

Haematuria

What is haematuria?

'Haematuria' is the presence of red blood cells in the urine. Under normal conditions, urine would not contain red blood cells.

Types of Haematuria

Blood is not always visible. When present in very small quantities, the urine looks normal. This is called microscopic haematuria or microhaematuria. It can be detected only by a dipstick test or when red blood cells in the urine are seen under the microscope.

When blood is visible, the urine may look pinkish, red or smoky brown (tea-coloured). This is called macro or gross haematuria. It often causes considerable concern, and just a few millilitres of blood can turn a whole bladder full of urine red.

What causes haematuria?

Haematuria has many causes. It can arise from any condition that results in inflammation or injury along the urinary tract. The urinary tract system consists of a pair of kidneys, ureters, the urinary bladder and urethra.

Sometimes, we can tell the site of bleeding by observing the colour of the urine stream:

Initial - at the beginning of the stream only, generally indicates bleeding from the urethra that is flushed out by the first passage of urine.

Terminal - at the end of the stream only, localises the bleeding area to the posterior urethra, bladder neck or base of the bladder, and is noticed at the end of urination.

Throughout the entire stream - indicating that bleeding occurs at the level of the bladder or higher in the urinary tract, so that all of the urine is mixed with the blood.

Some common causes are:

- Kidney stones
- Urinary Tract Infection
- Growths (cancerous and non-cancerous)
- Inflammation of the kidney of which glomerulonephritis is one cause
- Inherited causes such as polycystic kidney disease
- Medications which thin blood such as warfarin

Sometimes urine can be coloured pink or red without bleeding from the urine tract being present. This may be due to:

- Food and food colouring such as beetroot and blackberries (anthocyanin pigment)
- Medications such as phenothiazines, certain laxatives and pain medications
- Menstrual blood – which can accidentally contaminate a urine specimen

What are the symptoms?

Blood in the urine is itself a symptom. Other symptoms related to the underlying cause of the bleeding may also be present.

These include:

- Pain in the back, lower abdomen or groin
- Burning sensation or pain when passing urine
- Fever
- Nausea or vomiting

How can we differentiate the various conditions that cause haematuria?

As with all medical conditions, it is very important that you tell your doctor what you know about your previous experiences with haematuria and the circumstances surrounding it. This, together with the physical examination and certain targeted investigations, will permit more accurate diagnosis of the underlying problem.

Some of the commonly ordered tests are:

- Urine protein test using the urine test strips (dipstick) or a more specific laboratory test to quantify the amount of protein present in the urine.
- Urinalysis for white blood cells and chemical constituents
- Urine culture
- Blood tests for kidney function
- Radiological investigations:
 - Intravenous pyelography (IVP) which involves injecting a dye into the bloodstream through a vein and taking a series of X-rays.
 - Ultrasound scan which uses high frequency sound waves to 'see' structures inside the body. This does not involve any radiation and is safe even in pregnancy.
 - CT scan is like an X-ray but gives more details.
- Cystoscopy involves inserting a flexible tube with a camera at the tip to examine the bladder wall. It is performed under local anaesthetic by a urologist.
- Renal biopsy may be suggested if moderate or severe grade inflammation of the kidney (glomerulonephritis) is diagnosed. This test involves taking a very small piece of kidney tissue and examining it under the microscope. You will need admission to hospital for this.

How is Haematuria Treated?

This would depend on the cause. Treatment may be very different. That is why investigation is necessary before your doctor can treat you.

Some useful hints:

- If you have visible blood in your urine, do not attempt to treat yourself with home remedies. See a doctor without delay.
- If you have a urinary tract infection, you will need to take antibiotics. Be sure to finish the course.
- If you have kidney stones, be sure to drink plenty of water to help pass the stones and prevent stones from forming. You may need to take pain relievers.
- If a medication is causing haematuria, stop the medication after talking it over with your health care provider.
- If you have glomerulonephritis, you will need long term follow-up to ensure the disease is under control. Glomerulonephritis may lead to kidney failure but kidney failure is often preventable so the opportunity should not be missed.

Remember that it is always important to find out the cause of blood in the urine.



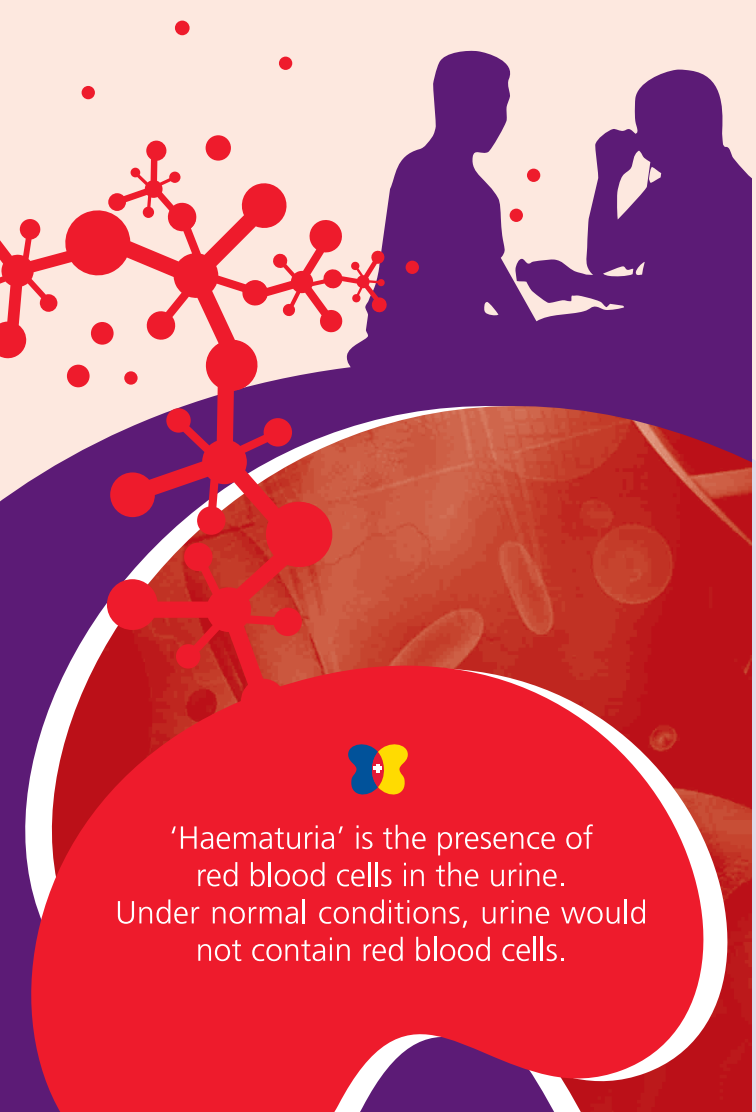
You may visit these websites for more information:

