

Medications in Nephrotic Syndrome: Steroids

Why do steroids work?



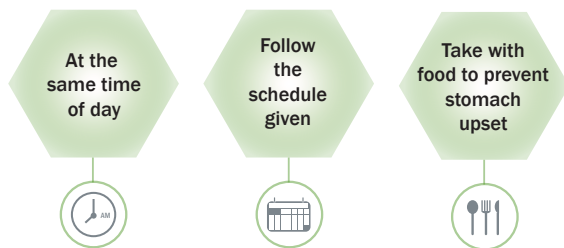
Steroids act on the immune system to stop protein leaking into urine and reduce swelling

Steroids are the most effective treatment

>90% of children respond to steroids

It may take several weeks to see a difference in your (your child's) condition.

How do I (does my child) take steroids?



Steroids come in tablet and liquid forms

TIP: Crush tablets into yogurt, jam, apple sauce, mashed potato, or other soft foods. Add liquid to 1 tbsp. milk or juice to improve taste.

Steroids treat initial episodes & relapses

TREATMENT OF THE FIRST EPISODE

6 weeks of daily treatment
(full dose = 2 mg/kg/day
or 60 mg/m²/day)



10 weeks of every
other day treatment
(gradually reduced dose)

16 weeks total

TREATMENT OF RELAPSES

Full dose treatment
until no protein in urine
for 5 days in a row



Treatment dose reduced
gradually over several weeks

Precautions on steroids



If you (your child) throw(s) up:

< 30 min. → repeat dose once

> 30 min. → do not repeat;
call team for advice

Watch for signs of infection (steroids may mask symptoms)



Do not receive vaccines without talking to the healthcare team



Let the dentist know you are (your child is) on steroids

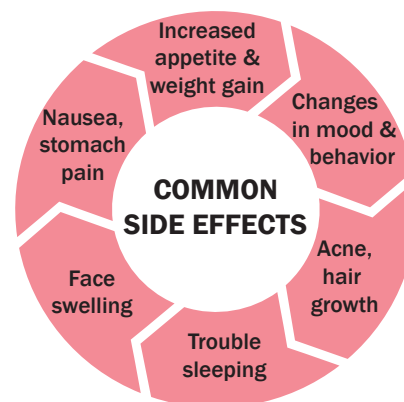


Eat a low sodium, low calorie diet

CHECK GROWTH, BONES & EYES REGULARLY

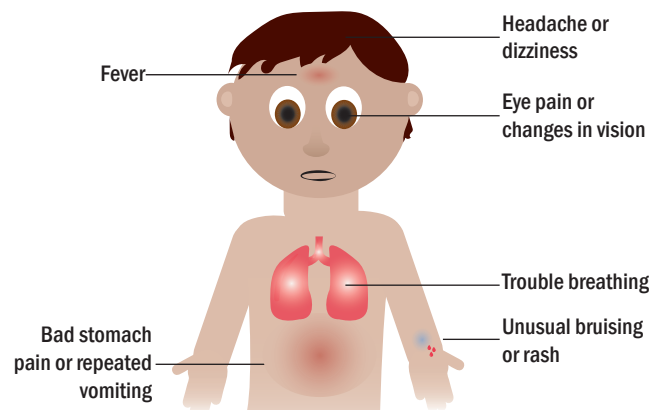
Steroids may cause slower growth, bone, and eye problems when used over long periods of time.

Side effects



Most of these side effects will go away when the dose is reduced

Seek medical care for any of these symptoms:



Steroids: Additional Resources

Incidence and outcomes of nephrotic syndrome

INSIGHT Publication: *Ethnic Differences in Incidence and Outcomes of Childhood Nephrotic Syndrome*
<http://cjasn.asnjournals.org/content/11/10/1760.short>

How steroids work

National Institute of Diabetes & Digestive & Kidney Diseases (NIDDK): *How is nephrotic syndrome treated?*
<https://www.niddk.nih.gov/health-information/kidney-disease/children/childhood-nephrotic-syndrome>

The Kidney Foundation of Canada: *Treatment for childhood nephrotic syndrome*
<https://www.kidney.ca/childhood-nephrotic-syndrome?>

How to give steroids

AboutKidsHealth (SickKids): *How should you give your child prednisone, prednisolone, dexamethasone?*
<http://www.aboutkidshealth.ca/En/HealthAZ/Drugs/Pages/Prednisone-Prednisolone-and-Dexamethasone-Corticosteroids-Taken-for-a-Short-Time.aspx>

NephCure Kidney International: *How is prednisone administered?*
<https://nephcure.org/livingwithkidneydisease/treatment-options/prednisone/>

Side effects

The Royal Children's Hospital Melbourne: *What is the main treatment of nephrotic syndrome?*
http://www.rch.org.au/uploadedFiles/Main/Content/clinical-guide/130561%20SCOTT%20Nephrotic%20Syndrome%20booklet%20A5_LR.pdf

NephCure Kidney International: *Children on Prednisone*
<https://nephcure.org/livingwithkidneydisease/treatment-options/prednisone/life-on-prednisone-children/>

Dealing with behavioral issues and mood changes

Hospital for Special Surgery: *How to reduce corticosteroid side effects, Section 8 - Mood changes*
https://www.hss.edu/conditions_steroid-side-effects-how-to-reduce-corticosteroid-side-effects.asp

Coping with prednisone (& other cortisone-related medicines). Eugenia Zukerman & Julie R. Ingelfinger. 2nd Ed. 2007.

Long-term side effects

The Royal Children's Hospital Melbourne: *Won't large doses of prednisolone cause side effects?*
http://www.rch.org.au/uploadedFiles/Main/Content/clinical-guide/130561%20SCOTT%20Nephrotic%20Syndrome%20booklet%20A5_LR.pdf

infoKID (British Association for Pediatric Nephrology): *Side effects*
<http://www.infokid.org.uk/nephrotic-syndrome#section-5>

Medicines for Children (Royal College of Paediatrics and Child Health): *Side-effects with high doses or long courses*
<http://www.medicinesforchildren.org.uk/prednisolone-oral-nephrotic-syndrome>

AboutKidsHealth (SickKids): *Corticosteroids given for a long time*
<http://www.aboutkidshealth.ca/En/HealthAZ/Drugs/Pages/Corticosteroids-Given-for-a-Long-Time.aspx>