

The kidneys filter waste products from blood in the production of urine and play a key role in homeostasis. This article explored the structure and function of the kidneys and discussed the role of this organ in human physiology. The nephrons are central to the function of the kidneys and are crucial to the production of urine, electrolyte balance and blood volume. Renin production activates a cascade of chemical reactions that also influence the homeostasis of blood volume and pressure and electrolyte composition. Wider functions of the kidneys include homeostasis of red blood cell and platelet production and activation of vitamin D in the maintenance of bone density.