

RANGE OF MOTION (ACTIVE, ACTIVE ASSISTANCE AND PASSIVE)

PURPOSE:

1. To move the resident's joints through as full a range of motion as possible.
2. To improve or maintain joint mobility and muscle strength.
3. To prevent contractures.
4. To increase strength and activity tolerance.
5. To reduce pain.
6. To prevent complications of mobility.

CONTRAINDICATIONS:

1. Evaluate and recognize the resident's limits of motion and support all joints during movement.
2. Resident's with septic joints.
3. Acute thrombophlebitis.
4. Severe arthritic joint inflammation.
5. Recent trauma.
6. Uncontrollable pain.

EQUIPMENT:

1. Assistive devices/adaptive equipment as appropriate.

PROCEDURE-ACTIVE RANGE OF MOTION:

For active range of motion, follow the same procedure as passive range of motion instructing the resident to perform the activities independently with cueing and supervision by the staff.

Assist the resident as necessary and assess the resident's ability to perform active range of motion. This is "active assistive" range of motion.

GENERAL:

1. Assess the resident for disability, pain and weakness.
2. Determine which joints need range of motion exercise and need for passive or active assistance.
3. Perform all exercises slowly, gently and to the end of normal range of motion or before the point of pain.
4. Never force a joint to move beyond resistance or beyond the point of pain.
5. Always begin and end an exercise of an extremity in a neutral position.

Protocol

1. Assemble equipment
2. Identify resident
3. Introduce yourself
4. Explain procedure
5. Provide privacy
6. Wash hands, apply gloves, apply appropriate PPE

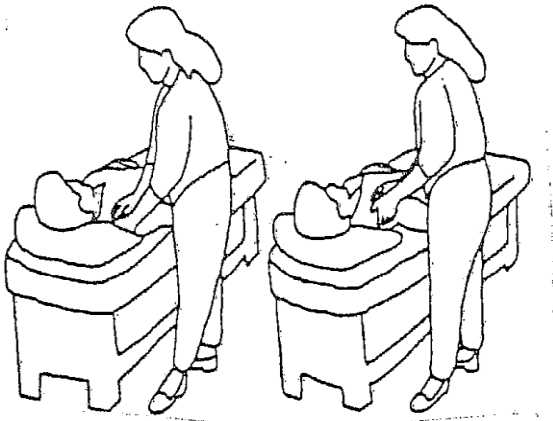
7. Raise bed to a comfortable working position, if applicable
8. Lower the side-rail on the side you will be working on, if applicable
9. Make sure the resident is in good body alignment
10. Cover the resident with a sheet or bath blanket as needed
11. Encourage, cue, supervise, assist, or provide range of motion exercises (ROM)
12. Notify licensed nurse of any complaints or signs of pain/discomfort, stiffness, shortness of breath, dizziness, or anything unusual occurring during exercise

EXERCISE ONE SIDE OF THE BODY AND THEN THE OTHER

DEFINITIONS RELATED TO RANGE OF MOTION:

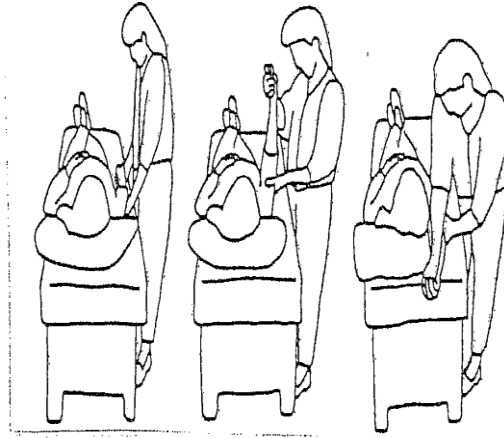
1. ADDUCTION: Movement of limb toward the center of the body.
2. ABDUCTION: Movement of a limb away from the center of the body.
3. ENVERSION: Toward the midline of the body.
4. EVERSION: Away from the midline of the body.
5. INTERNAL ROTATION: Turning inward toward the center.
6. EXTERNAL ROTATION: Turning outward away from the center.
7. ROTATION: Turning or movement of a part around its axis.
8. SUPINATION: Turning upward.
9. PRONATION: Turning downward.
10. ACTIVE RANGE OF MOTION: The resident is able to move his/her joints.
11. PASSIVE RANGE OF MOTION: The resident's joints are put through the range of motion by another.

