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HEALTH CENTRE

## **Passive Range of Motion Exercises A Guide for Home Care**

## **HOME EXERCISE PROGRAM PASSIVE RANGE OF MOTION**

### **GENERAL INSTRUCTIONS:**

Do only those exercises recommended by a therapist.

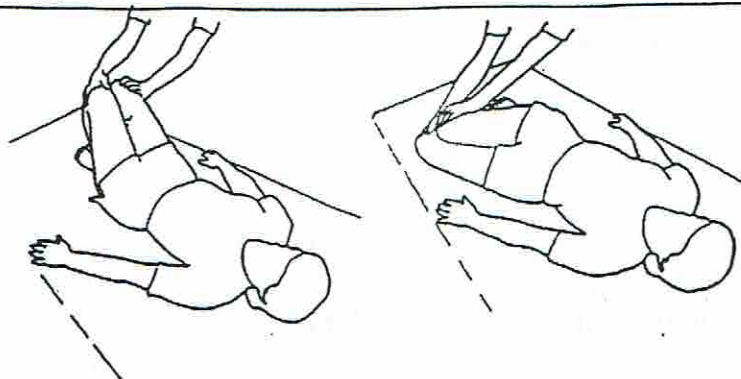
### **FOR ALL PATIENTS:**

1. Move only to the point of resistance. Do not force movement.
2. Support joints to prevent excessive motion. Move in a straight line from starting position to ending position.
3. Move slowly, avoiding rapid or abrupt motions.

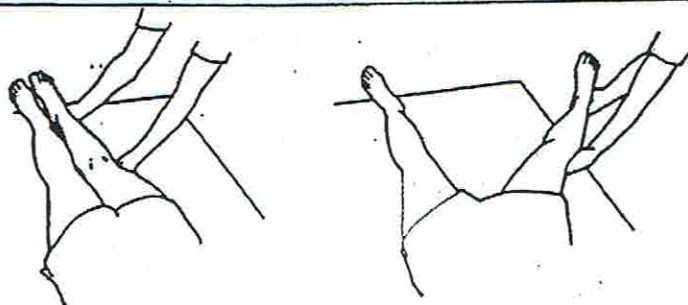
### **FOR PATIENTS WITH INCREASED TONE OR SPASTICITY:**

1. Avoid putting pressure on the ball of the foot or palm of the hand. Pressure on these areas will produce abnormal, reflexive movement.
2. Move slowly and consistently. Do not start or stop mid-range. If the muscle seems especially tight, slowly pull against it. Gentle continuous stretching on a muscle will relax it.
3. If the initial movement causes clonus (a rapid movement at the joint, such as "toe tapping"), or if the movement is difficult to initiate, slightly bend the next joint. For example, to help relax the ankle muscle, bend the knee; to relax the wrist, bend the elbow.

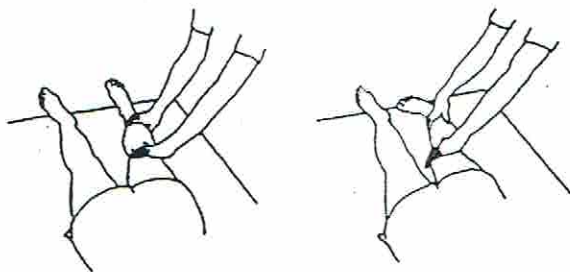
1. Bend the patient's legs at the hips and knees, and place the feet flat on the bed or supporting surface. Grasp the patient's knees and slowly move them from side to side, going only to the point of resistance.



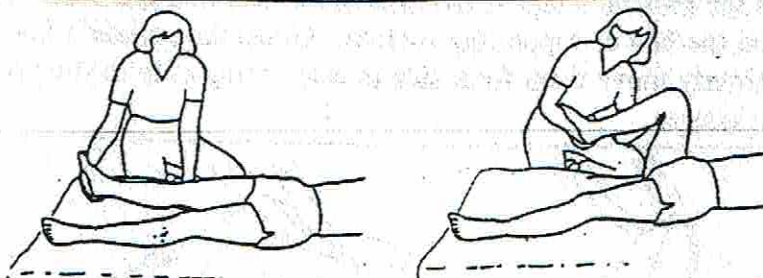
2. Place one hand under the patient's knee, and the other under the patient's heel. Keeping the patient's leg straight, pull it away from the midline of the body until you feel resistance. Move the patient's leg back to midline.



