

CHAPTER 02

Acids, Bases and Salts

Importance of pH:

pH in digestive systems:

In stomach, hydrochloric acid is secreted, which is helpful in digestion of food. Too much of acid secretion in stomach causes pain and irritation. This happens when pH in stomach falls below certain level. To get rid of pain or irritation in such cases we use mild antacids like magnesium hydroxide $[Mg(OH)_2]$, which is also known as milk of magnesia to increase pH.

Change in pH can cause tooth decay:

Tooth enamel is made up of calcium hydroxyl apatite. When sugars present in mouth are fermented, it produces acid and causes pH to reduce. When pH of mouth goes below 5.5, it starts corrosion of the tooth enamel and the tooth starts decaying. The enamel calcium hydroxyl apatite is a protective layer. It can protect teeth only above certain pH, means above 5.5.

To prevent this use toothpaste, which is basic in nature and also clean the tooth after every food.

Self-defense by animals and plants:

Honeybee sting causes too much of pain and irritation. This is because; during its sting, methanoic acid is introduced into our body, which causes pain and irritation.

To get rid of the pain caused by honeybee sting or nettle leaves sting, rub the affected area with mild bases like baking soda, baking powder etc.

