

## Effects of exercise on the body systems (1.1e)

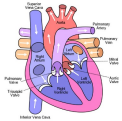
### Effects of exercise (1.1e): short term

#### Muscular System



- Muscle temperature increases.
- Lactic acid production.
- Muscle pain and fatigue.

#### Cardiovascular System



- Heart rate increases.
- Stroke volume increases.
- Cardiac output increases
- Redistribution of blood flow during exercise.
- Oxygen to the working muscles.

#### Respiratory System



- Tidal volume increases.
- Respiratory rate increases.
- Minute ventilation increases
- Oxygen debt occurs.

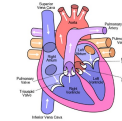
### Effects of exercise (1.1d): Long term

#### Muscular System



- Hypertrophy of muscle
- Muscular strength
- Muscular Endurance
- Resistance to fatigue

#### Cardiovascular System



- Hypertrophy of the heart
- Resting heart rate / stroke volume increase
- Cardiac output increases
- Capillarisation

#### Respiratory System



- Rate of recovery increases.
- Aerobic capacity.
- Respiratory muscles
- Tidal volume and minute ventilation increase.