



PATIENT INFORMATION ON PREDNISOLONE & PREDNISONONE

(Also known as corticosteroids / cortisone / steroids)

(Examples of brand names: Panafcort, Panafcortelone, Predsone, Predsolone, Solone, Sone)

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 should have to monitor your condition and to detect unwanted effects**
- **other precautions you should take when you are taking prednisolone or prednisone.**

Please read it carefully and discuss it with your doctor.

Important things to remember:

- While taking prednisolone you should see your treating doctor regularly to make sure the treatment is working as it should and to minimise any possible side effects.
- You should not stop your treatment unless your doctor tells you to.
- You should not increase or reduce the dose of prednisolone unless your doctor tells you to.

For more information about RHEUMATOID ARTHRITIS see Arthritis Australia's Empowered website:
www.empowered.org.au

What is prednisolone?

Corticosteroids are hormones that are produced naturally in the body. They are necessary for normal working of the body.

Prednisolone and prednisone are man-made corticosteroids (also called steroids for short). Man-made corticosteroids are used to treat inflammatory diseases such as rheumatoid arthritis (RA), systemic lupus erythematosus (SLE/lupus) and other inflammatory disease. They have a strong anti-inflammatory effect and reduce the swelling and pain in joints and other organs. They do not cure the disease.

They should not be confused with male or female steroid hormones, which are known for their misuse among athletes.

Prednisolone is the most common type of corticosteroid prescribed. Although prednisone is slightly different the information contained in this document also applies to that medication.

What benefit can you expect from your treatment?

Prednisolone works very quickly. Within a few days you may notice your pain and stiffness is much better and/or your joints are less swollen.

How is prednisolone taken?

Prednisolone can be swallowed as tablets or liquid. It is usually taken once or twice a day. Sometimes it is taken every second day. It is usually taken in the morning, with or immediately after food.

Other corticosteroids can be given by injection into joints, soft tissues or muscles. An injection into a vein (intravenous) may also be given if required.

What is the dosage?

There are three different strengths of prednisolone tablets: 1mg, 5mg and 25mg. This means the dosage can be adjusted to suit your needs without you having to take large numbers of tablets. It is important to check the strength of the tablets as they look very similar.

The dose depends on the severity of the disease. A high dose may be used initially and then reduced by your doctor as symptoms improve. To minimise the risk of side effects the smallest dose possible will be used.

Sometimes your doctor may increase the dose temporarily when your body is under stress, for example during a surgical procedure or if you have a severe illness such as an infection.

After you have stopped prednisolone your doctor may prescribe it again for a short period in certain situations as described above.

Can other medicines be taken with prednisolone?

Prednisolone may be used with other arthritis medicines including:

- antirheumatoid arthritis medicine (also called disease modifying antirheumatic drugs or DMARDs) such as methotrexate
- biological DMARDs (a newer type of DMARD, which acts on natural substances in the body that contribute to inflammation and joint damage)
- simple pain relieving medicines such as paracetamol.

Prednisolone and other corticosteroids should be taken with caution with nonsteroidal anti-inflammatory drugs (NSAIDs) as the risk of side effects such as stomach ulcer is increased.

There are separate information sheets for the medicines mentioned above.

Are there any side effects?

Low dose prednisolone, taken for a few days or even a few weeks, does not normally cause any unwanted side effects.

If prednisolone is taken in high doses or for a long time certain predictable side effects can occur. Some of these improve after prednisolone is stopped. Many can be minimised by giving the lowest effective dose over the shortest possible period of time.

The effects may also be minimised by giving the medicine by injection into the joints or into a muscle.

Most common possible side effects

- *Weight gain:* The most common side effects are rounding of the face and weight gain around the stomach. These are due to altered metabolism, increased appetite and salt retention.
- *Osteoporosis (thinning of the bones):* While very low doses of prednisolone (less than 5 mg/day) are not very likely to cause thinning of the bones, moderate and high doses taken for long periods usually cause this problem.

Your doctor will tell you if you need a *bone density (BMD)* test to check your risk of osteoporosis.

To reduce the risk it is recommended that you:

- have 1000mg of calcium each day (e.g. 3 serves of dairy or calcium tablets)
- take 30 minutes of weight bearing exercise each day (e.g. walking)
- avoid smoking and avoid drinking more than 2 standard drinks of alcohol a day
- get some sunlight exposure each day to maintain vitamin D levels. You should wear sunscreen as usual to protect your skin from sun damage. As well as sun exposure, a vitamin D supplement may be recommended if vitamin D levels are low.
- *Skin:* The skin, especially on the arms and legs, can become thin, easily bruised and slow to heal. This occurs particularly after long term use, on higher doses and in older people with skin problems related to aging. In younger people acne may be a problem.

