

Care of weak
or
Paralysed Muscles
&
Physiotherapy

Care of Paralysed Muscles:

- Prevent contractures/stiffness of joints
- Reduce existing contracture/stiffness of joints.
- Strengthen weak muscles.

Care of Paralysed Muscles:

- Exercises
- Oil massage
- Wax bath
- Hydrotherapy
- Splinting
- Electrical stimulation of muscles
- Short wave diathermy
- Ultrasonics

Physiotherapy helps:

- Restores normal tone & preserving physiological properties of paralysed muscles
- Prevents muscle atrophy & over stretching of paralysed muscles
- Prevents contractures & keeps joints mobile
- Improves range of movement
- Maintains & improves blood circulation
- Makes skin soft and supple

Massage :

- Stimulates muscles
- Increases local circulation
- Makes skin soft and supple
- Helps in reducing stiffness
- Prevents contractures.

Massage: Done for few minutes before exercise or applying splint.

Wax bath/ Hydrotherapy :

- Increases circulation by application of heat
- Softens skin
- Loosens and relaxes soft tissue
- Reduces contractures

C.I: Allergic to wax / heat

Dermatitis, blisters, wounds or ulcers

Hands dipped in molten wax kept at 120 F (49 C) for 3 min

Wax covered hands are wrapped grease proof paper and then woollen blanket for 20 minutes

Electrical stimulation/ Ultrasonic therapy :

- Prevents muscle atrophy.

Splints :

Indications:

- Flexion contracture of proximal interphalangeal joint of fingers & thumb
- Web contracture of thumb
- Paralysis of short muscles of thumb
- Open wound at finger flexion creases
- Foot ulcers/ foot drop
- Wrist drop

Type of splints: Static splints

- No active / passive movement of joint
- Helps immobilize a joint: Rest to nerve
- Stimulate nerve healing during reaction.
- Used at night: Prevents contractures or
Reduces contrc. gradually

Precautions : Not to stretch too much to avoid
Over stretching of muscles &
Splitting of contracted skin

Types of splints: Dynamic splints

- Allows active & passive movement of the joints.
- Use: Active exercise of weak muscle to regain strength.
- Has elasticity
- Works on the principle of recoil and
- needs correct fitting to avoid friction injuries

Exercise:

- Prevent contractures/stiffness of joints
- Reduce existing contracture/stiffness of jts.
- Strengthen weak muscles.

Precautions: Avoid/ Stop exercise

If hand has wounds or cracks.

Weak skin gives way to stretch during exercise

Exercise: Two types

1. Active :

Patient uses his weak muscles to do the exercise.

- prevent contracture and
- Strengthen the weak muscle.

2. Passive :

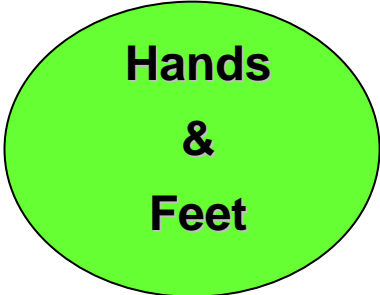
Patient is helped to move the paralysed part passively.

- Prevent contracture but
- **Cannot** strengthen the weak muscle.

Paralysis

Aims to

- Prevent setting in of contracture
- Decrease existing contracture
- Strengthen weak muscle



