



## SEPTRA/BACTRIM

### Summary

Septra, or Bactrim, is a popular brand name for a pill that contains two drugs, trimethoprim and sulfamethoxazole. People with HIV/AIDS (PHAs) use Septra to prevent or treat *Pneumocystis carinii* pneumonia (PCP).

### What is Septra?

The combination of two antibiotic drugs, trimethoprim and sulfamethoxazole, is sold under many brand names, but is most commonly known as Septra or Bactrim. Septra is used to prevent and treat the life-threatening complication commonly called *Pneumocystis carinii* pneumonia (PCP). It can also provide protection against some bacterial infections.

### Prevention

Any treatment taken to prevent an illness is called **prophylaxis**. Septra is the most effective prophylaxis for PCP. Usually, one double-strength tablet containing 800 mg trimethoprim + 160 mg sulfamethoxazole is taken daily. Some people take one single-strength tablet every day while others take one double-strength tablet three times a week. Septra is also used to prevent toxoplasmosis (toxo) and bacterial infections.

### Treatment

As a treatment for mild to moderate PCP, two double-strength Septra tablets are taken four times a day (for a total of 8 tablets daily), for about 21 days. For severe PCP, or when other conditions make it impossible to take oral

medication, intravenous Septra can be given in the hospital.

### Side effects

The most common side effects of Septra are as follows:

- nausea
- vomiting
- loss of appetite
- rash
- itchy skin

Women seem to be at a slightly higher risk than men of developing skin reactions to Septra. These reactions are also more common in white people than in people of colour.

Septra can also cause sensitivity to bright light or sunlight. Wearing sunglasses and using sunscreen may help reduce sensitivity to sunlight.

Less common side effects include headache, abdominal pain, diarrhea, inflammation of the liver (hepatitis) or pancreas (pancreatitis), kidney toxicity and muscle or joint pain.

Septra can temporarily weaken the bone marrow in some PHAs. Anecdotal reports suggest that in some cases this may mean that levels of red and white blood cells as well as CD4+ cells may not



rise as much as expected if Septra is being used. Over the long-term, this effect may wear off as the immune system recovers. If you are using highly active antiretroviral therapy (HAART), your CD4+ cell count may rise and remain well above the 200 cell mark. If this happens, your doctor, taking into account your medical history, may decide it is safe for you to stop using Septra.

## Warnings

**1. People who are allergic to sulfa drugs should not use Septra/Bactrim.**

### 2. Pregnancy

If you are pregnant or may be pregnant and are considering the use of Septra, talk to your doctor or nurse. Pregnant rats given higher-than-normal doses of Septra have had fetuses with defects. In one British study, researchers monitored the health of 195 pregnant HIV positive women, some of whom used anti-HIV drugs and others who used these drugs in addition to antibiotics and antiseizure medication. The women who used anti-HIV drugs in addition to a number of other prescription medications (including Septra) were seven times more likely to have babies with birth defects compared to mothers who used anti-HIV drugs alone. In HIV negative pregnant women, the use of antibiotics such as Septra, pyrimethamine or dapsone increases the risk of birth defects at least three-fold.

The above drugs work by interfering with the ability of germs to use the B-vitamin folic acid (folate). Unfortunately, they also affect the ability of the fetus to use folic acid, leading to birth defects. Thus, it should come as no surprise that pregnant women who use these antibiotics as well as anti-HIV therapy during the first trimester are more likely to have children with birth defects.

## What to do?

The British research team suggests that until further safety data are available the need for taking preventative doses (prophylaxis) of drugs that interfere with folic acid “in women of

childbearing age be reviewed and the benefits of folic acid supplementation emphasized during [pre-pregnancy] counseling.”

In Canada, the routine use of Septra in pregnant women is discouraged. If pregnant women must use these drugs, a supplement of folic acid, between 5 and 10 mg/day, is suggested. Researchers are not certain this will prevent the development of birth defects.

## Drug interactions

Septra’s negative effect on the bone marrow may be temporarily made worse by using drugs that also affect the bone marrow including the following:

- AZT (Retrovir, zidovudine; also in the combination drugs Combivir and Trizivir)
- Valcyte (valganciclovir)

## Desensitization

Many HIV positive people are hypersensitive to one of the drugs in Septra. They may react to the sulfamethoxazole with itching, skin rash, aching joints, sore throat, difficulty swallowing and fever. Because it is so effective — not just in preventing PCP but also toxoplasmosis, bacterial pneumonia and other infections — Septra is the drug of choice for many doctors. Therefore, “desensitization” is an option that some people choose so that they can benefit from the drug. This is done by taking very small amounts of the drug and gradually increasing the dosage until tolerance improves.

Although most reactions to Septra are not life-threatening, there is always the rare possibility of an anaphylactic reaction (going into shock). Because of this, desensitization should be done under the supervision of a doctor experienced with this procedure.

## Credits

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## Disclaimer

**Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV-related illness and the treatments in question.**

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