

COMPARISON BETWEEN DIFFERENT TYPES OF MUSCLES

TYPE OF MUSCLE	Skeletal	Cardiac	Smooth
STRUCTURE	striated, long, cylindrical and multinucleated	single nucleus, branching networks, striated	Not striated, tapered at the ends
FUNCTION	Movement of bones	Pumping blood	Peristaltic waves(food digestion)
VOLUNTARY INVOLUNTARY	Voluntary	Involuntary	Involuntary
LOCATION	Attached to bones	Wall of Heart	Hollow organs (esophagus), respiratory tract
PRESENCE OF PACEMAKER	No	Yes	Yes
CALCIUM REGULATION	Ca ²⁺ released into cytoplasm from sarcoplasmic reticulum	Ca ²⁺ enters cytoplasm from sarcoplasmic reticulum and extracellular fluid	Ca ²⁺ enters cytoplasm from sarcoplasmic reticulum and extracellular fluid and mitochondria
RESPIRATION	Aerobic/Anaerobic	Aerobic	Aerobic
CONTRACTION AND SPEED	Contracts and relaxes rapidly, slow to fast	Slow	Contracts and relaxes slowly