



Sulfasalazine (Azulfidine)

Sulfasalazine (*Azulfidine*), used to treat pain and swelling in arthritis, belongs to a class of drugs called sulfa drugs. It is a combination of salicylate (the main ingredient in aspirin) and a sulfa antibiotic. Sulfasalazine is also known as a disease modifying antirheumatic drug (DMARD) because it not only decreases the pain and swelling of arthritis, but also may prevent damage to joints. In addition, it may reduce the risk of long term loss of function.

Uses

Sulfasalazine was first used over 70 years ago to treat [rheumatoid arthritis](#) which, at one time, was thought to be caused by a bacterial infection. Sulfasalazine was designed as a combination of an aspirin-like anti-inflammatory medicine with a sulfa containing antibiotic. While a bacterial infectious cause for rheumatoid arthritis is longer believed to be true, sulfasalazine continues to be useful for treating for mild to moderate symptoms, or may be given with other drugs for more severe symptoms of rheumatoid arthritis. It is also used for other conditions, including juvenile idiopathic arthritis (also called [juvenile rheumatoid arthritis](#)), [ankylosing spondylitis](#), [psoriatic arthritis](#), and ulcerative colitis.

How it works

Sulfasalazine treats swelling, pain, and stiffness in arthritis. However, it is not entirely clear how this medication works for rheumatoid arthritis.

Dosing

Sulfasalazine comes in a 500 milligram tablet, and should be taken with food and a full glass of water to prevent stomach upset. The medication is often started at low doses to treat rheumatoid arthritis, typically one to two

tablets a day, to prevent side effects. After the first week, the dose may be increased slowly to the usual 2 tablets (1 gram) taken twice a day. This dose can be increased to up to 6 pills (3 grams) a day in some situations. An Enteric-coated (or stomach-coated) preparation is available which may lessen some side effects, particularly stomach upset.

The dose for other conditions, such as ulcerative colitis, may be different.

Time to effect

It usually takes between 1 and 3 months to notice any improvement in rheumatoid arthritis symptoms after starting sulfasalazine.

Side effects

In general, most patients can take sulfasalazine with few side effects. The most common side effects are nausea and abdominal discomfort, which often occur in up to a third of patients early in the course of treatment. Serious side effects such as stomach ulcers are actually less common with sulfasalazine than with [non-steroidal anti-inflammatory drugs](#) (NSAIDs) such as ibuprofen (*Advil*) or naproxen (*Aleve*).

Abdominal side effects that do occur with sulfasalazine usually improve with time, and are often avoided by slowly increasing from a low starting dose. Sulfasalazine also is available in an enteric-coated (stomach-coated) pill that helps prevent nausea and abdominal discomfort.

Only about 10 percent of patients on this medicine will get a skin rash or headache. Even less commonly, patients taking this medication for rheumatoid arthritis will get mouth sores, itching or abnormalities of liver function.

Burning or skin damage from sunlight can also be a problem. Those on sulfasalazine should use sunscreen (SPF 15 or higher) when outdoors and avoid prolonged exposure to sunlight. Some people will develop orange colored urine, and even orange skin. This should not cause alarm. It is usually harmless and goes away after medication is stopped.

In some cases, sulfasalazine may reduce the number of disease-fighting white blood cells in the body, leading to a higher risk for infections. This often does not cause symptoms, but can be detected by regular blood tests performed by your doctor. Sulfasalazine also increases the risk of reduced blood counts in people born without an enzyme called *Glucose-6-phosphate dehydrogenase*.

Points to remember

Safety: Sulfasalazine treatment is generally considered to be safe during pregnancy, but usage should be discussed with your physician if you are planning to become pregnant. Additionally, sulfasalazine may reduce levels of folate (a vitamin) in the body, and your doctor may recommend taking a folic acid supplement while on the medication, which is especially important if pregnancy is being considered. This medication should not be taken by mothers who are breastfeeding, as it increases the risk for a type of jaundice in the newborn

(kernicterus) which can cause brain problems in infants younger than two years old. In men, sulfasalazine may lower sperm count, although this should improve after stopping the medication.

Potential Severe Reaction: Most rashes are not serious, but occasionally patients taking sulfasalazine develop a more severe rash and should be evaluated by their doctor to determine if the medication should be discontinued.

Tell your doctor if you have ever had any unusual or allergic reaction to any other sulfa medicines as well as medicines that are chemically related to sulfa drugs. Your doctor will then determine whether you should take sulfasalazine. Sulfa drugs and those related to them include:

- Some antibiotics (often used to treat urinary or upper respiratory infections): trimethoprim-sulfamethoxazole (Bactrim, Septra) sulfadiazine, sulfisoxazole (Gantrisin), and dapsone.
- Fluid and blood pressure pills such as furosemide (Lasix) and thiazide diuretics (hydrochlorothiazide or HCTZ).
- Some diabetes medications.
- Some glaucoma medications such as acetazolamide (Diamox), dichlorphenamide (Daranide), and methazolamide (Neptazane).
- Salicylates such as aspirin and the Cox-2 inhibitor celecoxib (Celebrex).

Drug Interactions: Sulfasalazine may interfere with warfarin (*Coumadin*), [cyclosporine](#), or digoxin, so dose adjustments may be needed if these medications are taken together. Sulfasalazine increases the risk for liver injury if given with the drug isoniazid (INH) for tuberculosis, and may increase the risk for low blood sugar in patients taking certain diabetes drugs (sulfonylureas such as glimepiride (*Amaryl*), glyburide (*Diabeta*, *Micronase*, *Glynase*), glipizide (*Glucotrol*)).

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For additional information

The American College of Rheumatology has compiled this list to give you a starting point for your own additional research. The ACR does not endorse or maintain these Web sites, and is not responsible for any information or claims provided on them. It is always best to talk with your rheumatologist for more information and before making any decisions about your care.

National Institutes of Health

www.nlm.nih.gov/medlineplus/druginfo/medmaster/a682204.html

Official Sulfasalazine Website

www.sulfasalazine.com

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Written by Michael Cannon, MD, and reviewed by the American College of Rheumatology Communications and Marketing Committee.

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