

HAEMATURIA

Introduction

- Haematuria is the presence of blood in the urine.
- Haematuria can be either gross (visible with the naked eye) or microscopic (only visible with the help of a microscope)

Signs and Symptoms

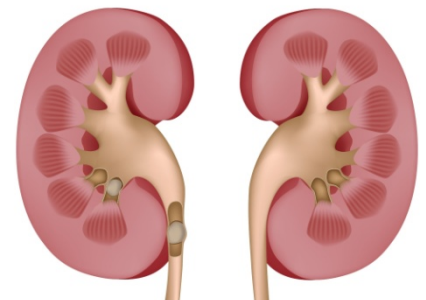
- Gross haematuria usually presents as pink, red or cola-coloured urine and is usually painless.
- Blood clots in the urine can sometimes be painful.
- Sometimes the urine may appear normal in colour but upon lab testing found to be contaminated with blood.
- Certain drugs, foods (eg. Beets, rhubarb and berries) and exercise may cause a change in urine colour, but the change in colour usually goes away within a few days.
- Regardless of the cause for haematuria, medical attention is required.

Common Causes

- **Upper and lower urinary tract infections**
 - Due to bacteria entering the body through the urethra and then multiplying in the bladder, subsequently migrating to the kidneys if treatment is not given in time.
 - Associated symptoms include painful urination, frequent passing of urine, inability to hold the urine in the bladder for long, smelly urine, fever and flank pain.
- **Renal stones**
 - Minerals in concentrated urine sometimes form crystals on the walls of the kidneys or bladder, subsequently forming hard stones.
 - These renal stones can cause flank pain which may radiate to the groin.
 - Haematuria from renal stones are due to the renal stones damaging the inner walls of the urinary tract, leading to bleeding.

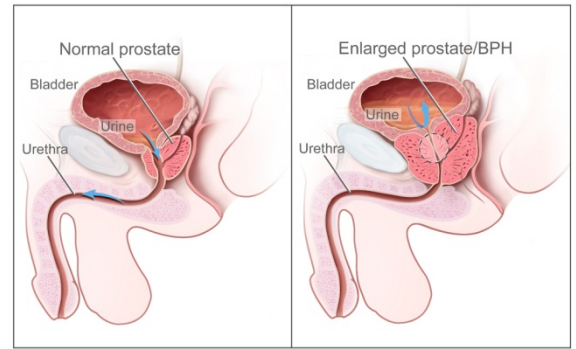


Kidney Stones



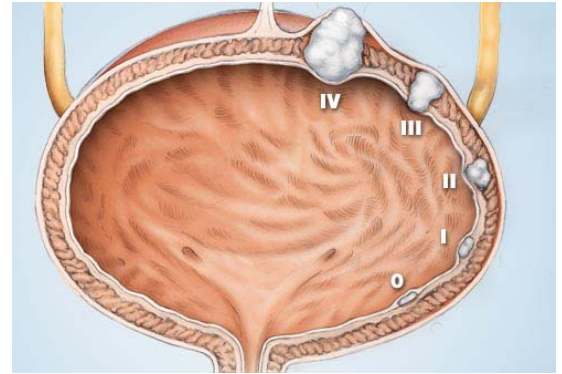
- **Enlarged prostate and prostatitis**

- Prostate glands enlarge with age in men, causing compression of the urethra by middle age and blocking urine flow.
- Associated symptoms include difficulty passing urine, urgent or persistent need to urinate and commonly microscopic haematuria.



- **Cancer**

- Cancer of the bladder, urinary tract, kidneys and prostate can all cause haematuria of varying degrees.
- Cancers from other sources that spread to the urinary tract can also cause haematuria.



- **Kidney injury**

- Any abdominal trauma especially to the back where the kidneys are situated can cause kidney injury and resultant haematuria.



- **Medications**

- Cyclophosphamide and penicillin have been found to cause haematuria in some people.
- Common anticoagulants such as aspirin, heparin and warfarin can cause haematuria if the dosage is too high.

- **Strenuous exercise**

- Rarely, strenuous exercise can lead to haematuria of unknown mechanism.
- It is theorized that haematuria could have been due to bladder trauma, dehydration or breakdown of red blood cells during a sustained aerobic exercise.

Further Tests

- **Urine tests**
 - Urinalysis and microscopy
- **Imaging**
 - X-ray, CT scan, MRI and ultrasound to detect renal stones, prostate enlargement and cancers if indicated.
- **Cytoscopy**
 - The doctor inserts a narrow tube fitted with a tiny camera into the bladder to closely examine the urethra and the bladder for signs of disease

Treatment and Management

- There is no specific treatment for haematuria.
- Treatment and management is geared towards the underlying cause of haematuria as determined by the doctor.
- After treating the underlying cause, the haematuria will resolve spontaneously.