

Blood in the Urine

Understanding microscopic hematuria and visible/gross hematuria

Why you are getting this guide

Blood in the urine is called hematuria. It can be stressful to hear, but most patients do not end up having cancer. The goal of your urology visit is to use a careful, guideline-based approach so that important problems are not missed.

Microscopic hematuria

Blood cells are seen under the microscope on a urine test. You usually cannot see the blood yourself.

Visible / gross hematuria

The urine looks pink, red, tea-colored, brown, or visibly bloody. Visible blood usually needs a more complete evaluation.

Common reasons blood can appear in the urine

- Urinary tract infection or inflammation
- Kidney stone or bladder stone
- Enlarged prostate or prostate bleeding in men
- Recent catheter, procedure, exercise, or irritation
- Kidney cysts or other benign kidney findings
- Medical kidney disease
- Bladder, kidney, or upper tract cancers
- Sometimes no clear cause is found

How worried should I be?

For microscopic hematuria, the chance of finding a cancer is usually low and depends on age, sex, smoking history, the number of red blood cells, whether the blood persists, and other risk factors.

Risk group	Approximate cancer risk
Low / negligible risk Microscopic hematuria	~0-0.4%
Intermediate risk Microscopic hematuria	~0.2-3.1%
High risk Microscopic hematuria	~1.3-6.3%
Visible / gross hematuria Often evaluated more completely	Higher

These numbers mean most patients do not have cancer. We still evaluate when recommended because blood in the urine can be an early sign of a problem before pain or other symptoms appear.

What tests might be recommended?

Your plan depends on your risk category

Not every patient needs the same testing. Low-risk microscopic hematuria may only need a repeat urine test. Intermediate-risk patients commonly need cystoscopy plus kidney/bladder ultrasound. Higher-risk patients or patients with visible blood often need cystoscopy plus more detailed imaging such as a CT urogram, if safe.

Common parts of the hematuria evaluation

Test	What it is for
Repeat urine test	Checks whether microscopic blood goes away or persists.
Cystoscopy	A brief camera exam of the urethra, prostate area in men, and bladder. This is important because imaging alone does not reliably rule out bladder problems.
Kidney/bladder ultrasound	A no-radiation imaging test that looks at the kidneys and bladder. Often used for intermediate-risk microscopic hematuria.
CT urogram	A CT scan with IV contrast designed to evaluate the kidneys, ureters, and bladder area. Often used for higher-risk microscopic hematuria or visible blood, when appropriate.
Urine culture or cytology	Used selectively. A culture checks for infection. Cytology looks for abnormal cells and is not needed for every patient.

What is cystoscopy like?

Cystoscopy is usually done in the office. Numbing jelly is used. The exam is brief, and most patients can drive themselves home afterward.

What about blood thinners?

Aspirin, Plavix, Eliquis, Xarelto, warfarin, and similar medicines can make bleeding more noticeable, but they do not automatically explain it. Do not stop a blood thinner unless the prescribing doctor tells you to.

What can the workup find?

Possible results

- No concerning cause found
- Kidney stone or bladder stone
- Enlarged prostate or prostate bleeding
- Urethral narrowing or scar tissue
- Kidney cyst or kidney mass
- Bladder irritation or inflammation
- Bladder tumor or upper tract tumor
- A finding that needs follow-up but not immediate treatment

If the evaluation is negative

A normal evaluation is reassuring. It does not mean the original urine test was wrong - it means no dangerous source was found at that time.

Depending on your situation, your doctor may recommend no further testing, a repeat urine test in the future, or additional evaluation only if the blood persists, worsens, or becomes visible.

Call or message the office sooner if you develop

- Visible blood in the urine or blood clots
- New or worsening urinary symptoms
- Flank pain, fever, or recurrent infections
- Unexplained weight loss or other concerning symptoms

Main point

Blood in the urine is common and often has a benign explanation. Many evaluations are negative. The reason we recommend a standardized workup is to be careful and complete, and to make sure we do not miss bladder cancer, kidney cancer, stones, or another important urinary tract problem.

This guide is educational and does not replace your individualized medical plan. Your urologist will recommend testing based on your history, urine results, kidney function, and risk factors.

Source note: Based on the AUA/SUFU microhematuria guideline risk-based approach and published hematuria evaluation data.