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Question

Write a short note on the characteristics (and components) of urine

Characteristics of urine include;

1. A yellow amber colour but it varies according to diet and concentration of the urine
2. Fresh urine has a mild smell but aged urine has a stronger odor similar to that of ammonia.
3. The pH of normal urine is in the range 4.6 – 8, with an average of around 6.0. Ph could vary according to the diet of a person. e.g. a high protein diets result in more acidic urine, but vegetarian diets generally result in more alkaline urine
4. The density of normal urine ranges from 0.001 to 0.035.
5. The turbidity of urine is clear, slightly cloudy, cloudy, opaque or flocculent. Normally, fresh urine is either clear or very slightly cloudy.

Components of urine

Urine is a byproduct of the body secreted by the kidneys through urination and excreted through the urethra. The normal chemical composition of urine is mainly water; it also includes nitrogenous molecules, such as urea, as well as creatinine and other metabolic waste components. Other components of urine in order of decreasing concentration include;

Urea 9.3 g/L.

Chloride 1.87 g/L.

Sodium 1.17 g/L.

Potassium 0.750 g/L.

Creatinine 0.670 g/L.

Other dissolved ions, inorganic and organic compounds (proteins, hormones, metabolites).