



Effective Health Care Program

Medicines for Psoriatic Arthritis

A Review of the Research for Adults



Agency for Healthcare Research and Quality
Advancing Excellence in Health Care • www.ahrq.gov

Is This Information Right for Me?

Yes, this information is right for you if:

- Your doctor* has told you that you have psoriatic (pronounced sore-ee-AH-tic) arthritis (PsA).
 - This is a type of arthritis that affects people with psoriasis (pronounced sore-EYE-ah-sis).
 - Psoriasis is an ongoing skin condition that causes red, scaly patches on your body.
- Your doctor has suggested that you take one or more of the following disease-modifying anti-rheumatic drugs (DMARDs, pronounced DEE-mardz)[†] to help treat your PsA.
 - Adalimumab (Humira®)
 - Etanercept (Enbrel®)
 - Golimumab (Simponi®)
 - Infliximab (Remicade®)
 - Leflunomide (Arava®)
 - Methotrexate (Folex®, Rheumatrex®, Trexall®)
 - Sulfasalazine (Azulfidine EN-Tabs®, Sulfazine®)
- You want to know what research says about how well these medicines work to treat PsA.

No, this information is not for you if:

- You have another kind of arthritis, such as osteoarthritis or rheumatoid arthritis.
- You have psoriasis (the skin condition) but do not have PsA.
- Your doctor has not suggested DMARDs for your PsA.
- You are under age 18. This information is from research on adults.

* In this summary, the term “doctor” refers to the health care professionals who may take care of you, including your physician, rheumatologist, dermatologist, nurse practitioner, or physician assistant.

[†] There are other DMARDs than those listed here. The DMARDs listed here are the ones studied in the research for this summary.

What will this summary tell me?

This summary will tell you about DMARDs, a type of medicine for people with PsA. It will also discuss the possible side effects of these medicines. It will tell you what research has found about how well DMARDs work to treat PsA. This summary can help you talk with your doctor about whether one of these medicines might be right for you. This summary does **not** discuss treatments for the skin condition of psoriasis.

DMARDs are used to treat several diseases that involve the immune system, and much of what is known about DMARDs comes from studies of patients with either rheumatoid arthritis or psoriasis. Much less research has been done with patients who have PsA and are taking DMARDs.

Where does the information come from?

Researchers funded by the Agency for Healthcare Research and Quality (AHRQ), a Federal Government research agency, reviewed 16 studies on medicines for psoriatic arthritis published before January 2011. The report was reviewed by clinicians, researchers, experts, and the public. You can read the report at www.effectivehealthcare.ahrq.gov/dmardspsa.cfm.



Understanding Your Condition

What is psoriatic arthritis?

Psoriatic arthritis (PsA) is a kind of arthritis that only affects people with psoriasis. Psoriasis is an ongoing skin condition that causes red, scaly patches on your body. PsA causes pain, swelling, and stiffness in your joints. Fewer people have PsA than other types of arthritis.

- Not everyone with psoriasis gets PsA. But people with psoriasis are more likely to develop arthritis than people who do not have psoriasis.
- In most cases, people get psoriasis before they develop PsA.
- Often, the symptoms of psoriasis get worse at the same time as the symptoms of arthritis begin.
- PsA is often mild, but it can involve many joints.
- PsA often affects joints at the ends of fingers or toes first and then spreads to include more joints and bones.
- Severe PsA can cause deformities in joints.

What causes PsA?

The cause of PsA is unknown, but researchers think the condition may be passed down in families. The pain and symptoms of PsA happen when a person's immune system (the system of the body that helps defend you from germs) attacks the healthy lining of the joints. Doctors are not sure why the immune system in some people attacks their joints. Doctors also do not know how to keep people with psoriasis from getting PsA.

How common is PsA?

- Less than 1 percent of adults in the United States have PsA.
- Out of every 20 people with psoriasis, 1 or more will develop PsA.
- PsA is most likely to develop in people between ages 30 and 50.

How can treatment help?

Although there is no cure for PsA, treatment can:

- Relieve pain and swelling
- Slow down or stop joint damage
- Help lower the number of symptom “flareups” (times when pain or swelling is the worst)
- Improve your ability to do daily activities such as bathing, getting dressed, doing chores, reaching, and lifting

What medicines are used to treat PsA?