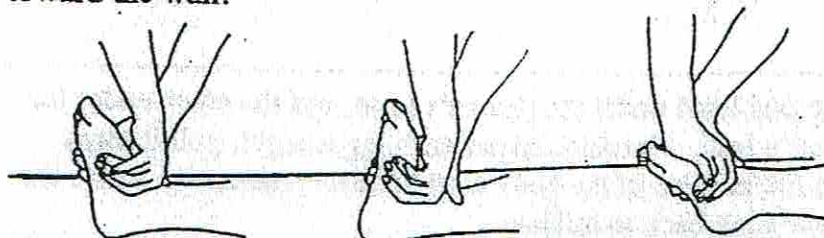
3. With the patient's leg straight, place one of your hands above the kneecap, and the other hand approximately four inches above the patient's ankle. Rotate the patient's leg so the toes are pointing in toward the other leg. Then rotate the leg so the toes are pointing out, away from the body.



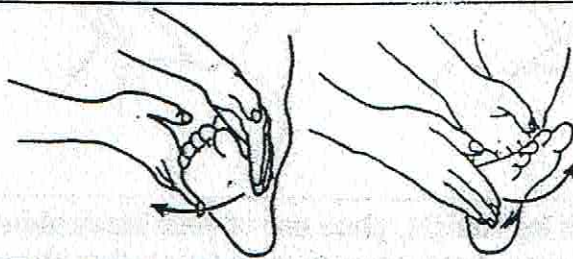
4. Place one hand under the patient's knee and the other under the patient's heel. Move the whole leg up toward the patient's chest, bending it at the hip and knee. Return the patient's leg to the straight position.



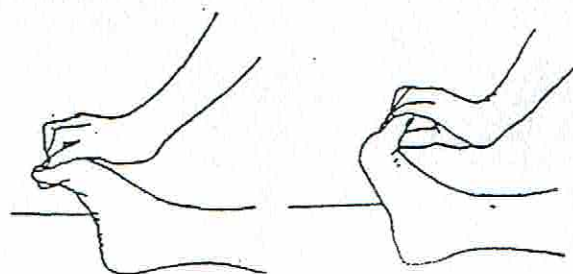
5. Grasp both edges of the patient's foot, below the ball of the foot. Pull the patient's foot back so the toes are pointing toward the ceiling. Push the patient's foot down so the toes are pointing toward the wall.



6. Grasp both sides of the patient's foot with your hands. Push down on one side while pulling up on the other. Reverse the motion.

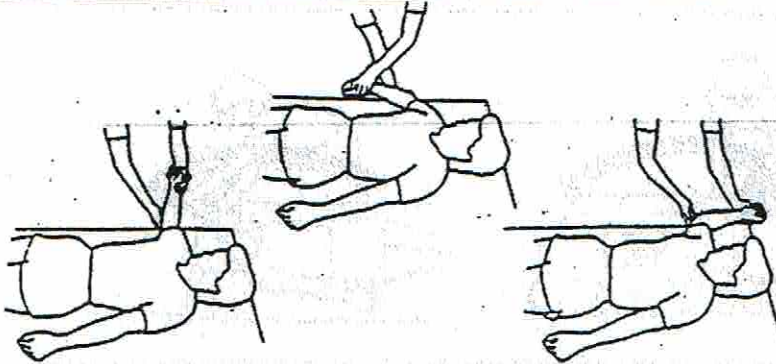


7. Support the patient's foot near the ankle. Place the other hand on the patient's toes and curl them down toward the heel. Then place the palm underneath the patient's toes and push them up toward the knee.

