

The background of the slide features a pattern of stylized autumn leaves in various shades of yellow, orange, and gold, set against a darker orange gradient. The leaves are scattered across the frame, creating a textured, seasonal feel.

Exercise Needs



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All systems in the body function more efficiently when they are active. If muscles are immobilized the process of degeneration begins immediately. The strength and tone of immobilized muscles decrease about 5 per cent per day in the absence of any contraction of the muscle.

Thus degeneration of muscles occur very slow process that may take months or years to accomplish. Thus prevention is mush better than cure.

Importance of exercise:


Exercise increases the efficiency of functioning of all body processes, i.e. physiological, psychological and social.

1) Psychological and social benefits:

- 1. Promote relaxation .**
- 2. Improves appearance, body image & self- concept.**
- 3. Reduces stress.**
- 4. Fosters relationships if exercise done in groups.**
- 5. Increases well-being.**

2) Physiological benefits of exercise:

- 1. Increase muscular strength, tone and size.**
- 2. Increase efficiency of the heart.**
- 3. Increase work tolerance.**
- 4. Increase pulmonary efficiency.**
- 5. Improve digestion.**

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- The background of the slide features a pattern of stylized, overlapping leaves in various shades of orange and yellow, creating a warm, autumnal aesthetic. The leaves are scattered across the entire frame, with some appearing more prominent than others.
- 6. Better mental alertness.**
 - 7. Improve sleep patterns.**
 - 8. Decrease blood pressure.**
 - 9. Decrease deposits of fatty tissues.**
 - 10. Decrease cholesterol levels in blood.**

3) Psychological and social benefits:

- 1. Promote relaxation**
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Motor functioning:

Systems involved in body movements are:

- 1. The skeletal system.**
- 2. The muscular system.**
- 3. The nervous system.**
- 4. The circulatory system which provides nourishment to the tissues of these systems.**

Types of joints:

The various types of movement are done by the joints, which connect one bone to another, each joint make a certain type of movement in certain range called range of joint motion (R.O.M).

The body has six types of joints:

Ball and socket: is poly-axial joint three degree of freedom of motion. It permits the following movements: flexion, extension, abduction, adduction, circumduction and rotation.

a) Hinge: Is a uniaxial joint i.e. one degree of freedom of motion. It permits flexion and extension.

Examples: Knee and elbow, ankle, interphalangeal joints in fingers and toes.

b) Condyloid: Is biaxial (one degree of freedom of motion). It permits flexion, extension, abduction and adduction.

A combination of all these movements is called circumduction.

Example: Wrist joint, Metatarsophalangeal joint.

**Pivot: Is a uniaxial joint. Permits
Supination and pronation movements.**

Example: Radioulnar joint.

d) Saddle joint: Biaxial joint. Permits flexion, extension, abduction adduction, circumduction and opposition.

Example: Thumb.

e) **Gliding**: Is a plan joint permits gliding movements.

Example: Between carpal bones and between sacrum and ilium (sacra iliac joint).

Types of Therapeutic Exercises:

1. Passive:

An exercise carried out by the therapist or the nurse without assistance from the patient

2. Active assistance:

An exercise carried out by the patient with the assistance of the therapist or the nurse.

3. Action:

An exercise accomplished by the patient without assistance activities include turning from side to side and from back to abdomen and moving up and down in bed.

4. Resistive:

An action carried out by the patient working against resistance produced by either manual or mechanical means.

4. Isometric or muscle setting:

Alternately contracting and relaxing a muscle while keeping the part in a fixed position this exercise is performed by the patient.

Types of isometric exercises:

Quadriceps setting: tightening of the quadriceps muscle by pushing back of knee against bed or attempting to raise heel off bed.

1. Gluteal setting: pinching the buttocks together.

2. Dorsi-flexion of foot: pulling the foot up at the ankle.

3. **Abdominal retraction: tightening the abdominal muscle.**
 4. **Triceps setting: push lateral aspect of hand against bed.**
 5. **Biceps setting: tighten biceps muscle with arm both pronated and supinated.**
 6. **Deltoid setting: arm out to side. Patient hold elbow.**
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Thank You