PsA is treated with several different types of medicines, including:

- **Pain relievers:** Over-the-counter medicines such as aspirin, acetaminophen (Tylenol®), ibuprofen (Advil®, Motrin®), or naproxen (Aleve®)
- **Corticosteroids:** Medicines that can also relieve PsA pain and swelling for a little while
- **Disease-modifying anti-rheumatic drugs (DMARDs):** Medicines that can decrease symptoms, slow or stop joint damage, and improve your ability to do daily activities

This summary only looks at the research on DMARDs.



Understanding DMARDs

What are DMARDs?

DMARDs are a family of medicines that stop the body's immune system from attacking and destroying joints. If you have severe PsA symptoms or are not getting enough relief by using pain relievers or corticosteroids, your doctor may suggest a DMARD. DMARDs may be taken with each other and together with pain relievers and corticosteroids.

There are two types of DMARDs: nonbiologic and biologic.

Nonbiologic DMARDs

Like most medicines, nonbiologic DMARDs are produced from chemicals. They are usually taken daily or weekly as pills, but some can also be given as shots. Nonbiologic DMARDs studied in the research for this summary include:

- Leflunomide (Arava®)
- Methotrexate (Folex®, Rheumatrex®, Trexall®)
- Sulfasalazine (Azulfidine EN-Tabs®, Sulfazine®)

Biologic DMARDs

Biologic DMARDs are proteins similar to those made in your body, but these proteins are created in laboratories. Biologic DMARDs must be given as shots or through an IV (intravenous) tube into a vein in your arm. Biologic DMARDs studied in the research for this summary include:

- Adalimumab (Humira®)
- Etanercept (Enbrel®)
- Golimumab (Simponi®)
- Infliximab (Remicade®)

The biologic DMARD infliximab (Remicade®) must be given through an IV tube at a doctor's office or clinic. This could take up to 2 hours. Other biologic DMARDs come in injection pens that you can use at home.

Most biologic DMARDs are given once a month, once every other week, or once a week. Your doctor may change your schedule depending on how well you are doing.

What does the research say about nonbiologic DMARDs?

Researchers found that methotrexate (Folex[®], Rheumatrex[®], Trexall[®]), sulfasalazine (Azulfidine EN-Tabs[®], Sulfazine[®]), and leflunomide (Arava[®]) all appear to decrease PsA symptoms. More research is needed to know if any one of these medicines works better than the others.

What does the research say about biologic DMARDs?

Researchers found that:

- Adalimumab (Humira[®]), etanercept (Enbrel[®]), and infliximab (Remicade[®]) decrease PsA symptoms and improve the ability to do activities.
- Golimumab (Simponi[®]) appears to decrease PsA symptoms and improve the ability to do activities, but there is not enough research to know this for certain.
- Adalimumab, etanercept, golimumab, and infliximab appear to improve quality of life, but there is not enough research to know how much. Quality of life is a measure of how PsA affects you physically, emotionally, and socially.
- More research is needed to know if any one of these medicines works better than the others.
- Taking a biologic DMARD together with the nonbiologic DMARD methotrexate appears to work the same as taking a biologic DMARD alone, but there is not enough research to know this for certain.

How do nonbiologic and biologic DMARDs compare?

There is not enough research comparing nonbiologic DMARDs to biologic DMARDs to know which type of DMARD might work better to treat PsA.



What are the possible side effects of nonbiologic and biologic DMARDs?

Because nonbiologic and biologic DMARDs work in different ways, they have different side effects, some of which are serious.

Possible Side Effects of DMARDs

Nonbiologic DMARDs		Biologic DMARDs	
<ul style="list-style-type: none"> ■ Upset stomach ■ Nausea ■ Diarrhea ■ Hair loss 	<ul style="list-style-type: none"> ■ Mouth sores ■ Rash or serious skin reactions ■ Liver, kidney, or lung problems 	<ul style="list-style-type: none"> ■ Redness, swelling, itching, bruising, or pain in the area where the shot was given 	<ul style="list-style-type: none"> ■ Sinus infection (sore throat, runny nose, hoarseness) ■ Headache
Possible Serious Side Effects			
<ul style="list-style-type: none"> ■ In rare cases, the nonbiologic DMARD methotrexate and some biologic DMARDs (including adalimumab [Humira®], etanercept [Enbrel®], golimumab [Simponi®], and infliximab [Remicade®]) have been associated with: <ul style="list-style-type: none"> □ Serious infections such as tuberculosis (called “TB”), fungal infections such as yeast, pneumonia, or food-borne illnesses such as listeria □ Cancer, usually lymphoma (cancer in the lymph glands, which are part of the immune system) ■ The risk of serious infections or cancer is increased by taking two or more biologic DMARDs together or by taking a biologic DMARD with a nonbiologic DMARD. The exact risk to people with PsA who are taking a DMARD is not known. 			
<p>This information comes from the U.S. Food and Drug Administration (FDA) labels of these medicines.</p>			

Making a Decision

What should I think about when deciding?

