



Leflunomide (*Arava*)

Description

Leflunomide (*Arava*) is a drug used to treat swelling and pain in arthritis. It belongs to a class of medications called disease-modifying antirheumatic drugs (DMARDs). This class of medicines can decrease joint damage and disability.

Fast Facts

- Leflunomide is often a second-line drug used to treat rheumatoid arthritis if initial drugs are not helping substantially.
- Leflunomide can cause liver injury, so alcohol and certain other medications should be avoided, and blood work should be performed regularly to monitor liver function.
- This medication can cause serious birth defects, and this risk may persist long after the drug is discontinued.

Uses

Leflunomide is used to treat the symptoms of [rheumatoid arthritis](#). It may be prescribed alone or with other medications, such as [methotrexate](#). It is sometimes used to treat other autoimmune conditions as well.

How it works

Leflunomide blocks the formation of deoxyribonucleic acid (also known as DNA), which is important for developing cells, such as those in the immune system. However, it is not completely clear how this medication works in rheumatoid arthritis.

Dosing

Leflunomide usually is given as a 20-milligram (mg) tablet once a day. Sometimes patients are given only 10 mg, especially if they experienced side effects with the higher dose. Often, doctors will prescribe a “loading dose” to be taken when the medicine is first prescribed. A loading dose is sometimes given for medicines that take a long time to build up in the body. The loading dose of leflunomide is usually 100 mg (or five 20 mg tablets) given once weekly for 3 weeks while taking the regular daily dose. Alternatively, some doctors will



prescribe a loading dose of 100 mg a day for the first 3 days after starting leflunomide. The loading dose increases the chances of experiencing diarrhea, but this side effect usually improves after completing the loading dose. Leflunomide probably should be taken with food.

Time to effect

It may take several weeks after starting leflunomide to experience an improvement in joint pain or swelling. Complete benefits may not be experienced until 6-12 weeks after starting the medication.

Side Effects

The most common side effect of leflunomide is diarrhea, which occurs in approximately 20% of patients. This symptom frequently improves with time or medications given to prevent diarrhea. If diarrhea persists, the dose of leflunomide may need to be reduced.

Less common side effects include nausea, stomach pain, indigestion, rash, or hair loss. In fewer than 10% of patients, leflunomide can cause abnormal liver function tests or decreased blood cell or platelet counts. Rarely, this drug may cause lung problems such as cough, shortness of breath or lung injury.

Points to remember

It is important that you have regular blood tests, including those for liver function, while taking this medication.

You should not take leflunomide if you have a pre-existing liver disease such as hepatitis or cirrhosis. Because alcohol may increase the risk of liver damage from leflunomide, alcohol should be avoided. Any alcohol use should be discussed with your doctor.

Leflunomide may cause serious birth defects. If you are pregnant or are considering having a child, you should discuss this issue with your doctor before beginning this medication. For this reason, it is not often prescribed to young women. Use of an effective form of birth control is critical throughout the course of this treatment *and for up to two years after it is stopped*. This is important, because leflunomide lasts in the body a long time, even after stopping the medication, and could still cause birth defects during this time. Men taking leflunomide who wish to have a child also should talk with their physicians about how to discontinue the medication. Both men and women who are on the medication and want to have a child should ask their doctors to prescribe another drug—cholestyramine—to help remove leflunomide from their systems. Breast-feeding while taking leflunomide is not recommended.

Some vaccinations should be avoided while taking this medication. Be sure to discuss any vaccines with your doctor before receiving them. It may be important to receive certain vaccines before starting this medication, such as the Pneumovax (pneumonia vaccine), hepatitis B, tetanus booster, or the Zostavax (shingles vaccine) for some patients. Also, be sure to notify your doctor before any surgeries while taking this medication.

Drug Interactions

Be sure to tell your doctor about all of the medications you are taking, including over-the-counter drugs and natural remedies, as these may reduce the effectiveness of leflunomide. The following medications are among those that may interfere with leflunomide: cholestyramine (*Questran*), tolbutamide (*Orinase*), and rifampin



(*Rifadin* or *Rimactane*). There are many other drug interactions, and any medication that can affect the liver should be used with caution with leflunomide.

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 especially important that women discuss the use of this medicine (even past use) with their obstetrician/gynecologist.

Live vaccines should be avoided while on this medication, and you should discuss updating your vaccinations prior to starting this medication. Because this medication can lower your immunity, it is important you discuss this with any physician treating you for an infection, as this may lead to a different evaluation or treatment.

The risk of liver injury may be increased if leflunomide is combined with other medications. Be sure to discuss this with other physicians when new medications are prescribed.

For more 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

www.nlm.nih.gov/medlineplus/druginfo/meds/a600032.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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