- **Diabetes:** Prednisolone can cause a rise in blood sugar in people with diabetes. This may require a change in their diabetes medicine. You should consult your general practitioner if you experience an increase in blood sugar levels.

Prednisolone can also cause the onset of diabetic symptoms in people who are at risk of diabetes.

- **Blood pressure:** Prednisolone may cause an increase in blood pressure or make it more difficult to control. This can be monitored and changes can be made to your blood pressure medicine if required. Your doctor will advise about frequency of monitoring.
- **Cholesterol:** Prednisolone can cause a rise in blood cholesterol. This can be monitored and changes can be made to your treatment if required.
- **Psychological effects:** Prednisolone can cause euphoria (feeling high) and/or other mood or personality changes such as irritability, agitation or depression. While some psychological effects are quite common, they rarely cause significant problems.
- **Trouble sleeping** may also occur but can be minimised by taking prednisolone in the morning.
- **Infections:** There may be an increased risk of some infections, including mouth infections (such as thrush), shingles and lung infections. Pre-existing infections such as tuberculosis (TB) may become active again. **It is important to tell your doctor if you have a chronic infection or you have been exposed to TB earlier in your life.**
- **Indigestion** or heartburn can occur. Taking prednisolone with food can reduce this.
- **Ulcers:** If taken with nonsteroidal anti-inflammatory medicines (NSAIDs) prednisolone can further increase the risk of stomach or duodenal ulcers. Your doctor will advise you about how to reduce this risk and about what symptoms to look out for.

Less common or rare possible side effects

- **Eyes:** With long term high dose treatment prednisolone may increase development of cataracts.

- **Other:** Facial flushes, constipation and avascular necrosis (a painful bone condition usually seen in the hip or knee) can occur very rarely.

Many of the above side effects can be managed or prevented by close medical supervision and by following your doctor's recommendations (see also *Precautions*, below).

What precautions are necessary?

Tests

- Blood sugar and cholesterol levels can be increased by prednisolone, so you will need to have *blood tests* to check these levels. Your doctor will tell you when the blood tests are required.
- Your general practitioner will be told about the tests you need to have. It is important to see your general practitioner if you have been asked to do so as they have an important role to play in monitoring your condition.

Use in pregnancy and breastfeeding

- Prednisolone may be used safely in pregnancy and breastfeeding. It is important to tell your doctor if you are, or intend to become pregnant or if you are breastfeeding.

Use with other medicines

- Prednisolone can affect how other medicines work. You should tell your doctor (including your general practitioner, rheumatologist and others) about all medicines you are taking or plan to take. This includes over the counter or herbal/naturopathic medicines.
- You should also mention your treatment when you see other health professionals, even if you have stopped taking corticosteroids within the last 12 months.
- Most vaccines can be given safely with prednisolone. Talk with your rheumatologist before receiving any vaccines.
- Yearly flu vaccines and Pneumovax are safe and recommended.

Surgery

- If you are going to have an operation it is important to tell the anaesthetist that you are taking or have been taking prednisolone or other corticosteroids in the last year.

- Your doctor may tell you that you need some additional prednisolone at the time of surgery.

Never stop taking prednisolone suddenly

- You should not stop taking prednisolone suddenly or increase or reduce the dose you have been prescribed unless your doctor tells you to.
- Your adrenal glands, which are just above the kidneys, normally make corticosteroids in small amounts. These are important for many normal body functions.
- If prescribed corticosteroids are taken, the body begins to make less than usual or even stops making corticosteroids completely.

- If the medicine is then *suddenly* stopped there may be a problem as the adrenal glands won't have had time to make the corticosteroids needed. This problem is called *adrenal insufficiency*.
- Signs of adrenal insufficiency include weakness, fatigue, fever, weight loss, vomiting, diarrhoea and abdominal pain. If you experience any of these problems, seek medical help.

How to store prednisolone

- Store prednisolone tablets at room temperature, away from heat, moisture and light (e.g. not in the bathroom).
- Keep all medicines out of reach of children.

Questions?

If you have any questions or concerns write them down and discuss them with your doctor.

Your doctor's contact details

If you are taking prednisolone or other corticosteroids you should see your rheumatologist regularly to make sure the treatment is working and to minimise any possible side effects.

The information in this sheet has been obtained from various sources and has been reviewed by the Australian Rheumatology Association. It is intended as an educational aid and does not cover all possible uses, actions, precautions, side effects, or interactions of the medicines mentioned. This information is not intended as medical advice for individual problems nor for making an individual assessment of the risks and benefits of taking a particular medicine. It can be reproduced in its entirety but cannot be altered without permission from the ARA. The NHMRC publication: *How to present the evidence for consumers: preparation of consumer publications* (2000) was used as a guide in developing this publication.