

# Membranous Nephropathy (MN)

## Overview and Symptoms

Membranous Nephropathy (MN) is a rare kidney disease characterized by thickening in the part of the kidney that filters blood: the glomerular basement membrane. The thicker membrane does not work normally and causes protein that belongs in the blood to be spilled into the urine.

Symptoms of Membranous Nephropathy include:

- Swelling (**edema**) in eyes, hands, feet and abdomen
- Foamy or bubbly urine, caused by protein spilling into urine (**proteinuria**)
- Can cause high blood pressure (**hypertension**) and high fat levels in the blood (**high cholesterol**)
- Low levels of protein in the blood (**hypoalbuminemia**)

## Fast Facts

The only way to differentiate Membranous Nephropathy from other primary Nephrotic Syndrome conditions is to have a kidney biopsy.

### MN In Adults

- MN occurs more frequently in adults than in children and is most prevalent in adults 40 years or older.
- Some patients with MN do not respond to steroid treatments (steroid-resistant).
- MN is the most common cause of primary Nephrotic Syndrome in Caucasian adults.

### MN In Children

- MN in children is rare and accounts for less than 5% of new pediatric diagnoses of Nephrotic Syndrome each year

## Membranous = the Kidney Membranes Nephropathy = are Damaged

MN is caused by the build-up of immune complexes within the kidney that form when a person's antibodies attack something foreign in the body.

Over time, MN patients may go into remission, remain stable, or experience gradual loss of kidney function.

Remission means there is currently no protein spilling into the urine.

1/3 of MN patients will go into a spontaneous remission without treatment.

Up to 40% of Membranous patients develop End Stage Kidney Disease (ESKD).

# Treating Your Disease

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## SHORT-TERM GOALS

The short-term goal of treatment is to stop protein from spilling completely (remission) or lower the amount of protein lost in the urine as much as possible.

## LONG-TERM GOALS

The long-term goals of treatment include preventing relapses of protein in the urine and preventing the deterioration of kidney function.

**There are no currently FDA-approved medication options for MN. The standard first-line treatment for MN is Prednisone, a corticosteroid.**

## How to Live With Your Disease

- 1. Following a low salt diet and taking prescribed medications from your nephrologist** may help improve your kidneys' function and your MN symptoms.
- 2. Finding a nephrologist that specializes in MN** that you trust is very important to your long-term health.
- 3. Learn about your disease, treatment options, and clinical trials** in order to better advocate for yourself.
- 4. NephCure Kidney International can help you connect with other patients** and find support to manage your disease.

NephCure Kidney International is working every day to leverage support to find better treatments and a cure for rare, protein-spilling kidney diseases.



**PLEASE VISIT [NEPHCURE.ORG](https://www.nephcure.org) TO LEARN MORE ABOUT MN AND NEPHROTIC SYNDROME.**