

Class X - Health and Physical Education

**Effects of Physical Activities on Human Body**

# CBSE NOTES

## **Effects of Physical Activities on Human Body - Quick Look Revision Guide**

*Your 1-page summary of the most exam-relevant takeaways from Health and Physical Education.*



Visit [Edzy.ai](https://edzy.ai) for more resources

Understand concepts, remember formulas, and score higher in every subject and class.

# Key Points

---

## 1. Define organ systems with an example.

Organ systems are groups of organs that work together to perform complex functions. For example, the digestive system breaks down food, while the circulatory system transports nutrients.

## 2. Explain the role of skeletal and muscular systems in movement.

The skeletal system provides structure, and muscles attached to bones via tendons contract to cause movement, enabling activities like walking and playing sports.

## 3. Describe the types of muscles.

There are three types: voluntary (limbs), involuntary (digestive canal), and cardiac (heart), each with unique functions and control mechanisms.

## 4. State the energy equation for muscle contraction.

Digested food (Glucose) + Oxygen → Carbon dioxide + Water + ATP. ATP is the energy currency used by muscles for contraction.

## 5. Explain the mechanism of breathing.

Inhalation involves diaphragm and rib muscles contracting to increase thoracic volume, drawing air in. Exhalation is their relaxation, pushing air out.

## 6. Define vital capacity and its components.

Vital capacity is the maximum air exhaled after a deep inhale (3500-4500cc). It includes tidal volume, inspiratory, and expiratory reserve volumes.

## **7. Describe double circulation in the heart.**

Blood passes through the heart twice per cycle: systemic (body-heart) and pulmonary (heart-lungs) circulations, ensuring efficient oxygen delivery.

## **8. List benefits of physical activity on muscles.**

Increases muscle size, strength, and efficiency; improves blood supply; delays fatigue; and enhances posture and body shape.

## **9. Explain oxygen debt and recovery.**

During intense exercise, oxygen demand exceeds supply, creating a debt. Post-exercise, extra oxygen is consumed to recover, clearing lactic acid.

## **10. Impact of exercise on the respiratory system.**

Increases lung size, activates alveoli, improves lung power, and enhances oxygen uptake efficiency, benefiting overall health.

## **11. Effects of exercise on the circulatory system.**

Strengthens heart muscles, increases stroke volume, reduces heart rate at rest, and improves capillary and blood cell count.

## **12. Define LDL and HDL and their relation to exercise.**

LDL ('bad' cholesterol) can clog arteries; HDL ('good') removes cholesterol. Exercise increases HDL, reducing heart disease risk.

## **13. Role of yoga in improving health.**

Yoga enhances muscle strength, lung capacity, and circulation through asanas and pranayama, promoting physical and mental well-being.

#### **14. Explain the significance of Suryanamaskar.**

Suryanamaskar is a comprehensive yoga sequence that improves blood circulation, strengthens lungs, and enhances overall body flexibility.

#### **15. Describe the concept of muscle tone.**

Muscle tone is the slight continuous contraction in muscles, maintained by nerve signals, ensuring readiness for movement and posture.

#### **16. How does exercise prevent osteoporosis?**

Weight-bearing exercises stimulate bone formation, increasing density and strength, thus preventing bone degeneration like osteoporosis.

#### **17. Benefits of regular physical activity on heart rate.**

Regular exercise makes the heart more efficient, allowing it to pump more blood per beat, thus lowering resting heart rate.

#### **18. Explain the increase in muscle proteins due to exercise.**

Physical activity stimulates protein synthesis in muscles, increasing actin and myosin, which are essential for muscle contraction and strength.

#### **19. How does exercise improve reaction time?**

Regular physical activity enhances nerve-muscle communication, speeding up the response to stimuli and improving overall reaction time.

#### **20. Describe the effect of yoga on the respiratory system.**

Yoga practices like pranayama increase lung capacity, improve alveoli efficiency, and strengthen respiratory muscles, enhancing oxygen uptake.



# Edzy makes learning fun and easy!

---

## For Students

- Use flashcards to test yourself before sleeping
- Break big topics into small chunks to master them easily
- Take short breaks to recharge your focus

## For Teachers

- Motivate students with game-like rewards
- Use progress data to personalize help
- Track student growth with auto-generated insights

### Speed Tip:

Use bullet points when writing long answers to save time.

**Good Luck!**

Your hard work will pay off - believe in yourself!



Visit [Edzy.ai](https://edzy.ai) for more resources

Made with ❤️ for School Students