<http://www.kdf.org.sg/health.aspx>
<http://www.davita.com>
<http://www.uptodate.com/patients/index.html>

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血尿

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什么是血尿？

血尿是指尿液中出现红细胞。在正常情况下，尿液中是不应该含有红细胞的。

血尿的类型

肉眼有时是无法看出尿中的血液。这是因为尿液中红细胞的含量很少，因此尿液看起来似乎是正常的。这种血尿称为**显微镜血尿**或**微血尿**，可用验尿纸测试或在显微镜下察看是否有红细胞。

当肉眼可以看到血液时，尿液可能呈现粉红色、红色或茶褐色，称为**肉眼血尿**。通常只需几毫升的血液就可使整个膀胱中的尿液呈红色，经常引起患者极大的关注。

什么因素造成血尿？

血尿的成因很多。因任何状况而导致排尿系统的部位发炎或受损都可能造成血尿。整个排尿系统包括一对肾脏、输尿管、膀胱和尿道。

有时候，我们可以观察尿液排流的颜色以判断出血的部位：

前段尿 – 血尿只出现在排尿开始的阶段，通常可确定尿道出血。

末段尿 – 血尿只出现在排尿尾端，出血部位可局限于尿道末端、膀胱颈或膀胱底部

全程尿 – 表示出血部位在膀胱或尿道上端，使尿液与血液混合。

常见的因素有：

- 肾结石
- 尿道感染
- 肿瘤增生（致癌和非致癌）
- 肾脏发炎，例如肾小球肾炎
- 遗传性疾病，例如多囊肾病
- 使血液变薄的药物，例如华法令（warfarin）

尿液有时候可能呈现粉红色或红色但并非由尿道出血引起。这可能是因为：

- 食物及食色素，如甜菜根、黑莓（花色素苷）
- 药物，例如酚噻嗪（phenothiazines）、某些轻剂和止痛药经血，可能在采取尿液样本时混经血。

有哪些症状？

尿液中有血是一种症状，其他导致流血的症状也可能存在。这些包括：

- 背痛、小腹疼痛或腹股沟疼痛
- 排尿时有灼热感或疼痛
- 发烧
- 恶心或呕吐

如何分辨导致血尿的不同状况？

和其他的医药情况相同，您必须将您的血尿经历及相关情况告诉您的医生。这是非常重要的。这些信息连同身体检查与相关的明确检测，将有助于更加准确的诊断成因。

常见检查包括：

- 尿液蛋白质检查，使用验尿纸或送去实验室测定尿蛋白质的含量
- 尿液检查，测定白细胞及化学成份
- 尿液培养
- 血液检查肾功能

放射性调查：

- 静脉肾盂造影（IVP）是指在静脉中注射造影剂然后拍摄一系列的肾脏X-光片。
- 超声波扫描是利用高频率声波检查内脏器。它不含有放射线，即使孕妇也能安全进行。
- 电脑断层扫描（CT扫描），类似于X光摄片，但更精确地检查

• 膀胱镜检查是用备有摄像功能的软管插入膀胱检查其内侧表面情况。这项检查由泌尿科医生在局部麻醉下进行。

• 肾脏活细胞检查是在医生诊断出病人可能患有中度或高度肾脏发炎（肾小球肾炎）时建议进行的检查。这项检查必须取出病人肾脏的一小片肾脏组织进行显微镜检查，而病人必须住院进行检查。

如何治疗血尿？

治疗方法取决于造成血尿的因素，因此治疗方法将因人而异。医生会做进一步的检查以确定原因才进行治疗。

有用的建议：

- 如果您有血尿，不要尝试自己治疗，必须尽快求医。
- 如果您有尿道感染，您需要服用抗生素，并完成整个抗生素疗程。
- 如果您有肾结石，确保您饮用大量水份以帮助排石，并防止结石变大。您可能需要服用止痛剂。
- 如果药物引起血尿，与医生商量后才停止服用药物。
- 如果您患有肾小球肾炎，您将需要长期复诊以确保疾病获得控制。肾小球肾炎可导致肾衰竭；但肾衰竭是可以预防的，所以不要错失医治机会。

切记！查出血尿的原因是非常重要的。



欲知详情，可参阅以下的网址：

<http://www.kdf.org.sg/health.aspx>

<http://www.davita.com>

<http://www.uptodate.com/patients/index.html>

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