

Naturopath in Brandon

Naturopath in Brandon - The organ of the body called the kidney has many functions and plays an essential role in the urinary system. The functions of the kidney comprises the maintaining of the acid-base balance, helping to serve the homeostatic functions of electrolyte regulation and maintaining the water and salt balance which helps in the blood pressure regulation. The kidneys serve the body by eliminating wastes and diverting them to the urinary bladder. The kidneys act basically as a natural filter of the blood.

When producing urine, the kidneys help excrete wastes like for example ammonium and urea from the body. They are also responsible for reabsorbing water, amino acids and glucose. The kidneys produce different hormones also such as: erythropoietin, calcitriol and the enzyme rennin.

The kidneys are found within the retro peritoneum at the back of the abdominal cavity. The kidneys obtain blood from the paired renal arteries and drain into the paired renal veins. Each kidney then excretes urine into a ureter. This is a tube-like paired structure which releases into the urinary bladder.

The study of Nephrology is the field in medicine which is concerned with kidney diseases. Kidney functioning is the study describe in renal physiology. Those with kidney disease often display characteristic clinical features like chronic kidney disease, renal cysts, urinary tract obstruction, nephritic syndromes, acute kidney injury and nephrolithiasis.

There are cancers of the kidney which currently exist, with renal cell carcinoma being the most common renal cancer. A lot of cysts, cancers and renal conditions can be managed with removal of the kidney, also referred to as nephrectomy. Kidney transplantation and kidney dialysis are other treatment alternatives if renal function, which is measured by glomerular filtration rate is always poor.

Kidney stones can be a nuisance and a pain even if they are not severely harmful. A sound wave treatment can break up the stones into smaller pieces so they can be passed through the urinary tract. Sharp pain within the lateral and median portions of the lower back is amongst the main symptoms.

Renal Physiology

The kidney is an important feature of homeostasis in the body. It is responsible for acid-base balances, regulating electrolyte concentrations, blood pressure regulation and extracellular fluid volume. The kidney works both independently and together with other organs in order to do these important jobs. The kidneys work directly with the endocrine system and numerous endocrine hormones coordinate these functions like for example: aldosterone, rennin, angiotensin II and others.

The majority of the functions which the kidney performs is done by fairly simple mechanisms of reabsorption, filtration and secretion, which happens within the kidney nephron. Filtration would typically happen in the renal corpuscle. This is the process wherein large proteins and cells are filtered from the blood to make an ultra-filtrate. This substance ultimately becomes urine. The kidney produces about 180 litres of filtrate a day. They reabsorb a large percentage of the filtrate and produce approximately just 2 litres of urine each and every day. Reabsorption is the term for the transportation of molecules from this ultra-filtrate into the blood. Conversely, secretion is the reverse method, wherein molecules are transported in the opposite direction, from the blood into the urine.

Waste Excretion

The kidneys are responsible for excreting numerous wastes from the body that are generated by metabolism. These nitrogenous wastes comprise urea from protein catabolism and uric acid from nucleic acid metabolism.