



## Hematuria 血尿(英文)

---

### What is hematuria?

Hematuria is red blood cells in the urine which might be gross hematuria and microscopic hematuria. Gross hematuria means the hematuria (red urine) can be seen by naked eyes clearly. Microscopic hematuria is only detected by microscopy with more than three red blood cells per high-power-field and cannot tell by naked eyes.

### What is the etiology of hematuria? Is it “painful” ?

Many conditions lead to hematuria. Common causes include infection, inflammation, trauma, stones or tumors from kidney, ureter, urinary bladder, and urethra. Hematuria can also cause by systemic disease like bleeding tendency.

Urinary tract infection is the most common cause of hematuria. Typical urinary tract infection symptoms are pain while pee, frequency, sometimes with flank pain and/or fever. Urinary stones typically cause red urine with flank pain.

Glomerulonephritis usually presented with microscopic hematuria without pain. Tumors are frequently painless though sometimes painful with micro- or gross hematuria.

### Dose “red urine” mean hematuria?

The “red urine” is not necessarily hematuria. Urine would turn red when people take some medicine or foods such as carrot, beet or food coloring. Besides, urine would show red color when hemolysis or rhabdomyolysis occur. However, if red urine appears, we advise you to visit doctors for further evaluation.

### General examination

Urinalysis is necessary to differentiate etiology of hematuria.

Sometimes, X-ray, sonography, intravenous pyelography, cystoscopy, urinary cytology, and renal biopsy might be needed.

X-ray of the kidney, ureter and bladder helps to visualize radiopaque stones. Renal sonography is used to speculate if there are hydronephrosis, stone, tumor or other morphological change.

Intravenous pyelography is applied to evaluate lesions in the urinary tract. Urine cytology and cystoscopy are used to evaluate possible uroepithelial tumor. Renal biopsy is applied when glomerulonephritis is suspected. These exams are ordered according to clinical condition.

## Conclusion

Hematuria is a common clinical sign. There are many causes with different severity. Complete medical history taking, physical examination in cooperated with urine analysis, sonography, or further examinations could help to make correct diagnosis and treatment.

---

若有任何疑問，請不吝與我們聯絡  
電話：(04) 22052121 分機 3255,7360