What are steroids and how do they act?

What are the different types of steroids?

For what conditions oral steroids are prescribed?

How oral steroids are available?

How are steroids administered?

When do I take steroids?

What dose of steroid is given? How long can steroids be given?

How long steroids take to act?

What special dietary instructions should I follow?

Why is it necessary to reduce the dose gradually before stopping steroids?

Do steroids cause any side-effects?

What are the side effects?

Who cannot take oral steroids?

Can other medicines be taken while taking steroids?

Medicines which can interact with steroids

Warfarin (a blood-thinning medicine to prevent blood clots).

Non-steroidal anti-inflammatory drugs (NSAIDs), like ibuprofen, diclofenac etc. These drugs when taken with steroids can cause stomach ulcers.

Live vaccines - They are not usually given for three months after high-dose steroid.

Epilepsy drugs like carbamazepine, phenytoin, phenobarbital.

Diabetes drugs.

Bronchodilators (such as salbutamol).

Digoxin.

Diuretics.

HIV drugs.

Antifungal drugs.

Some antibiotics.

How to monitor while on steroids

- Weight and blood pressure have to be monitored, as weight gain and high blood pressure are side effects of steroids.

- Bone density has to be monitored, as steroids cause thinning of the bones.

- Eyes need to be monitored for cataracts.

Can steroids be given during pregnancy?

Steroids are safe for men and women wanting to conceive. Taking steroids during pregnancy is a low risk to the baby. Although small amounts of steroids may cross the placenta, up to 40mg prednisolone daily is considered safe for the baby. There is increased risk of intrauterine growth retardation (baby grows more slowly in the womb) if mother is on high dose of steroids, is taking steroids long-term or repeatedly during pregnancy. There may be a doubtful small risk of cleft lip and palate in babies born to mothers taking steroids during the first three months of pregnancy. If steroids are required during pregnancy the lowest possible dose for the shortest possible time should be used.

Can steroids be given during breastfeeding?

Very small amount of steroid may pass to the baby through milk so it is usually safe to breastfeed while taking steroids.

Use of steroids in children and adolescents

The use of steroids can slow down normal growth of children and adolescents, so dose adjustment or treatment stoppage may be done.

Steroid treatment in the elderly

In elderly patients, some of the steroid side effects can be more serious e.g. brittle bones, diabetes, high blood pressure, infections and thinning of the skin. Caution should be exercised.
What are steroids and how do they act?
Steroids are chemicals (hormones) that occur naturally in the body and help to maintain health and well-being. Steroid medicines are available as tablets, dispersible tablets and liquids available as tablets, dispersible tablets and liquids. 

1. Steroids are available as tablets, soluble tablets and liquids available as tablets, dispersible tablets and liquids.

2. Oral steroids are used to treat a wide range of inflammatory and auto-immune conditions
   - Autoimmune diseases (e.g. systemic lupus erythematosus, pemphigus).
   - Allergies, including severe allergic reactions.
   - Joint and muscle diseases (e.g. rheumatoid arthritis).
   - To prevent organ rejection after a transplant.
   - Asthma.
   - Inflammation affecting blood vessels, heart, bowel or kidneys.
   - Inflammatory bowel diseases (e.g Crohn’s disease, ulcerative colitis).
   - Some cancers, including leukemia, lymphoma and myeloma.

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4. How are steroids administered?
   - By mouth (oral)-It is the usual route.
   - By injection into muscle (intramuscular).
   - By injection into veins (IV infusion).
   - By injection directly into a swollen joint (intraarticular).

5. What are the different types of steroids?

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6. How do steroids work?
Steroids should be taken first thing in the morning with milk on empty stomach.

7. What is the dose of steroid given? How long can steroids be given?
The dose will vary with individual steroids and the disease (dose may vary between 5 and 60 mg) for which they are prescribed. For short-term use, usually a high dose, to control symptoms, is given daily, for a few days/weeks and then stopped abruptly at the end of the course. If the steroid is required for more than three weeks, the dose needs to be tapered gradually and only once the condition improves, the treatment is gradually stopped. Sometimes steroids are needed lifelong as symptom return if they are stopped. In some cases steroids are to be taken every other day.

8. How long steroids take to act?
With oral steroids, within a week one feels better, but it could take up to a month. With intravenous steroids, it can take up to 10 days to feel better after starting treatment. Few people do not respond to steroid treatment, which is known as being steroid refractory.

9. What special dietary instructions should I follow?
A low-salt, high potassium, or high calcium diet is advisable. Supplemental Calcium (1200 - 1500 mg) and Vitamin D (400- 800 IU) is usually prescribed with steroids.

10. Why is it necessary to reduce the dose gradually before stopping steroids?
When steroids are taken for a few weeks or more, the body may reduce or stop making its own steroids. Hence if steroids are stopped suddenly, body does not have any steroids which can lead to various withdrawal symptoms that occur until the body resumes making natural steroids. The withdrawal symptoms can be serious/ life-threatening and include:
   - Weight gain, especially on the face, neck and abdomen.
   - Muscle weakness (especially of thigh muscles causing difficulty in getting up).
   - Osteoporosis (thinning of bones) and fractures.
   - Poor healing after injuries, thinning of skin, easy bruising and stretch marks.
   - Difficulty in sleep (insomnia).
   - Increased risk of infections (eg chicken pox, reactivation of tuberculosis).

11. Do steroids cause any side-effects?
Side-effects do not occur with short course of steroids. Side effects are more likely if long course of steroids (more than 2-3 months) are taken or, short courses are taken repeatedly. The higher the dose, the greater is the risk of side-effects. Hence lowest possible dose which controls symptoms is aimed for when steroids are needed long-term. A common treatment plan is to start with a high dose to control symptoms and then the dose is slowly reduced to a lower daily dose that keeps symptoms away. The length of treatment can vary depending on the disease.

12. What are the side effects?
   - Elevated eye pressure (glaucoma), that if not diagnosed can result in lower vision.
   - Fluid retention leading to swelling in the lower legs.
   - High blood pressure (hypertension).
   - Mood swings.
   - Weight gain, especially on the face, neck and abdomen.
   - Cataracts - Clouding of lens in one or both eyes.
   - High blood sugar (diabetes).

13. Who cannot take oral steroids?
Steroids cannot be given to some patients e.g. in people who have serious infections, as steroids suppress immune system. Steroids should be used with caution in the following individuals:
   - In whom liver is not functioning well.
   - Having history of mental health problems.
   - Having open wounds (steroids can interfere with wound healing).
   - Having a history of stomach/duodenal ulcers.
   - Having ‘thinning’ of the bones.
   - Having certain heart conditions like heart attack, heart failure or high blood pressure.