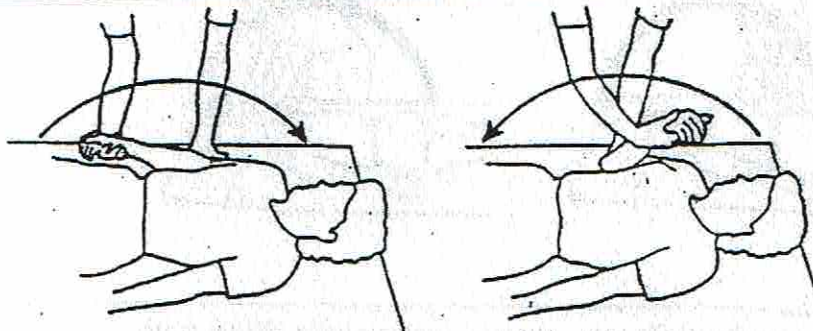




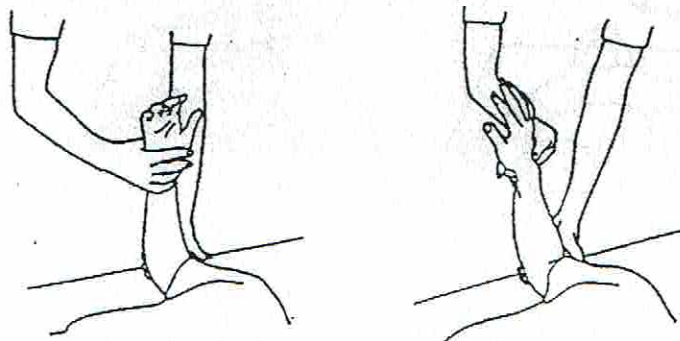
11. With the patient's arm at a right angle to the body, support the patient's wrist and hand with one hand, and hold the elbow with the other hand. Gently rotate the patient's hand up toward the head, then down toward the feet.



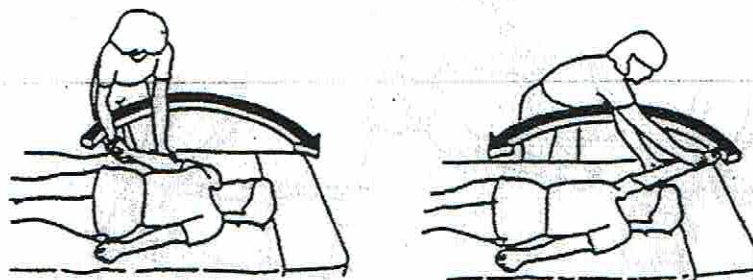
12. Support the patient's elbow with one hand and grip the wrist with the other hand. Bend the patient's elbow slowly to the point of resistance, then return to starting position.



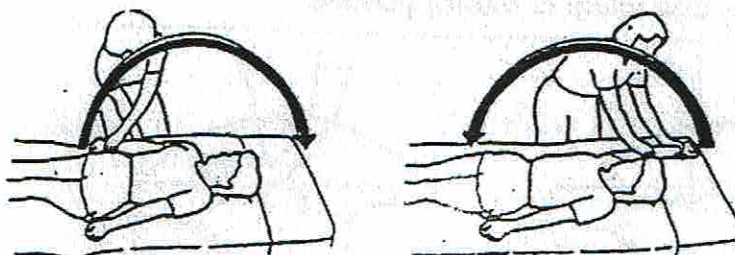
13. Support the patient's elbow and grasp the wrist with your index finger and thumb. Twist the patient's hand so that the palm moves toward the patient's face, then away from it.



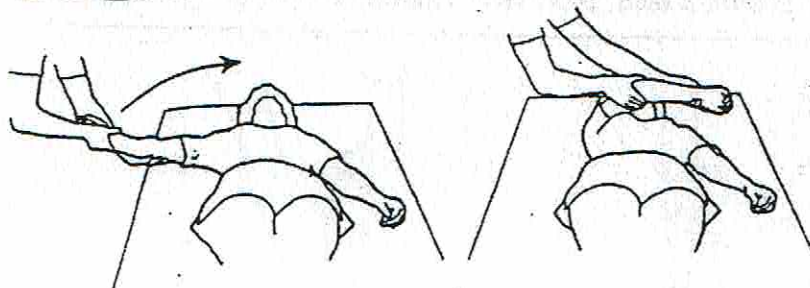
8. Support patient's elbow with one hand and grasp the wrist with the other. Keeping elbow straight, move the arm out to the side away from the body, toward the patient's ear. Return slowly to side.



