

# Types of muscles

Classification by the *Muscle tissue*

## Classification of muscles

The body contains three types of muscle tissue:

- (a) skeletal muscle – musculus scelelalis/striatus /voluntaries, sval příčně pruhovaný
- (b) smooth muscle – musculus levis/involuntarius, sval hladký
- (c) cardiac muscle – musculus cardiacus, svall srdeční

(a) **Skeletal muscle** or "**voluntary muscle**" (volní inervace) is anchored by **tendons** (or by **aponeuroses** at a few places) to **bone** and is used to effect **skeletal** movement such as **locomotion** and in maintaining posture. Though this postural control is generally maintained as an unconscious reflex, the muscles responsible react to conscious control like non-postural muscles. An average adult male is made up of 42% of skeletal muscle and an average adult female is made up of 36% (as a percentage of body mass).<sup>[5]</sup>

( b )**Smooth muscle** or "**involuntary muscle**" (mimovolní inervace) is found within the walls of organs and structures such as the **esophagus**, **stomach**, **intestines**, **bronchi**, **uterus**, **urethra**, **bladder**, **blood vessels**, and the **arrector pili** in the skin (in which it controls erection of body hair). Unlike skeletal muscle, smooth muscle is not under conscious control.

( c ) **Cardiac muscle** (myocardium), is also an "**involuntary muscle**" (mimovolní inervace) but is more akin in structure to skeletal muscle, and is found only in the heart.

## Functional roles of muscles:

Synergist – Help provide movement for the prime mover. Synergisté – kdy více svalů spolupracuje na jednom pohybu.

Antagonist – Opposite of the prime mover. Antagonisté – kdy svaly působí opačným pohybem jeden na druhý.

Agonist – Primary mover applying force during a movement. Agonisté – svaly pro pohyb určitého směru působící jako iniciátoři a vykonavatelé.

## Further classification by function

- Ohýbač – m.flexor /'flek.sə/
- Natahovač – m.extensor /ɪk'stent.sər/
- Přitahovač – m.adductor /ə'dʌk.tə/
- Odtahovač – m.abductor /æb'dʌk.tə/
- Svěrač – m.sphincter /'sfɪŋk.tə/
- Rozvěrač/ rozšiřovač – m.dilatator /daɪlə'teɪtə/
- Zvedač – m.levator /lə'veɪ.tə/
- Stahovač – m. depressor /dɪ'pres.ə/
- Otáčeč – m. rotator /'rou'teɪ.tə/
- Napínač – m. tensor /'ten.sə/

<https://en.wikipedia.org/wiki/Muscle>

<https://dictionary.cambridge.org/dictionary/english>