Kidney & Urinary Health

The kidney and urinary tract make up the urinary / renal system that cleanses the blood and rids the body of excess water and waste in the form of urine. The urinary tract consists of two kidneys, two ureters (one from each kidney), tubes that drain urine from the kidneys into the bladder (a storage sac), and the urethra. Muscles help control the release of urine from the bladder.

The kidneys receive blood from the aorta, filter it, and send it back to the heart with the right balance of chemicals and fluid for use throughout the body. The urine created by the kidneys is moved out of the body via the urinary tract.

The kidneys control the quantity and quality of fluids within the body. They also produce hormones and vitamins that direct cell activities in many organs; the hormone renin, for example, helps control blood pressure. When the kidneys are not working properly, waste products and fluid can build up to dangerous levels, creating a life-threatening situation. Among the important substances the kidneys help to control are sodium, potassium, chloride, bicarbonate (HCO3-), pH, calcium, phosphorus, and magnesium.

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Kidney Function Metabolic

CREATININE, RAN... 178
(mg/dL)
Range: 20-275

CREATININE, RANDOM URINE
(mg/dL)

Blood Health

Blood is found in blood vessels that are made up of arteries, arterioles, capillaries, venules and veins, which take blood to and from every part of your body. Blood has several key functions that include transport, regulation & protection.

Blood transports oxygen from the lungs to the cells of the body and transports carbon dioxide from the body's cells to the lungs where it is breathed out. Blood carries nutrients, hormones and waste products around the body. Blood regulates the acid-alkali balance of the body and plays an important part in regulating the body temperature. By increasing the amount of blood flowing close to the skin, the blood helps the body to lose heat. Blood also provides protection through both white blood cells that attack and destroy invading bacteria and other pathogens and through platelets that provide clotting and protects the body from losing too much blood after an injury.

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Bone & Joint

Bone is the rigid, hard connective tissue that comprises the majority of the skeleton in humans. It is a living, growing tissue that turns over at a rate of about 10% a year. Bone markers are blood and urine tests that detect products of bone remodeling to help determine if the rate of bone resorption and/or formation is abnormally increased, suggesting a potential bone disorder. The markers can be used to help determine a person's risk of bone fracture and to monitor drug therapy for people receiving treatment for skeletal disorders including osteoporosis.

Several diseases and conditions can cause an imbalance between bone resorption and formation that include osteoporosis,

including age-related osteoporosis or secondary osteoporosis, which is bone loss due to an underlying condition. Bone loss may result from conditions such as rheumatoid arthritis, hyperparathyroidism, Cushing disease, chronic kidney disease, multiple myeloma, or from prolonged use of drugs such as anti-epileptics, glucocorticoids, or lithium.

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N TELOPEPTIDE (... 35
(nM BCE/mM creat)

Range: SEE NOTE

N TELOPEPTIDE (NTx)

(nM BCE/mM creat)

Result Comments

Premenopausal
Females: 4 - 64 nM BCE/mM creat

Results are primarily used for monitoring the response to therapy. A value within the premenopausal range does not rule out osteoporosis nor the need for therapy

Units of Measure: nM BCE/mM creat