

## THE URINARY SYSTEM

The human's urinary system consists of two kidneys, two **ureters**, a **urinary bladder** and a **urethra**. Its function is to secrete and excrete the urine, and it is connected with the renal tract.

### Urinary Disorders

The section of medicine that deals with the urinary disorders is called **urology**.

A term used to describe the elimination of urine from the blood is the **urinary output**. Any change in amount or type of output can indicate a **disorder of the urinary system** as:

- a) Anuria-no urine is produced,
- b) Uraemia - suppressed urine production, waste products remain in circulating blood,
- c) Polyuria - excessive secretion of urine,
- d) Nocturia - elimination of urine several times during the night,
- e) Incontinence - inability to control urination,
- f) Retention of urine - failure to eliminate urine from the bladder.

Urinary disorders can be diagnosed by tests on urine, blood chemistry, radiological examinations, e.g. **cystoscopy**, (which is an insertion of a light scope into the urethra and bladder to allow direct visualisation under a local or general anaesthetic and is used to identify stones, tumours or strictures) or a **renal biopsy** (removal of renal tissue for microscopic study, a surgical procedure done by a nephrologist), ultrasound and tomography.

**Cystitis** is an inflammation of the bladder lining caused by bacteria or by injury. Bacteria can enter the bladder through the urethra and pathogens grow in urine that is retained in the bladder for a long period. Cystitis is more common in females than in males because their urethra is shorter and pathogens from the vulva and anus can gain entrance more easily. The symptoms are the frequent desire to void and elimination of a small amount of urine, a burning sensation that accompanies urination and blood-tinged urine. Bacteria in the bladder can travel upward in the tract and cause the infection of the ureter (ureteritis) or the kidney. Also the recurrence rate of cystitis is common so it must be treated long and carefully with antibacterial medications of the sulphonamide group or urinary antiseptics.

## VOCABULARY

|  |                                    |
|--|------------------------------------|
| <b>adrenal glands</b> [æ'dri:nl glænds]        | nadledvinky                        |
| <b>albumin</b> [æ'lbu:min]                     | bílkovina                          |
| <b>bladder</b> [blædə]                         | močový měchýř                      |
| <b>Bowman's capsule</b><br>[bəu'mæns kæpsju:l] | Bowmanovo pouzdro                  |
| <b>cast</b> [ka:st]                            | močový válec ( <i>mikroskop.</i> ) |
| <b>cloud</b> [klaud]                           | zákal                              |
| <b>cortex</b> [ko:teks]                        | kůra                               |
| <b>creatinine</b> [kri'æti:ni:n]               | kreatinin                          |
| <b>cystitis</b> [sis'taitis]                   | zánět močového měchýře             |
| <b>dilatation</b> [dailei'teišn]               | rozšíření                          |
| <b>drainage</b> [dreinidž]                     | drenáž                             |
| <b>encapsulated</b> [in'kæpsjuleitid]          | opouzdrěný                         |
| <b>excrete</b> [eks'kri:t]                     | vyměšovat                          |
| <b>filtrate</b> [filtreit]                     | filtrát, filtrovat                 |
| <b>focal</b> [fəukl]                           | ložiskový                          |
| <b>frequency</b> [fri:kwensi]                  | četnost, frekvence                 |
| <b>glomerulus</b> [glo'meruləs]                | klubíčko, glomerul                 |
| <b>granular</b> [grænjulə]                     | zrnitý                             |
| <b>haematuria</b> [hi:mə'tjuəriə]              | krev v moči                        |
| <b>leak</b> [li:k]                             | téci                               |
| <b>leakage</b> [li:keidž]                      | unikání, ztráta                    |
| <b>medulla</b> [mə'dalə]                       | dřeň, mícha                        |
| <b>nephritis</b> [ne'fraitis]                  | zánět ledvin                       |
| <b>output</b> [autput]                         | výdej                              |
| <b>pass water</b> [pa:s wo:tə]                 | zde: močit                         |
| <b>pituitary gland</b> [pi'tjuitari glænd]     | podvěsek mozkový, hypofýza         |
| <b>prostate gland</b> [prosteit]               | předstojná žláza, prostata         |
| <b>pubis</b> [pju:bis]                         | kost stydká                        |
| <b>reabsorbtion</b> [ri:əb'so:pšn]             | zpětné vstřebávání                 |
| <b>release</b> [ri'li:s]                       | uvolnit, vypustit                  |
| <b>renal</b> [ri:nl]                           | ledvinový                          |
| <b>renal pelvis</b> [pelvis]                   | ledvinná pánvička                  |
| <b>secretion</b> [si'kri:šn]                   | vylučování                         |
| <b>sediment</b> [sedimənt]                     | usazenina                          |
| <b>stones</b> [stəunz]                         | kameny                             |

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|---|---------------------|
| <b>stricture</b> [stri:kčə]               | zúžení              |
| <b>symphysis pubis</b> [simfisis pju:bis] | spona stydká        |
| <b>tubule</b> [tju:bjū:l]                 | kanálek             |
| <b>urea</b> [juəriə]                      | močovina            |
| <b>urine</b> [juəri:n]                    | moč                 |
| <b>vena cava</b> [vi:nə'keivə]            | dutá žíla           |
| <b>void</b> [void]                        | vyprázdnit, prázdný |