



LUPUS MEDICINES

STERIODS

Questions answered:

What kind of medicines are steroids?

What do steroids do?

How do you take steroids?

What do you do if you forget to take your steroids?

What are the side effects of steroids?

How can we prevent these side effects from happening?

When should you call your doctor?

What kind of medicine are steroids?

- Some medicines fight pain, heat, and inflammation. They are called anti-inflammatory medicines. Corticosteroids or steroids, such as prednisone or methylprednisone, fight inflammation.

What do steroids do?

- Low doses (1 to 10 milligrams per day) of steroids are used to reduce pain and swelling in and around your joints.
- They are also used for rashes, pleurisy or chest pain, or other symptoms of lupus.
- Steroids are also used for short periods of time when you and your doctor are waiting for another medicine to work.
- Typically, the benefits can be felt within a few days.
- High doses of steroids are only used if your lupus is very bad and hard to control. Your doctor may prescribe steroids when there is serious inflammation in other parts of the body, such as your kidneys or lungs.

How do you to take steroids?

- Most steroids are taken as pills.
- They can also be taken as an infusion
- If you have one very painful joint, tendon or bursa, your doctor may give you a steroid shot (injection) into that area. This will reduce your pain without side effects to your whole body.
- You should not receive more than 3-4 injections a year into the same areas.

What do you do if you forget to take your steroids?

- If you miss a dose of steroids, **do not** make it up or double your next dose

What are the side effects of steroids?

Generally, the higher the dose of steroids, the higher the risk of having these side effects.

- Short-term side effects: These can happen within a few days of starting steroids:
 - Trouble sleeping (insomnia)
 - Restlessness, irritability, anxiety, depression, and psychosis (psychosis is rare and the risk is highest with very high dose steroids)
 - Increased appetite and possibly weight gain (related to appetite)
 - High blood sugar. Patients with diabetes who take insulin may need to speak with their doctor about adjusting their insulin dose.
 - High blood pressure
 - Stomach upset or heartburn
 - Stomach ulceration and/or bleeding, especially if you are taking ibuprofen (Motril), naproxen (Aleve), or other medications like these
 - Infections
- Long-term side effects: People who need to take steroids for more than a few weeks are at risk of having these side effects, in addition to the short-term side effects:
 - Infections - in particular, a serious fungal pneumonia called "PCP pneumonia"
 - Weight gain, and possibly swelling in the legs
 - Glucose intolerance or diabetes
 - Skin changes (acne/pimples, stretch marks, poor wound healing, thinned skin, easy bruising)
 - Adrenal insufficiency - your adrenal glands will eventually stop making their own steroid, cortisol, because you are taking pills of steroids instead. When it is time to stop taking steroids, we generally need to decrease the dose of steroids gradually -- rather than stopping steroids suddenly -- so that your body can start making its own cortisol again.
 - Osteoporosis (thin bones with increased risk of fracture)
 - Cataracts
 - Glaucoma
 - Muscle weakness
 - Avascular necrosis of bone (low blood supply to the bone, causing bone changes and pain)

How can we prevent these side effects from happening?

- To reduce the risk of infections: Avoid being around people with contagious illness (for example, the flu, chickenpox, shingles) while you are taking steroids. Wash your hands often. Call your doctor or seek medical help if you think you have an infection.
- Make sure your vaccines are up to date. Check with your doctor before receiving any vaccines while you are taking steroids, because some vaccines are not safe to receive depending on the dose of steroid that you are taking.

- Some patients taking long-term steroids may also need to take other medications to reduce the risk of these side effects. These depend on the dose of steroids and other medical problems that the patient already has:
 - Bactrim (trimethoprim-sulfamethoxazole), atovaquone, or dapsone: to prevent PCP pneumonia
 - Bisphosphonates, such as alendronate (Fosamax) or zoledronic acid (Reclast), and calcium with vitamin D: to prevent osteoporosis
 - Omeprazole (Pepcid) or pantoprazole (Nexium): to prevent stomach ulceration
 - Medications to help with sleep, if needed
- If you have cataracts or glaucoma to begin with, speak with your eye doctor to let them know you are starting to take steroids and make sure your eye exams are up to date
- If you have diabetes, speak with your diabetes doctor about your blood sugar readings and whether you need to adjust any of your medications
- When possible, your rheumatologist will try to start a "steroid-sparing" medication, so that you can eventually stop taking steroids and instead take a different medication to treat your inflammation.

When should you call your doctor?

- Call your doctor or seek medical help if you have signs of infection, like fever higher than 100.4 degrees Fahrenheit, cough, chest pain with breathing, pain with urination, diarrhea with abdominal pain, or rash.

Be sure to talk to your rheumatologist if you have any other questions or concerns.