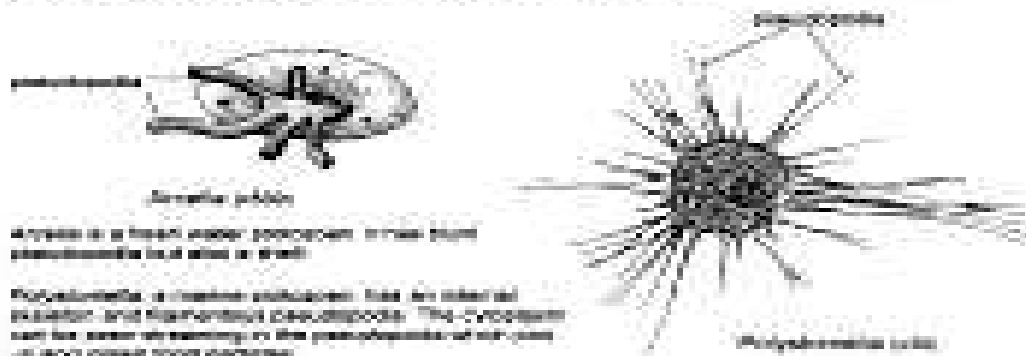


Protoczoa

Amoeba is classified as a protist or "single-celled animal". This is because it feeds like an animal by taking in solid food and digesting it internally.

Amoeba proteus is the "textbook" protist. It has the advantage that it is comparatively large and uncomplicated compared with other protists in the same group but is not a typical member of the group. Its pseudopodia are blunt, while most of the other representatives, many of which have internal or external skeletons. Two of these are illustrated here.



Amoeba proteus is a fresh water protist. It has blunt pseudopodia but also a shell.

Polysphincta is marine protist. It has an internal skeleton and filamentous pseudopodia. The cytoplasm can be seen streaming in the pseudopodia which are all thin rigid food particles.

Many amoebae live in the soil and some live in the human intestine. *Entamoeba coli* lives harmlessly in the colon, feeding on bacteria, but *Entamoeba histolytica* attacks the intestinal lining and causes a severe form of dysentery.

Cryptosporidium parvum is water that has not been treated to make it fit for drinking. *Cryptosporidium parvum cryptosporidiosis* is a kind of intestinal disease.

Multicellular animals carry out their living processes by means of specialized organs and tissues, the digestive system, nervous system, muscular system etc. The cells in these organs are specialized for a particular function. Muscle cells can contract, nerve cells conduct impulses, gland cells secrete enzymes or hormones. These specialized cells cannot survive on their own. They need other cells or systems to supply them with food and oxygen and to remove their waste products.

The single-celled animals can carry out all these vital functions. They grow, feed, breathe, reproduce, excrete all within the cell though certain parts of the cytoplasm may be specialized to carry out special functions, the contractile vacuole for example.