More research is needed to know which DMARDs might work best for different people. There are several things to consider when choosing a medicine to treat your PsA:

- The trade-offs between the possible benefits and side effects for each medicine
- Which medicine best fits your lifestyle, what is important to you (your values), and your preferences
 - You may want to think about how comfortable you are with taking pills, getting shots, or taking the medicine through an IV tube. You may also want to consider how often you are able to go to the doctor's office or clinic and how much time you are able to spend there.
- The cost of each medicine

What are the trade-offs?

Only you and your doctor can decide whether taking a DMARD for your PsA is worth the risk of possible side effects. You and your doctor should discuss:

- The amount of pain or joint damage you have and whether treatment with a DMARD can help
- The risk of serious side effects from DMARDs
- Signs to look for to help you notice serious side effects so they can be treated or so your medicine can be changed
- Other options besides DMARDs that might help your PsA

What are the costs?

The costs to you for nonbiologic and biologic DMARDs depend on:

- Your health insurance plan
- The amount (dose) you need
- Whether you take the medicine as a pill, as a shot, or through an IV tube
- Whether a generic form of the medicine is available
- Whether the company that makes the medicine offers financial help to lower the cost

Wholesale Prices: Nonbiologic and Biologic DMARDs

Drug Name	Brand Name	Price per Month*	Form	Dose
Nonbiologic DMARDs				
Leflunomide	Generic	\$490	Tablet	20 mg daily
	Arava®	\$910		
Methotrexate	Generic	\$45–\$90	Tablet	7.5–15 mg weekly
	Folex®, Rheumatrex®, Trexall®	\$125–\$140		
Sulfasalazine	Generic	\$40	Tablet	2,000 mg daily
	Azulfidine EN-Tabs®	\$120		
	Sulfazine®	\$30		
Biologic DMARDs (<i>Generic versions of these medicines are not available.</i>)				
Adalimumab	Humira®	\$2,450	Shot	40 mg twice a month
Etanercept	Enbrel®	\$2,475	Shot	50 mg weekly
Golimumab	Simponi®	\$2,650	Shot	50 mg monthly
Infliximab	Remicade®	\$3,725–\$9,300	IV	200–500 mg twice a month (depending on your weight)
<p>* Prices are the average wholesale prices from RED BOOK Online® rounded to the nearest \$5. Generic prices are the middle value in the range of prices listed from different manufacturers. The actual prices of the medicines may be higher or lower than the prices listed here, depending on your health insurance and the manufacturer used by your pharmacy.</p> <p>IV = intravenous</p>				

Ask Your Doctor

- Do you think a DMARD could help my PsA?
- What serious side effects should I look for?
- Are there other medicines that I could take to help reduce symptoms and joint damage from PsA?
- How long will it take until I start to feel better?
- Will medicines for PsA affect my psoriasis skin condition? If so, how?
- Does the medicine I am taking for my psoriasis affect the medicine for PsA?
- Is there a less expensive medicine that I could take?
- What else can I do to help my PsA?

Other questions for your doctor:

Write the answers here:

Source

The information in this summary comes from the report *Drug Therapy for Psoriatic Arthritis in Adults: Update of a 2007 Report*, April 2012.

The report was produced by the RTI International–University of North Carolina Evidence-based Practice Center through funding by the Agency for Healthcare Research and Quality (AHRQ).

For a copy of the report or for more information about AHRQ and the Effective Health Care Program, go to www.effectivehealthcare.ahrq.gov/dmardspsa.cfm. Additional information came from the MedlinePlus® Web site, a service of the National Library of Medicine and the National Institutes of Health. This service is available at www.nlm.nih.gov/medlineplus.

This summary was prepared by the John M. Eisenberg Center for Clinical Decisions and Communications Science at Baylor College of Medicine, Houston, TX. Patients with psoriatic arthritis reviewed this summary.

