



FAQs

Q1. Define free exercise and its classification.

Ans: Free exercises are those which are performed by the patient's own muscular efforts without the assistance or resistance of any external force, other than that of gravity.

Free exercises may be classified according to the extent of the area involved, they may be

a) Localized.

b) General.

Q2. What are the effects of free exercise?

Ans: 1) Relaxation

2) Joint mobility: The normal range of joint movement is maintained by exercises performed in full range.

3) Muscles power and tone: The power and endurance of the working muscles are maintained or increased in response to the tension created.

4) Neuromuscular coordination: Coordination is improved by the repetition of an exercise.

6) Circulatory and respiratory cooperation.

5) Confidence: The achievement of coordinated and efficient movement assures the patient of his ability to maintain subjective control of his body.

Q3. Define assisted exercise.

Ans: When the force exerted on one of the body levers by muscular action is insufficient for the production or control of movement, an external force may be added, these forms of exercises are termed as assisted exercise.

Q4. Explain the principle of resisted exercise.

Ans: The principle of resistance is that an external force may be applied to the body lever to oppose the force of muscular contraction. The tension is increased within the muscles by the opposing force and the muscles respond by an increase in their power and hypertrophy.

Q5. What are the factors which contribute to the development of muscular efficiency?

Ans: There are five factors which contribute to the development of muscular efficiency i.e. power, endurance, volume, speed of contraction and coordination.

Q6. What are the effects and uses of resisted exercise?

Ans: Effect and uses of resisted exercises are:

- 1) Muscle power can only be maintained or increased by contraction, and in this exercises the working muscles are strengthened and hypertrophied in response to tension created in them by the resistance. Their power and endurance is increased.
- 2) The blood flow to the working muscles is increased in proportion to the amount of work they are called upon to do thus providing the materials for repair and hypertrophy.

Q7. Define passive movement.

Ans: The movements which are produced by an external force during muscular inactivity or when muscular activity is voluntarily reduced as much as possible to permit movement.

Q8. Explain the principles of relaxed passive movement.

Ans: Principles of relaxed passive exercises:

1. Relaxation
2. Fixation
3. Support
4. Traction
5. Range
6. Speed and duration

Q9. Explain the effects and uses of relaxed passive movement.

Ans: Effects and uses of relaxed passive movements are:

- 1) Adhesion formation is prevented and the present free range of movement maintained.
- 2) When active movement is impossible, because of muscular inefficiency, these movements may help to preserve the memory of movement patterns by stimulating the receptors of kinesthetic sense.
- 3) When full-range active movement is impossible the extensibility of muscles is maintained, and adaptive shortening prevented
- 4) The venous and lymphatic return may be assisted slightly by mechanical pressure and by stretching of the thin-walled vessels which pass across the joint moved.
- 5) The rhythm of continued passive movements can have a soothing effect and inducing further relaxation and sleep

Q10. What are the characteristics of free exercise?

Ans: The characters of free exercise are:

- a) Subjective
- b) Objective