

# Membranous Nephropathy (MN)

**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.

**Membranous = the Kidney Membranes**

**Nephropathy = are Damaged**

## MN Symptoms

Early symptoms of Membranous Nephropathy are the same as Nephrotic Syndrome.

### Common Symptoms:

- Swelling in parts of the body, most noticeably around the eyes, hands, feet, and abdomen (called **edema**)
- Protein in the urine, which can be foamy (called **proteinuria**)
- Can cause high blood pressure (called **hypertension**) and high fat levels in the blood (**high cholesterol**)
- Low levels of protein in the blood

## 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.
- MN is the most common cause of primary Nephrotic Syndrome in **Caucasian adults**.

### MN in Children

- MN is associated with less than **5% of all new cases of Nephrotic Syndrome** in children each year.
- Some patients with Membranous Nephropathy are steroid-resistant.

MN is caused by the **buildup of immune complexes within the kidney** that form when a person's antibodies attack something foreign to the body.

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

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

Up to 40% of Membranous patients develop **End Stage Renal Disease (ESRD)**.

Every MN patient follows a **unique journey**.

Up to 40% of MN patients will go into a **spontaneous remission** without treatment.

# Treating Your Disease

## Short-Term Goals

The short-term goal of treatment is to **stop protein spillage 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 recurrences** of protein in the urine and **preventing the deterioration** of kidney function.

It is important to know that up to 40% of MN patients will go into a spontaneous remission without treatment. If proteinuria continues, **the first line therapy is often alternating corticosteroids and an alkalying agent such as cyclophosphamide**, monthly.

# How to Live With Your Disease

- 1.** Following a **low-fat, low-sodium diet** will help with your kidney health and your MN symptoms.
- 2.** Finding a **nephrologist 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 **Membranous Nephropathy**.

Please visit **NephCure.org** to learn more about MN & Nephrotic Syndrome.