Exercise

Active

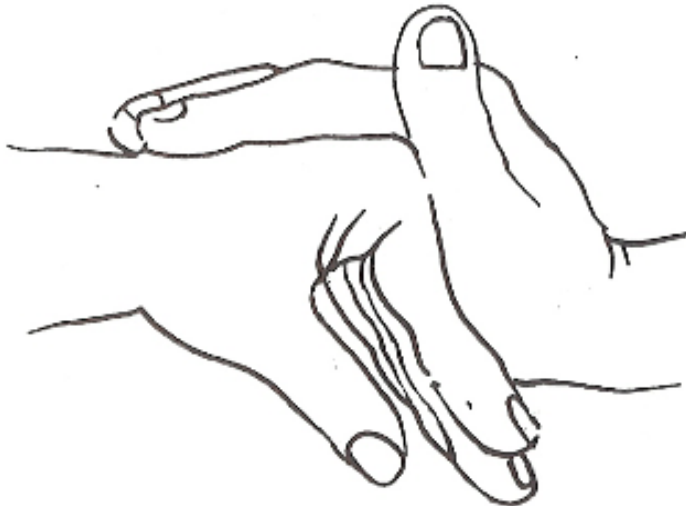
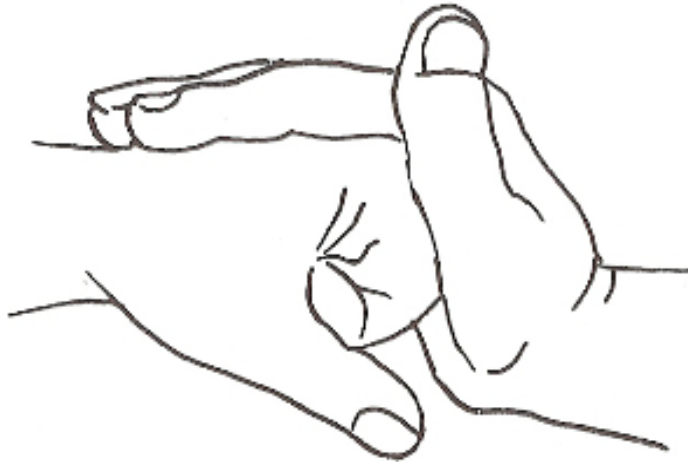
Passive

Direct use of weak muscle

Movement of paralysed part using help

Exercises for Paralysis / Weakness in Hands & Feet

Active Exercises for Ulnar nerve



Active :

Straighten fingers in the weak hand repeatedly .

Keeping the wrist straight, move the joint between the hand and fingers repeatedly .



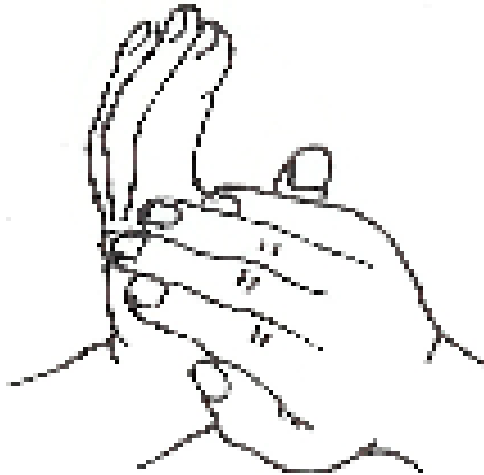
Passive Exercise for Ulnar nerve



Passive : Straighten the clawed fingers with the other hand repeatedly .



Active Exercise for Median nerve



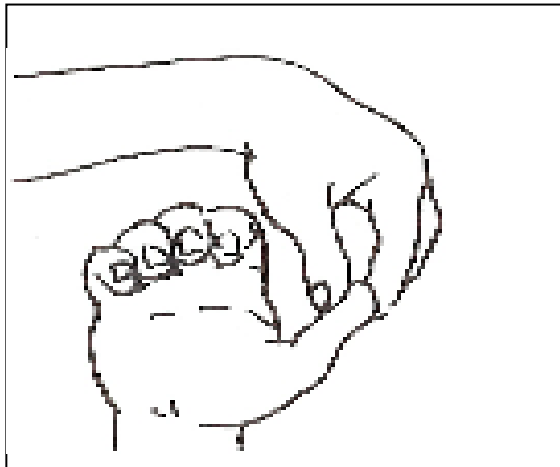
Active : Straighten the weak thumb , and hold it straight for a few seconds , using the other hand to hold it straight .

Passive Exercise for Median nerve



Passive :

**Straighten the
weak thumb**



**using the other
hand , for a few
seconds .**



Exercise for Lateral Popliteal nerve

(Foot Drop)

Active : Bend the foot upwards , and hold it steady for a few
seconds.

Passive : (given below) Stand near a wall , with the arms stretched out , and hands resting on the wall.

Then bend the elbows and leans forward for a few seconds.

