; have high blood pressure; or if you have or have ever had low levels of cholesterol or magnesium in your blood
- are pregnant or breastfeeding

**This drug can interact with other medications. Tell your doctor and pharmacist about all prescription or over-the-counter medications, vitamins, herbal, or diet supplements that you take.**

**Please let us know ahead of time if you have had any allergic reactions or side effects to any medicines you have received in the past.**

What Are Some Possible Side Effects?

- Uncontrollable shaking (tremor)
- Kidney damage
- High blood pressure
- infection
- Headache (more common), migraine (less common)
- Nausea/vomiting, upset stomach, heartburn, gas
- Diarrhea
- Rash, excessive hair growth, acne, flushing, itching, sensitivity to sun, women with male pattern hair growth (increased hair on the face, arms, or back)
- Mouth sores, swollen gums
- Abnormal lab results: High triglycerides, high potassium, low magnesium, low sodium
- Numbness and tingling
- Leg cramps
- Flu-like syndrome
- Pancreatitis
- Liver damage
- Low white blood count and/or platelet count

Serious side effects of cyclosporine include problems speaking or walking; decreased vision; fever, sweating, and chills

How Can I Manage These Side Effects?

- Ask your doctor about medication to help prevent or lessen headache, nausea, vomiting, or diarrhea.
- If you develop a rash, do not put anything on it unless it is approved by your doctor.
- Cover up when you are out in the sun. Wear wide-brimmed hats, long-sleeved shirts, and pants. Keep your neck, chest, and back covered. Use sunscreen with SPF 15 or higher when you are outdoors, even for a short time.
- Mouth care: Mouth with a mixture of ½ tsp of baking soda in 8 oz of water after every meal and at bedtime. Brush your teeth and gums often with soft toothbrush. Avoid mouthwashes that contain alcohol. Avoid alcohol and smoking.
- Your doctor/nurse will give you more information when you begin.

## When Should I Call the Doctor?

### **Call 911 or go to the nearest hospital emergency department if you have life-threatening symptoms such as:**

- signs of severe allergic reaction: Swelling or tingling in your face, tongue, mouth, or throat; chest tightness; wheezing; trouble breathing or swallowing; dizziness, shortness of breath; heart palpitations; or hives.
- signs of heart attack: Chest pain, pain in jaw, neck, back, arm; shortness of breath, sweating; nausea
- signs of stroke: Sudden numbness or weakness – especially if only on one side of the body; sudden trouble walking, seeing, speaking, or maintaining balance or coordination)

Please let us know if you go to the emergency room or are admitted to the hospital.

### **Call your doctor as soon as possible if you experience:**

- any sign of infection: **Fever of 100.°4F (38°C) or higher**, chills, cough, sore throat, pain or burning upon urination; redness or tenderness along a vein, at an IV site, or at any other wound or skin irritation
- unusual bruising or bleeding: bleeding lasts more than 10-15 minutes or that causes dizziness; black or bloody stools; vomit that is bloody or that looks like coffee grounds; blood in your urine or phlegm /mucus, unusually heavy menstrual bleeding, spontaneous bleeding from your gums or nose, or superficial bleeding into the skin that appears as a rash of pinpoint-sized reddish-purple spots (petechiae)
- yellowing of skin or eyes
- difficulty controlling body movements

### **Call your doctor as soon as possible if you have:**

- painful mouth or throat or nausea that is not relieved by prescribed medication or that it difficult to eat or drink
- headache unrelieved by prescribed medication
- persistent loss of appetite or weight loss

## What Else Should I Know About Cyclosporine?

- To help avoid infections, stay away from crowds or people with colds, flu, or other infections. If you are exposed to chickenpox or measles, tell your doctor right away. Talk to your doctor before you have any vaccinations. Wash your hands often. Other persons living in your house should not take oral polio vaccine since there is a chance they could pass the polio virus on to you. Also, avoid persons who have recently taken oral polio vaccine. Do not get close to them, and do not stay in the same room with them for very long. If you cannot take these precautions, you should consider wearing a protective face mask that covers the nose and mouth.
- Take this medicine only as directed by your doctor. Do not take more or less of it and do not take it more often than your doctor ordered.
- Try to get into the habit of taking it at the same time each day; the medication will work better by keeping a constant blood level.
- Grapefruit and grapefruit juice may increase the effects of cyclosporine by increasing the amount of this medicine in the body. **You should not eat grapefruit or drink grapefruit juice while you are taking this medicine.**
- Absorption of this medicine may be changed if you change your diet. Talk to your doctor before you make any dramatic changes in your diet or eating schedule.
- To make the medicine taste better, mix it in a glass container with milk, chocolate milk, or orange juice (preferably at room temperature). Stir it well, and then drink it immediately. After drinking all the liquid containing the medicine, rinse the glass with a little more liquid and drink that also, to make sure you get all the medicine.
- Do not stop taking this medicine without first checking with your doctor.
- You may have to take medicine for the rest of your life to prevent your body from rejecting the transplant.
- If you miss a dose of cyclosporine and remember it within 12 hours, take the missed dose. However, if it is almost time for the next dose, skip the missed dose; go back to your regular schedule.
- Store this medicine away from heat, moisture, and direct light. Do not store in the bathroom, near the kitchen sink, or in other damp places.
- See your dentist regularly to have your teeth cleaned. Check with your medical doctor or dentist if you have any questions about how to take care of your teeth and gums, or if you notice any tenderness, swelling, or bleeding of your gums.
- If you would like more information about cyclosporine, talk to your doctor or pharmacist.