What is Hematuria?

**Definition:** The word *hematuria* means blood in the urine.

**Microscopic hematuria** means that the blood is only seen when the urine is examined under a microscope. **Gross hematuria** means that there is enough blood in the urine so that it can be seen with the naked eye.

**Anatomy:**
To understand the evaluation needed for hematuria, it is helpful to know a little bit about the anatomy of the urinary tract. The kidneys make urine by filtering blood, then discarding into the urine the waste products that are no longer needed. Water and salts accompany these waste products. The urine is then transported through two ureters, or narrow tubes, to the bladder, which holds the urine until it is full enough to require emptying through urination.

**Causes:**
Hematuria can have many different causes, some more serious than others. Some examples of the more serious causes include cancers, stones, infections, and obstructions, or blockages, to urine flow. Other less serious causes include viral infections or inflammation of the kidney. Inflammation can occur as a result of medication reactions, such as with non-steroidal anti-inflammatory medications (NSAIDs), and are usually without permanent damage to the kidney. Medications used to thin the blood’s clotting ability, such as Aspirin and Coumadin, can also lead to the presence of blood in the urine. **Benign**, or non-cancerous, enlargement of the prostate is a very common source of blood in the urine in men. It does not require any treatment if no significant blockage is present.

Often times, a cause is never identified. The main objective of a thorough evaluation is to rule out the more serious causes of hematuria, such as a cancer.

**Diagnosis:**
The provider will obtain a thorough medical history from the patient, which may include...
What YOU really need to know.

The primary concern when evaluating the patient with hematuria is finding malignancy somewhere in the urinary tract.

Previous injury/illness, family history, social habits, urinary habits, history of stone disease, and even possible environmental exposures. The patient will also be asked to leave a urine sample upon arriving to the office, so that it can be sent to the lab to look for infection and/or cancer cells.

The provider will likely recommend imaging of the upper urinary tract with studies such as ultrasound, x-ray, and/or CT scanning. He/She will also encourage the patient to return for an office procedure, called cystoscopy, to further evaluate the urethra and bladder. Cystoscopy is a procedure that is used to visually inspect the bladder and the urethra using a small camera. This can be done in most instances without discomfort by the use of an anesthetic jelly within the urethra. This test usually takes no longer than 10-minutes, and involves no general anesthesia, such as that used during a surgery. Afterwards, the patient might expect a mild degree of discomfort with urination, and in some cases, may see blood in the urine for 2-3 days. An antibiotic may be prescribed for a few days following the cystoscopy to help prevent infection.

Follow-up:
Follow up recommendations will vary based on the findings during evaluation and each provider’s individual protocol.

For More Information:
For more information about hematuria, contact the following resource:
National Kidney and Urological Diseases Information Clearinghouse (NKUDIC)
3 Information Way
Bethesda, MD 20892
Phone: (800) 891-5390
Fax: (703) 738-4929
E-Mail: nkudic@info.niddk.nih.gov
Web: http://kidney.niddk.nih.gov

Suzanne Sexton, PA-C

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