

PHYSIOLOGY & SPORTS

GENDER DIFFERENCES

Physical / Anatomical

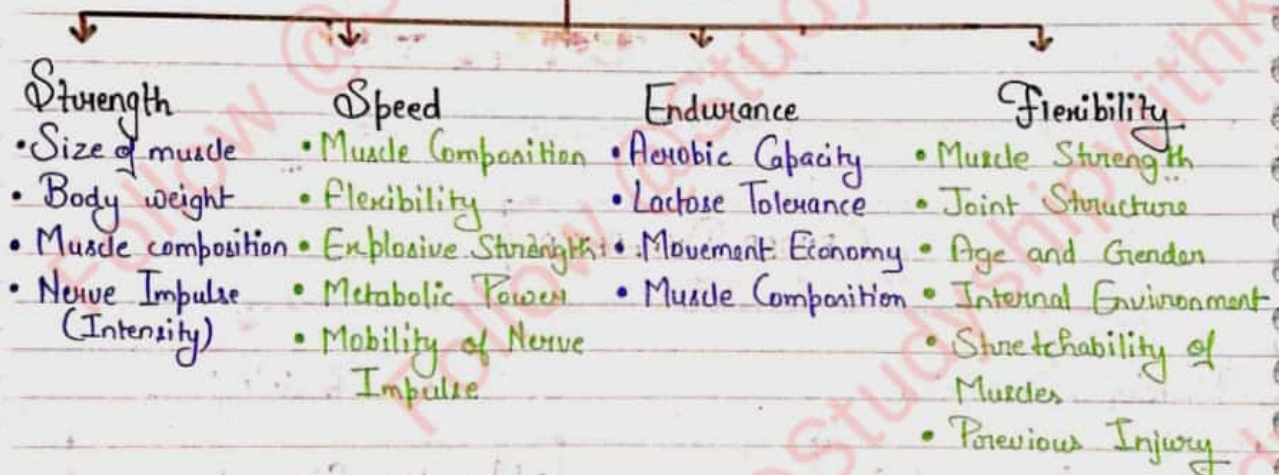
- Difference in shape & size
- Vertebrae, Legs and knees
- Centre of Gravity
- Bone of shoulders
- Pelvic region
- Adiposity

Physiological

- Muscular Strength
- Blood Circulation
- Respiratory Organs
- Blood Pressure & Stroke Volume

Physiological Factors Determining the Composition Of Physical Fitness

Physiological Factors



EFFECTS OF EXERCISE

1. On Cardiovascular System

(Short-term)

- Increase in heart rate
- Increase in Stroke Volume
- Increase in Cardiac Output
- Increase in Blood flow
- Increase in Blood Pressure

(long-term)

- Increase in size of heart
- Decrease in resting heart rate
- Stroke Volume increases at rest
- Increase in Cardiac Output
- Increase in Blood flow
- Decrease in Blood Pressure
- Increase in Blood Volume
- Quicker recovery rate
- Reduced Risk of Heart Disease

2. On Respiratory System

1. Strong will power
2. Increase in tidal air Capacity
3. Decrease in rate of respiration
4. Strengthen Diaphragm and muscles
5. Avoid Second wind
6. Unused Alveoli become active
7. Increase in endurance
8. Increase in residual air volume
9. Increased size of lungs and chest
10. Prevention from disease
11. Increased vital air capacity

3. On Muscular System

1. Changed Shape and size of muscles
2. Formation of more capillaries
3. Muscles remain in same position
4. Control Extra Fat
5. Change in Connective Tissue
6. Efficiency in movement of muscles
7. Delays Fatigue
8. Increased Food Storage
9. Exercise and its health Benefits
10. Non-functioning fibres become active
11. Correct Body Posture
12. Improves reaction time

* There are various changes that occur in our body during ageing. Most of the organs seem to lose physiological functions at about 1% a year beginning around 30 years of age.

