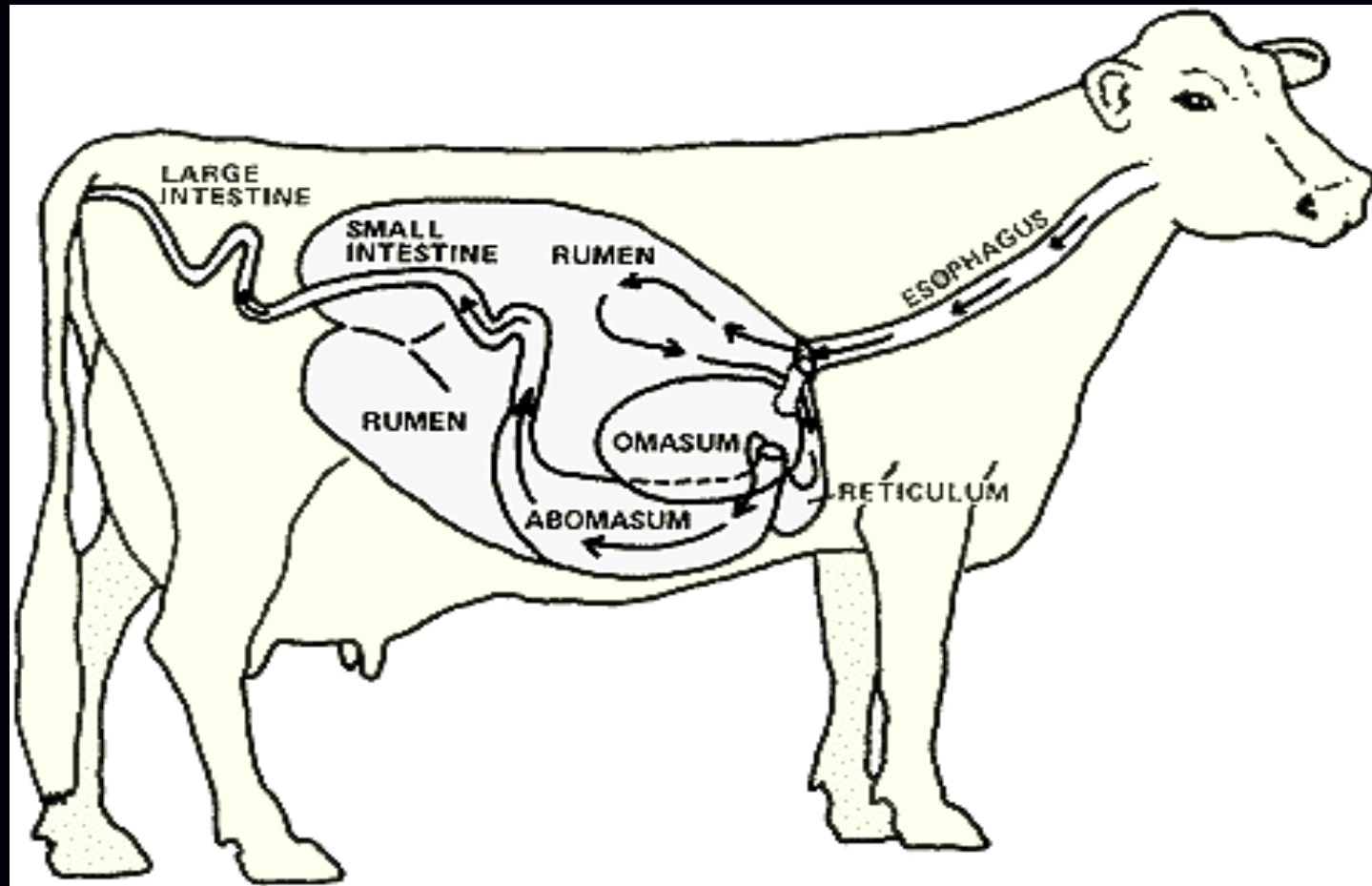




The Rumen



The Rumen

The **rumen**, also known as the **fermentation vat** or **paunch** forms the larger part of the first chamber in the digestive tract of ruminant animals.

Ruminants include cattle, goats, sheep, camels, bison, deer, and antelope. It serves as the primary site for microbial fermentation of ingested feed.

The Rumen

Where the food is mixed with saliva and separates into layers of solid and liquid material. Solids clump together to form the cud. The cud is then regurgitated, chewed slowly to completely mix it with saliva and to break down the particle size. Plant fiber, especially cellulose, is primarily broken down by microbes (bacteria, protozoa, and fungi) so it can be utilized for nutrition. Protein and non-structural carbohydrates are also fermented.

The Rumen

The Law of Moses allowed only the eating of animals that had split hooves and swallowed their food multiple times. This distinction between clean and unclean animals approximately falls according to whether the animal ruminates. The close relation to rumination is apparent in many English translations of the Bible, which use the word *cud* in an expanded sense to indicate food that is re-chewed through rumination, and again swallowed.