9. Support the patient's elbow with one hand and grasp the wrist with the other. Slowly lift the whole arm up over the patient's head then lower it back to the side.

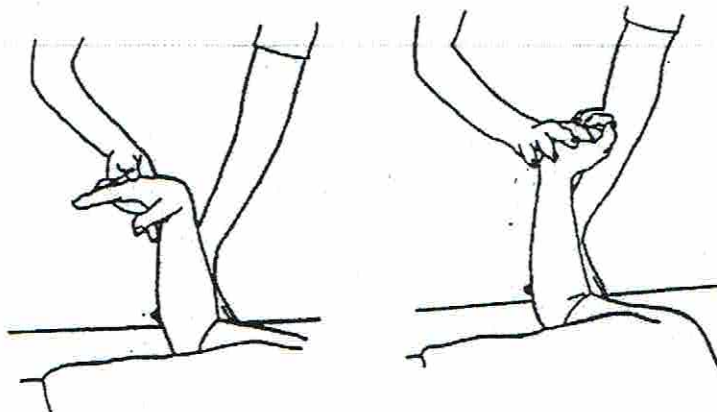


10. Beginning with the right arm, support the patient's elbow with one hand, and grasp the wrist and the hand with your other hand. Bring the arm across the patient's body toward the opposite shoulder, keeping it straight, then slowly return to starting position. Repeat for left arm.



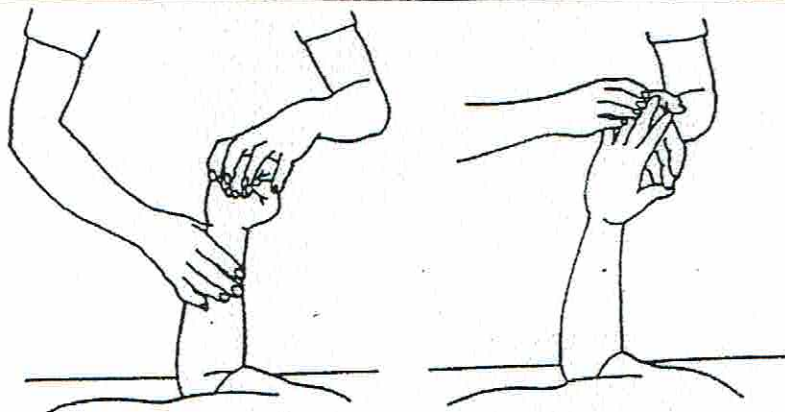
14.

Grasp the patient's forearm with one hand and the patient's hand with your other hand. Move the patient's hand back and forth, bending at the wrist.



15.

Fold the patient's fingers into a fist. Straighten out the patient's fingers and spread them apart.





## Who is appropriate for GRASP?

The GRASP program is designed for stroke participants who would like to improve their arm and hand function. The GRASP protocol is appropriate for people who are able to actively elevate their scapula (shoulder shrug) against gravity. In addition, they require palpable wrist extension. Thus, if the participant rests their stroke-affected hand palm down on a table, they are able to start to lift the fingers off the table. A tiny bit of movement on the lift may be visible, otherwise, muscle activation can be felt over the wrist joint tendons. Participants who have a fixed hand and cannot partially open the hand or fingers are not appropriate for this exercise program, and may benefit from other therapies. For participants who have minimal hand movement (Level 1- per Hospital GRASP), we recommend that they attend a clinic or outpatient hospital unit where they can receive other treatments such as electrical stimulation, in conjunction with exercise to optimize their recovery.

### Minimum Requirement Checklist

- ✓ Some ability to move stroke affected wrist
- ✓ Some ability to shrug their stroke-affected shoulder
- ✓ Able to follow instructions and mimic exercises for an hour
- ✓ Able to communicate any adverse effects, such as pain.
- ✓ Independently carry out exercises or have caregiver assistance

