Thin Basement Membrane (TBM)

- What is Thin Basement Membrane Disease?
- What does it look like (under the microscope)?
- What are the symptoms?
- What is the treatment?

**What is Thin Basement Membrane Disease?**

TBM disease (also known as benign familial hematuria and thin basement membrane nephropathy) is, along with IgA nephropathy, the most common cause of blood in the urine without any other symptoms. The only abnormal finding in this disease is a thinning of the basement membrane of the glomeruli (filters) in the kidneys. Most patients with TBM disease maintain normal kidney function throughout their lives.

**What does it look like (under the microscope)?**

The glomerular basement wall in patients with TBM disease appears thinner.

The image below is taken with an electron microscope. On the left shows a healthy kidney filter basement wall, and on the right shows a basement wall in a person with TBM disease.

![Image showing the glomerular basement wall in a healthy person](image1.png)

![Image showing the glomerular basement wall in a patient with TBM](image2.png)
What are the symptoms?

TBM disease usually does not have any symptoms a person can feel. Usually the disease is diagnosed when a small amount of blood is found looking at a urine sample under a microscope. Most patients with TBM disease are discovered to have blood in the urine when they get their urine tested for other reasons. Patients with TBM usually have normal blood pressure and normal kidney function. Mild protein in the urine (less than 1.5g/day) and high blood pressure are seen in a small group of patients.

What is the treatment?

In most cases TBM disease is not treated. Most people with the disease maintain normal kidney function. Most people with TBM disease have their kidney function followed by their doctor.