

Effect of Exercise on **Neuromuscular System**

1. Strength and endurance-

- (i) Appropriate exercise increases the strength and endurance of skeletal muscles. Increase in muscular strength are associated with increase in the muscle mass and increase in the muscular endurance are associated with improve blood flow to the working muscle. These are achieved by resistance exercise. Any exercise that causes the muscle to increase its tension provides an appropriate strength training stimulus.

(ii) Resistance can be applied to a muscle group by lifting heavy weights or by using special strength training machines and devices.

(iii) Strength and endurance training is done by performing several repetitions of an exercise. It is recommended that exercises select resistance that is approximately 65% of the maximum they can lift for that particular exercise. This load should allow the completion of 12 repetitions of that exercise in 24-30 seconds. Each group of 8-12 repetitions is called a set and 2 or 3 sets of a given exercise are recommended for each training session.

2. Flexibility- Muscles and tendons can be stretched to improve flexibility and to improve Range of motion. The muscles and other connective tissues around a joint must be stretched. Stretching technique is a slow increase in range of motion. The stretch should be performed gradually and the body should be held for 10-20 seconds in the stretched position and then gradually return to relaxed posture. By stretching each muscle group in this fashion as a part of the strengthening program, the patient will maintain good flexibility. Bouncing or exploding stretching movement should be avoided as they can result in muscle or tendon tears.