



Australian
Rheumatology
Association

PATIENT INFORMATION ON

D-PENICILLAMINE

(Brand name: D-Penaminate)

This information sheet has been produced by the Australian Rheumatology Association to help you understand the medicine that has been prescribed for you. It includes important information about:

- How you should take your medicine;
- What are the possible side effects;
- What tests you **must** have to monitor your condition and to detect unwanted effects; and
- Other precautions you should take.

Please read it carefully and discuss with your doctor.

What is d-penicillamine?

D-Penicillamine, usually referred to as penicillamine, (brand name D-Penaminate) is a medicine used to treat rheumatoid arthritis. Occasionally it is used to treat other rheumatic diseases such as systemic sclerosis.

Penicillamine should not be confused with the antibiotic penicillin, which is a different compound. Those who are allergic to penicillin may not necessarily be sensitive to penicillamine.

While penicillamine can be very effective for some patients, it is used infrequently today as more effective medicines have become available.

Penicillamine is an immunosuppressive medicine, which means that it works by reducing the activity of the immune system. In rheumatoid arthritis, this action helps to reduce inflammation and thus reduce pain and swelling. It also limits damage to the joints and helps to prevent disability in the long term.

Because penicillamine reduces the damage to the joints, rather than just relieving the pain, it belongs to the group of medicines called **disease modifying antirheumatic drugs (DMARDs)**.

For more information about RHEUMATOID ARTHRITIS see the Arthritis Australia website www.arthritisaustralia.com.au/index.php/art-hritis-information/information-sheets.html.

What benefit can you expect from your treatment?

Up to 75% of people treated with penicillamine respond well, and many improve quite dramatically.

Penicillamine does not work straight away. Reduced pain, stiffness and swelling may not be noticed for several months. The full effect may take up to 26 weeks.

Other medicines may be given to improve your symptoms while waiting for penicillamine to work.

If penicillamine treatment is stopped for more than a few weeks there is a risk that your condition may worsen. Continue with your treatment unless advised by your doctor or unless side effects develop.

How is penicillamine taken?

Penicillamine is taken by mouth in tablet form usually once or twice a day.

Treatment begins with a small dose, (usually 125mg or 250 mg a day) and is increased slowly if there are no side effects in the first few weeks of treatment.

Generally the maintenance dose of penicillamine is between 125mg to 750mg a day, depending on the response.

If you miss a dose, take it as soon as you remember, but if you remember when it is almost time for your next dose, take only the usual dose. Do not take a double dose.

Because the medicine binds to various foods, it is important to take it on an empty stomach or at least one hour before or 2 hours after a meal.

It is also important not to take *iron tablets, calcium, milk or antacids* within two hours of taking penicillamine as they reduce the absorption of the medicine.

Penicillamine may be used with other arthritis medicines including:

- other DMARDs such as methotrexate;
- steroid medicines such as prednisolone or cortisone injections into the joint;
- anti-inflammatory medicines (NSAIDs) such as naproxen (Naprosyn) or ibuprofen (Brufen/Nurofen); and/or
- simple pain medicines such as paracetamol.

Are there any side possible effects?

Below are possible side effects that you might experience with your treatment. Tell your doctor if you experience any side effects.

If you do experience side effects, a reduction in the dose may minimise these so that you can continue to take the medicine. Your doctor will advise on any dose changes that are necessary.

Common side possible effects:

- The most common side effect is a *skin rash*. This occurs in up to 15% of people taking penicillamine. The rash may be itchy. If the rash blisters, penicillamine will usually be stopped.
- *Mouth ulcers* may also occur. *Alterations in taste* are fairly common, but often disappear in a few weeks.
- There may be some degree of *nausea* (feeling sick) and *loss of appetite* at the

beginning, but these feelings often pass. See your doctor if these effects persist.

- **Kidney function:** In 5 to 20% of cases penicillamine may affect the kidneys and may cause a leakage of protein into the urine. Regular urine tests will therefore be done during your treatment (see below). Traces of protein in the urine are usually not a problem, but larger amounts will usually mean the treatment will be stopped. You should tell your doctor if you have had kidney problems in the past.

Less common or rare possible side effects:

There are some rare but potentially serious side effects with penicillamine.

- **Blood counts:** Penicillamine can cause a drop in the number of white blood cells, which are needed to fight infection. It can also cause a drop in the number of platelets, which help to stop bleeding. These effects occur in less than 5% of patients. Regular blood tests aim to pick these problems up early when they occur. However, if you develop a sore mouth, mouth ulcers, easy bruising, nosebleeds, bleeding gums, breathlessness, infection or fever tell your doctor straight away.
- Very rare side effects include painful breasts and diarrhoea.

Tell your doctor if you experience any possible side effects.

What precautions are necessary?

Blood tests:

- Since the blood cells may be affected by penicillamine, you **must** have regular blood tests during your treatment. This is very important, as you may not get symptoms with these problems.
- Blood tests are particularly important during the first few months of treatment.
- As well as monitoring for side effects, blood tests help to monitor your condition to determine if the treatment is effective.
- You will be advised how often these tests are necessary. It may be fortnightly to

