

A Reminder from your Seattle Children's Nephrology Team:

# Children with nephrotic syndrome need the PPSV-23 vaccine

Children 2+ years old should receive the PPSV23 vaccine.

They need a 2<sup>nd</sup> dose 5 years after the first.

PPSV23 is effective even in patients receiving high doses of steroids.

PPSV23 can be given concurrently with other vaccines (except PCV13).

## References:

### Redbook Vaccine

Recommendations:  
[https://redbook.solutions.aap.org/SS/immunizations\\_Schedules.aspx](https://redbook.solutions.aap.org/SS/immunizations_Schedules.aspx)

### CDC:

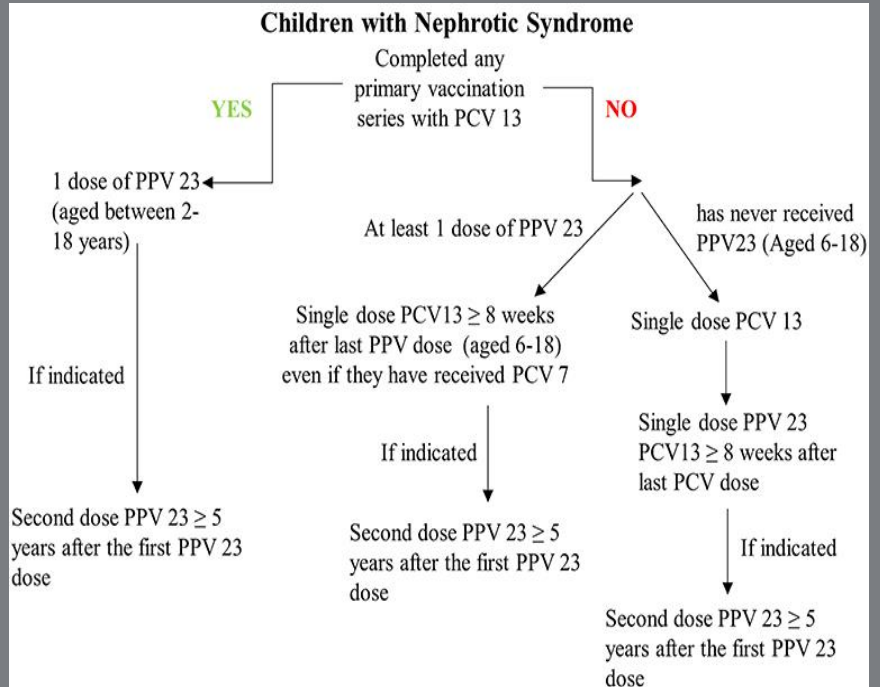
[www.cdc.gov/vaccines/vpd/pneumo/hcp/who-when-to-vaccinate.html](http://www.cdc.gov/vaccines/vpd/pneumo/hcp/who-when-to-vaccinate.html)

Goodenwardene ST, et al. Safety and Efficacy of Pneumococcal Vaccination in Pediatric nephrotic Syndrome. *Front. Pediatr.* (2019). <https://doi.org/10.3389/fped.2019.00339>

## Children with nephrotic syndrome are at increased risk of serious bacterial infection with encapsulated bacteria.

In part due to loss of opsonizing factors, children with nephrotic syndrome are at increased risk of pneumococcal infections. Reduced serum concentrations of IgG, decreased levels of some alternative complement pathway factors and frequent need for immunosuppressive therapy all contribute to increased risk of developing serious infections. Their increased risk of developing ascites and pleural effusion can also create a more conducive environment for bacterial growth and infections such as pneumonia and peritonitis.

## Recommended Pneumococcal Vaccine Schedule:



From Goodenwardene et al.