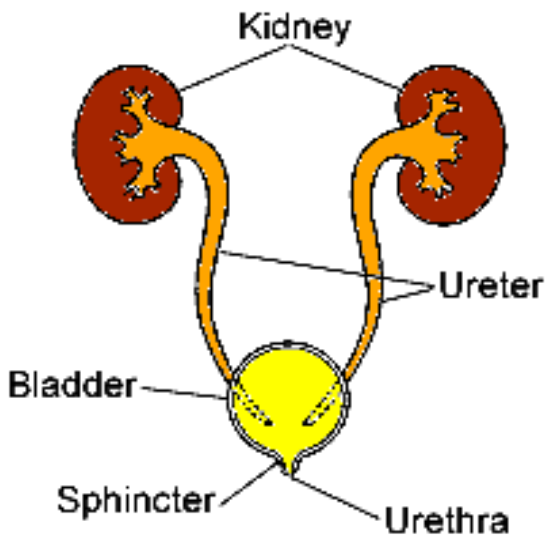


CERTIFIED ADVANCED HERBALISM COURSE - SESSION 20: The Urinary System

The urinary system filters the blood and removes waste chemicals and excess water from the body. The kidneys, ureters, bladder and urethra make up the urinary system.



A host of problems and disorders can affect this system. These include kidney stones, diabetes mellitus, hypertension, kidney cysts and tumors, infections, water retention, incontinence and back pain.

Examining the Urinary System

Humans have two kidneys, each about 4-5 inches long and about 6 ounces in weight. They lie in the abdomen, one underneath the liver and the other underneath the spleen. The kidneys filter the blood and excrete waste products and excess water in the form of urine.

Inside the kidneys, the renal arteries divide into smaller and smaller branches until they become capillaries in the glomeruli, the kidney's primary filtering units. Each kidney contains about one million glomeruli, which pass the filtered blood through long tubules. The glomeruli and the tubules make up the nephrons, the functioning units of the kidneys. The efficiency of the kidneys diminishes with age as the number of functional nephrons decreases.

The kidneys have many functions and responsibilities. In addition to filtering the blood, they regulate water and electrolyte levels, eliminate waste products and control the body's acid-base balance. When excess water is ingested, the kidneys excrete it. When water is lost (as a result of diarrhea or sweating), the kidneys conserve it. The digestion of proteins generates ammonia, a powerful toxin that the kidneys eliminate from the body in the urine. When blood and body fluids become too acidic or too alkaline, the kidneys alter the urine acidity to restore balance.

The kidneys also produce or release several hormones. These include erythropietin (stimulates the production of red blood cells), renin (increases the reabsorption of sodium), angiotensin (stimulates aldosterone production and increases sodium reabsorption) and aldosterone (affects salt and water balance).

Urine travels from the kidneys through ureters (tubes) and into the bladder. Outflow is controlled by valves that prevent urine from flowing back up the ureters.

The bladder serves as a temporary storage tank for urine. It has flexible walls, allowing it to expand as it fills. As the bladder reaches capacity, the person senses the need to urinate. When the bladder empties, its walls contract, forcing the urine out.

The urethra is a single tube that carries urine from the bladder out of the body through the genitals. The urethra in males is about 10 inches long; while in females it is only about an inch long. Consequently, women are much more susceptible to urinary tract infections than men.

Did You Know?

- The herb hydrangea was used by the Cherokee Indians as a remedy for kidney stones. Its diuretic, emetic and tonic properties make it an excellent choice for urinary concerns of all kinds.
- Gallup International found that 15 million Latin American people in the U.S. suffer from a hyperactive bladder and at least one-third of them are searching for help. Hyperactive bladder is one of the principal causes of incontinence.
- A randomized, double blind, placebo-controlled trial among elderly women found that dietary cranberry provides almost twice the reduction in urinary bacteria as a placebo.

Urinary System Analysis

If you have four or more of the following indications, you may consider nutritional aid to the urinary system.

- Body odor and/or bad breath
- Monthly female concerns
- Bags under eyes
- Skin/complexion problems
- Frequent urinary concerns
- Dry, damaged or dull hair
- Weak bones, teeth or cartilage

Urinary System Suggestions

- Drink 64 oz. of water daily
- Drink cranberry juice
- Eat lots of fruit and vegetables
- Practice personal hygiene

Urinary System Products

The following products are listed with ingredients only as not to sell any particular product line. These ingredients can be purchased at any store you wish. If you are interested in the actual combinations listed below, please contact JLS directly.

