

introduction

The body's more than 600 muscles account for 40 per cent of its weight in men, 30 per cent in women. Muscles comprise bundles of elastic fibers that contract to produce movement when stimulated by nerve impulses. There are three types of muscle: cardiac, smooth, and skeletal.

Cardiac muscle operates the heart.

Smooth muscle (alias unstriated or involuntary muscle) works automatically, e.g. operating the stomach, intestines, and blood vessels.

Skeletal muscle (striped or voluntary muscle) operates the bony skeleton and is under our conscious control. Skeletal-muscle fibers are long, slim fibers, bound in bundles by fasciae of connective tissue, and are attached to bones, cartilages, ligaments, skin, or other muscles directly or via cord-like tendons (sinews) or aponeuroses (fibrous sheets). They function as prime movers, antagonists opposing prime movers, fixation muscles (steading one part as a base for others), or synergists working with prime movers to prevent unwanted movements. Skeletal muscles may be grouped as follows:

Head muscles operating scalp, eyelids, nose, mouth, and jaws;

Antetolateral neck muscles including cervical, hyoid, and anterior and lateral vertebral muscles;

Trunk muscles including muscles of the chest, abdomen, back, pelvis, and perineum (ie those of the anal and urogenital regions);

Upper limb muscles including muscles of the shoulder, upper arm, forearm, and hand;

Lower limb muscles including those operating the thigh, leg, and foot.