

Minocycline (Minocin)

Minocycline (*Minocin*) is an antibiotic, part of the group known as tetracyclines. It may be used to treat rheumatoid arthritis (RA). Although RA is not thought to be caused by an infection, minocycline may improve the signs and symptoms of this disease. Minocycline belongs to the class of drugs known as DMARDs (disease-modifying anti-rheumatic drugs).

Fast Facts

- Minocycline is sometimes used for mild RA.
- It belongs to the group of tetracycline antibiotics which often are used to treat infections.
- Minocycline has a slow onset and may take several months to work.
- Minocycline should not be given during pregnancy or used when breastfeeding.

Uses

Minocycline is prescribed for patients with symptoms of mild <u>RA</u>. It is sometimes used in combination with other medications.

How it works

Minocycline is an antibiotic, which means it helps stop or kill bacteria that cause infections. When used to treat RA, however, minocycline works differently to control inflammation. Minocycline decreases the production of substances causing inflammation, such as prostaglandins, metalloproteinases and leukotrienes. It also increases production of interleukin-10, a substance that reduces inflammation.

Dosing

Minocycline usually is given as a 100 milligram (mg) capsule twice a day. It may be taken with food, although it should not be taken with other medications such as antacids or iron tablets.

Time to effect

It may take 2-3 months to notice improvement in arthritis symptoms. It may take up to a year before maximum benefits are realized.

Side effects

The most common side effects from this medicine are gastrointestinal symptoms, dizziness and skin rash. Patients who take this medication for a long time may notice changes in their skin color, but this usually resolves after stopping the medication.

Some women who take minocycline develop vaginal yeast infections. While this can occur with other antibiotics, it seems more common with minocycline and other tetracyclines. It is thought that minocycline kills bacteria that are normally present in the body and protect against yeast infections.

Minocycline may increase sensitivity to sunlight, resulting in more frequent sunburns or the development of rashes following sun exposure. It is recommended that patients apply sunscreen (SPF 15 or greater) before outdoor activities or avoid prolonged exposure to the sun while taking minocycline.

More rarely, minocycline can affect the kidneys or liver. Doctors may recommend periodic blood tests for long-term users to check liver and kidney function. In equally rare cases, minocycline can induce <u>lupus</u>, but this condition usually improves after stopping the medication.

Points to remember

Before taking minocycline, tell your doctor if you have ever had any unusual or allergic reaction to any other tetracycline antibiotic.

Minocyline use during pregnancy can slow the growth of teeth or bones in infants after birth. It also can cause discoloration of the newborn's teeth when taken during the last half of pregnancy. Minocycline may decrease the effectiveness of some birth control pills.

Minocycline is passed into breast milk, so mothers should avoid breast-feeding in order to prevent delayed development of teeth and bones in their infants. Minocycline can increase a nursing infant's risk of fungal infections or dizziness. Because minocycline may cause discoloration of teeth and problems with bone growth in young children, it is recommended that those younger than 8 years old do not take this medication. This is not a problem in older children and adults.

Drug interactions

Be sure to tell your doctor about all of the medications you are taking, including over-the-counter drugs and natural remedies. Possible interactions with minocycline may occur when taking warfarin (*Coumadin*), antacids containing calcium, aluminum or magnesium (such as Tums, Rolaids, Maalox, or Mylanta), iron tablets, oral contraceptives (birth control pills), tretinion ("retinoids"), Accutane, Soriatane, and methotrexate.

Information to discuss with your primary care physician and other specialists

Be sure to notify your other physicians that you are taking this drug. Women taking this medication should discuss appropriate forms of birth control with their primary care physician or gynecologist. It is important to remember minocycline may reduce the effectiveness of some birth control pills.

To find a rheumatologist

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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 Medline Plus link

www.nlm.nih.gov/medlineplus/druginfo/meds/a682101.html

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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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