- **Urinary Combination** – This combination is a general tonic for the kidneys. This formula contains herbs that soothe urinary irritation and improve general kidney function, including uva ursi leaves, hydrangea root, parsley herb, dandelion root, plus seven other herbs and nutrients.
- **Marshmallow** – This mucilant soothes the kidneys when they are irritated or inflamed. Marshmallow contains volatile oils and tannins that are responsible for its diuretic actions. It is especially helpful in passing kidney stones.
- **Cranberry & Buchu Combination** – This combination of herbs has anti-inflammatory, diuretic and antiseptic properties. Scientific studies show that cranberry makes the urinary tract inhospitable to bacteria, lessening the risk of urinary tract infections. Buchu acts as a diuretic and improves digestion. This product works best in acidic urine conditions. Do not use in conjunction with uva ursi.
- **Echinacea & Golden Seal Combination** – Echinacea is a bitter herb with a long list of beneficial properties. It contains polysaccharides that stimulate the production of phagocytes (cells that engulf and consume foreign matter). Taken at the earliest sign of cold or infection, echinacea may help cut recovery time remarkably. Golden seal has infection-fighting abilities and anti-inflammatory properties.
- **Potassium Combination** – This combination nutritionally supports the body's enzyme system. A powerful source of trace minerals compatible with potassium utilization, this product contains 42 mg of elemental potassium per serving in an herbal base.
- **Kidney Activator Combination** – This herbal combination contains astringent herbs that have diuretic and toning properties. This formula includes juniper, parsley, uva ursi, dandelion and chamomile. Do not use this product when kidneys are inflamed.
- **Kidney and Bones Combination** – This combination contains 18 Chinese herbs that help strengthen the structural system by way of the urinary system. This product has analgesic, diuretic and anti-inflammatory properties and may help with urinary concerns and associated structural symptoms, including backache, osteoporosis and sciatica.
- **Horsetail** – This herb has diuretic properties and can help with some kidney conditions. It is particularly effective for healing when blood is present in the urine, or when children's bedwetting is caused by irritation.

KIDNEYS/BLADDER

KIDNEY WEAKNESS (COLD)

General Indications:

Copious, pale urine
Scant urine with fluid retention
Structural imbalances
Arthritis



Potassium Combination



Water Retention

Indications:

Swollen ankles, toes, fingers
Scanty urine
Puffy eyes
Swollen tongue



Kidney Activator Combination



Chronic Kidney Weakness*

Indications:

Copious, pale urine
Frequent lower back pain
Weak knees and ankles
Brittle bones
Spinal misalignment
Kidney stones



Kidney and Bones Combination
Horsetail
Hydrangea & magnesium to bowel tolerance

*A person would say, "I can feel it's going to rain. I can feel it in my bones".

KIDNEYS/BLADDER

URINARY INFECTION*

Indications:

Diagnosis of urinary infection
Prevention of urinary infection



Cranberry & Buchu Combination
Echinacea & Golden Seal Combination

*Consult a doctor for a diagnosis first.

KIDNEYS/BLADDER

IRRITATED/INFLAMED (HOT)*

General Indications:

Scant, dark urine
Burning urination
Hot feeling over kidneys
Puffiness/darkness under eyes
Urination produces standing foam
General symptoms of heat



Urinary Combination
Marshmallow

*Consult a doctor for a diagnosis first.

CERTIFIED ADVANCED HERBALISM COURSE – SESSION 20 – QUESTION & ANSWERS

NAME: _____

ADDRESS: _____

PHONE: _____

FAX: _____

E-MAIL: _____

Please be sure to fill out the information above, complete the test and e-mail or fax it back to us at 425-955-4639 (US) or at +353 1 647 5705 (EU) or e-mail it to us at joyful@best.com (US) or at answers@med-herbs.com (EU). We will grade your question & answer session and will let you know if we have any questions or concerns.

1. Each hour the kidneys filter 10 times the amount of blood in the body. T/F
2. Each kidney contains about one billion glomeruli. T/F
3. The kidneys serve as a temporary storage tank for urine. T/F
4. The efficiency of the kidneys diminishes with age. T/F
5. What are some indications that this system is weak and may need nutritional aid?
6. Who can I help? List five people who exhibit the above indications and who may benefit from nutritional aid to the urinary system.