Hematuria

“Hematuria (https://www.radiologyinfo.org/en/info/hematuria) ” is the word used for describing blood in the urine. In small amounts, blood in the urine is considered normal.

Hematuria is divided into two categories. Gross hematuria is when a person can see blood in the urine. Microhematuria is when the blood can only be seen by a microscope. The blood can come from anywhere along the urinary tract. The causes are divided into nephrogenic (from the kidneys) and urogenic (from the bladder).

For microhematuria, individuals with no risk factors and with a known cause for the blood may not require an imaging test. Examples of known causes of microhematuria include strenuous exercise, current or recent menstruation, or infection or viral illness. In some cases, a CT of abdomen and pelvis (https://www.radiologyinfo.org/en/info/abdominct) without intravenous (IV) contrast may be appropriate.

For individuals with risk factors and without a known cause of microhematuria, a CT urography (https://www.radiologyinfo.org/en/info/urography) (also known as CTU, a special CT to see the urinary tract) without and with IV contrast is usually appropriate. Other types of imaging may be appropriate and include MRU (MRI urography) without and with contrast, CT of the abdomen and pelvis without and with contrast, CT of the abdomen and pelvis without contrast, and ultrasound (US) (https://www.radiologyinfo.org/en/info/abdominus) of the kidneys and bladder.

For pregnant women with microhematuria, US of the kidneys and bladder is usually appropriate. MRU without contrast may be appropriate.

For individuals with gross hematuria, blood that is directly visible in the urine, a CTU without and with contrast and MRU without and with contrast are usually appropriate. Other CT, MRI, and US imaging examinations may be appropriate.

— By Kristin Jordan Moore and Khushboo Jhala, MD, MBA. This information originally appeared in the *Journal of the American College of Radiology*.

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