Cyclosporine

What is it?
Cyclosporine is an immunosuppressive drug that was first used to help prevent rejection of organs in transplant patients. In 1997, the U.S. Food and Drug Administration (FDA) approved Neoral (one brand name for cyclosporine) for psoriasis. It is used in adults with severe psoriasis and otherwise normal immune systems.

How does it work?
Cyclosporine suppresses the immune system and stops the actions of certain immune cells. This slows the growth of skin cells.

Who should not take it?
- Women who are breastfeeding
- Individuals with abnormal kidney function
- Individuals with uncontrollable high blood pressure
- Individuals with malignancies or a history of malignancies (other than basal or squamous cell skin cancers)
- Individuals undergoing radiation treatment
- Individuals with severe gout
- Individuals whose immune systems are compromised (for example, anyone with lymphoma or HIV infection, or individuals receiving other immune-suppressing drugs).

How is it used?
Cyclosporine is taken daily by mouth in a capsule or a liquid form. The liquid form must be diluted for use. It is preferably mixed with room-temperature orange or apple juice (not grapefruit juice). Individuals should take cyclosporine on a consistent schedule.

Can it be used with other treatments?
Cyclosporine can be used with topical vitamin D drugs Dovonex and Vectical (calcipotriene and calcitriol). This combination is safe and effective for severe, chronic plaque psoriasis. When using the two together leads to improvement, a lower dosage of cyclosporine can be given. This lessens the risk of side effects.

Your doctor may recommend alternating cyclosporine with other forms of treatment to manage psoriasis better. This is called rotational therapy.

Cyclosporine treatment should not normally be combined with PUVA (the light-sensitizing drug psoralen plus ultraviolet light A), UVB (ultraviolet light B) therapy, methotrexate or other immunosuppressive agents. Protect your skin while in the sun and avoid too much exposure.

Side Effects
Possible side effects from taking cyclosporine include:
- Decreased kidney function
- Headache
- High blood pressure
- High cholesterol
- Excessive hair growth
- Tingling or burning sensations in arms or legs
- Skin sensitivity
- Increased growth of gum tissues
- Flu-like symptoms
- Upset stomach
- Tiredness
- Muscle, bone or joint pain

Generally, these side effects go away with a lower dose or if the drug is stopped.
Effectiveness

Cyclosporine can provide rapid relief from symptoms. Individuals may see some improvement in symptoms after two weeks of treatment, particularly with stronger doses. However, it may take from three to four months to attain more control.

Extended use of cyclosporine by transplant patients is well-established. However, long-term use as a treatment for psoriasis is more limited. The FDA recommends the drug not be used for longer than one year. However, there are no specific guidelines for how long individuals should stay off cyclosporine before resuming treatment with the drug. Some doctors may prescribe the drug for more than one year.

Risks

Individuals previously treated with PUVA, methotrexate or other immunosuppressive agents, UVB, coal tar or radiation therapy are at an increased risk of developing skin malignancies when taking cyclosporine. Renal dysfunction, including kidney damage, is a potential risk of cyclosporine. This increases with length of time and amount of cyclosporine taken. The risk is further increased in individuals with kidney damage already present. Your doctor will monitor your kidney function with blood tests before and during treatment with cyclosporine. Patients can also develop hypertension on this medication so blood pressure must be closely monitored.

Vaccinations may be less effective if taken while on cyclosporine. Talk to your doctor if you plan to get any kind of vaccination. Cyclosporine should only be used during pregnancy if the potential benefits outweigh the potential risks. In general, women are advised not to become pregnant while taking cyclosporine. Your doctor may recommend that if you do become pregnant while taking cyclosporine, you should stop the treatment.

Your doctor should always be aware of any other medications, treatments or dietary supplements you are using. Many medications interact with cyclosporine. Talk with your doctor about the amount of potassium-rich foods you should consume. Avoid drinking grapefruit juice as it increases the level of cyclosporine in your blood. St. John’s Wort can reduce the blood levels of cyclosporine in transplant patients. Discuss with your doctor first before taking this supplement.

For detailed information on side effects and safety, talk with your doctor.

Financial assistance information

**Gengraf Capsules (cyclosporine)**
Abbvie Patient Assistance Foundation
800-222-6885

**Neoral Capsules (cyclosporine), Sandimmune Gelatin Capsules (cyclosporine)**
Novartis Patient Assistance Program for Specialty Medicines
800-277-2254

**Cyclosporine Capsules, Cyclosporine Oral Solution**
TEVA Assistance Program
877-254-1039