

Asymptomatic Microscopic Hematuria

Voices for PFD



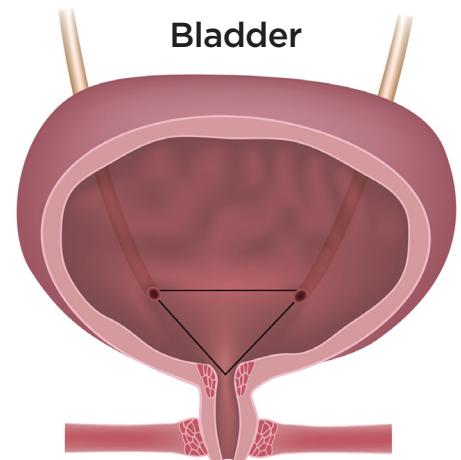
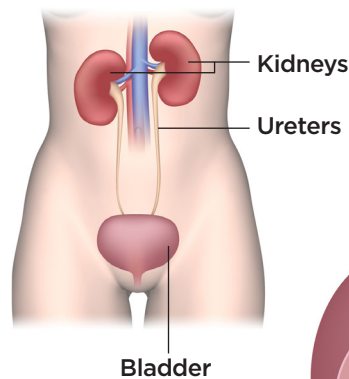
Asymptomatic microscopic hematuria (AMH) occurs when there is an abnormal amount of red blood cells (RBC) in a single properly collected urine sample. Many benign conditions can cause this. An evaluation should be performed to rule out concerning conditions, such as cancer.

About AMH

Asymptomatic microscopic hematuria is defined as 3 (sometimes 5 based on lab) or more red blood cells in a single properly collected urine specimen. Your health care provider may screen your urine with an office dipstick. Urine dipsticks are a good preliminary test but blood in the urine needs to be confirmed. This is done by sending the sample to the laboratory to be examined under a microscope.

A variety of factors may cause a preliminary urine dipstick to have a false positive result. These may include the following:

- menstrual blood
- menopausal changes
- intense physical exercise
- small cuts or tears at the vagina or vulva
- unknown cause



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LEARN THE TERMS

Asymptomatic microscopic hematuria

(AMH): defined by 3 or more RBCs seen in the laboratory under a microscope on a properly collected urine sample.

Clean catch urine sample: A sample of urine collected mid-stream after using a wipe. A mid-stream sample is obtained in the following fashion: The patient first urinates directly into the toilet. Once there is a steady stream, the collection cup is introduced to get a "midstream" sample.

Gross hematuria: blood that can be seen by the naked eye in a urine sample.

Microscopic urinalysis: obtaining a urine sample and reviewing under microscope for different characteristics.

Red blood cells (RBC): medical term for blood.

Straight catheter sample: A sample obtained by introducing a catheter through the urethra and taking the urine directly from the bladder.

Urine dipstick: specialized paper placed into a urine sample that turns color based on presence of factors.

Urinary tract: includes urethra (the opening where your urine comes out of) bladder, ureters (tubes that empty urine from kidneys to bladder), and kidneys.

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Other causes of blood in the urine include kidney stones and urinary tract infection.

One concerning diagnosis that can cause AMH is urinary tract cancer. Risk factors for cancer of the urinary tract include the following:

- age older than 60 years
- blood that can be seen in the urine (gross hematuria)
- tobacco use
- family history of bladder cancer

Bladder cancers are not common in women. Your health care provider will discuss this with you and may recommend additional testing. This could include looking in the bladder with a cystoscope (specialized camera) to evaluate the inside of the bladder and opening of the bladder (urethra). Imaging of the upper urinary tract (kidneys and ureters) may also be performed via kidney ultrasonography or a specialized computerized tomography (CT) scan.

Diagnosing AMH

A properly collected urine sample includes a clean catch or straight catheter sample. An office urine dipstick is not enough to confirm the diagnosis. A straight catheter sample may be needed when there is concern for contamination of blood from the vulva or vagina. By taking the sample directly from the bladder, it ensures that the sample does not have this contamination. This sample will then be sent to the laboratory to be analyzed for the presence of RBCs. A urinalysis result from the laboratory with 3 or more RBCs confirms the diagnosis. Based on your risk factors your doctor may then recommend further evaluation to ensure that AMH is due to a benign (non-cancerous) condition.

Three Takeaways

- 1. AMH is defined as 3 (sometimes 5 based on the lab) or more RBCs in a single properly collected urine specimen. Based on a patient's risk factors, the health care provider may recommend further testing.**
- 2. There are many benign causes of AMH.**
- 3. Urinary tract cancer is rare but it is important to rule out. Your doctor will make recommendations on any other tests needed.**