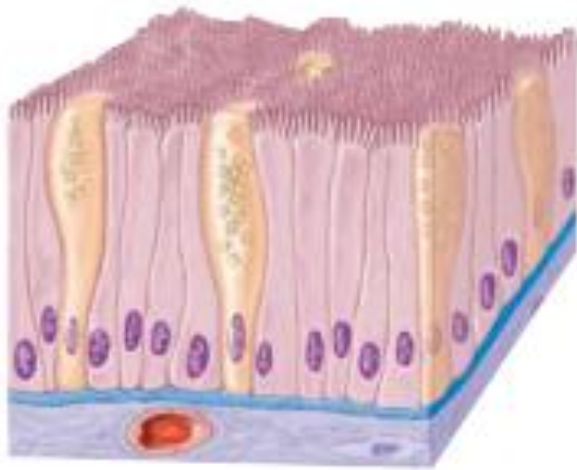


Tissue Level of Organization

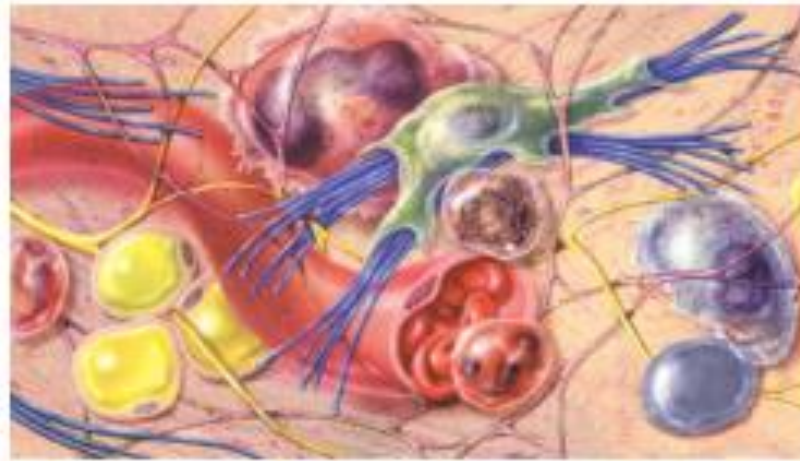
Cells usually work together in groups called tissues. Tissues may be hard, semisolid, or even liquid in their consistency, a range exemplified by bone, fat, and blood.

So, “A tissue is a group of cells that usually have a common origin in an embryo and function together to carry out specialized activities.” **Histology** (histo- = tissue; -logy = study of) is the science that deals with the study of tissues.

Body tissues can be classified into four basic types according to their structure and function



(a) Epithelial tissue



(b) Connective tissue



(c) Muscular tissue



(d) Nervous tissue

1. **Epithelial tissue** covers body surfaces and lines hollow organs, body cavities, and ducts; it also forms glands. This tissue allows the body to interact with both its internal and external environments.
2. **Connective tissue** protects and supports the body and its organs. Various types of connective tissues bind organs together, store energy reserves as fat, and help provide the body with immunity to disease-causing organisms.
3. **Muscular tissue** is composed of cells specialized for contraction and generation of force. In the process, muscular tissue generates heat that warms the body.
4. **Nervous tissue** detects changes in a variety of conditions inside and outside the body and responds by generating electrical signals called nerve action potentials (nerve impulses) that activate muscular contractions and glandular secretions