

The human body is composed of atoms that are arranged in a hierarchy of increasing complexity.

- atoms
- molecules
- organelles
- cells
- tissues
- organs
- systems
- human body

A muscle is an **organ** surrounded by connective tissue and composed of several **tissues**, such as bundles of muscle cells and nervous tissue. The muscle **cells** in the bundles are called muscle **fibres** because they are very unlike “typical” cells. They are up to 20 cm in length, and they contain many nuclei. The **organelles** within the cells (fibres) are also given unique names. For example, the cell membrane is called the sarcolemma, the endoplasmic reticulum is the sarcoplasmic reticulum and the cytoplasm is known as sarcoplasm.

### Hierarchy of Muscle Structure