JOINT RANGE OF MOTION THE SHOULDER



Protract the Scapula

Roll the shoulder blade forward by cupping one hand over the front of the shoulder and placing the other hand on the shoulderblade.



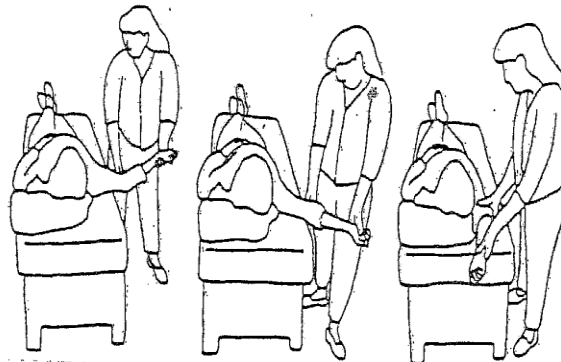
Flexion and Extension

Arm straight down to the side. Reach straight up to head and back. “Lift your arm up overhead, put it back down to your side.”



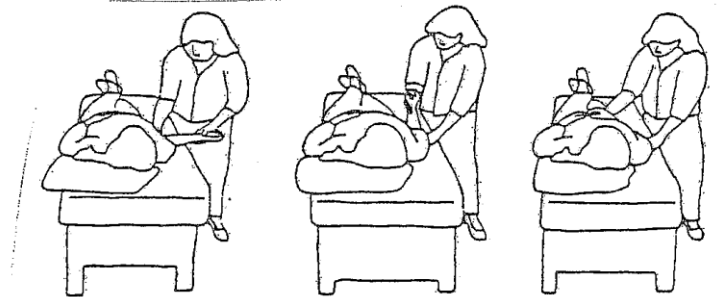
Horizontal Adduction

Arm straight out to side, reach across and touch opposite shoulder.



Abduction

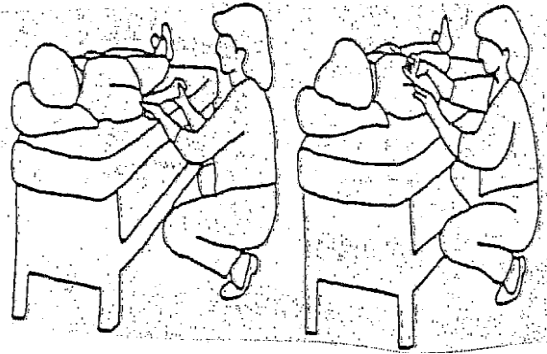
Arm at side, palm up, circle arm out and up over, head to touch opposite ear.



Internal and External Rotation

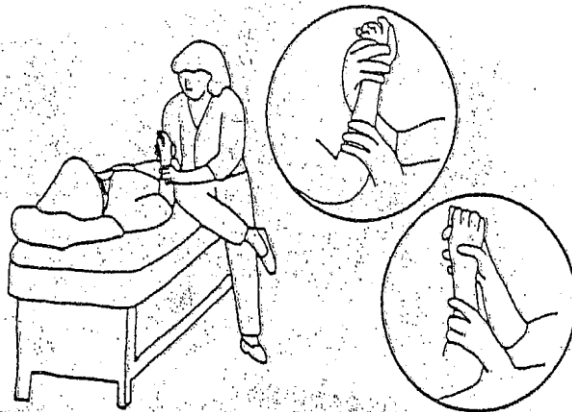
Arm at the side, elbow bent, move hand to stomach and then back to the supporting surface. Be sure to keep the elbow bent and touching the patient's side.

JOINT RANGE OF MOTION THE ELBOW, FOREARM AND WRIST



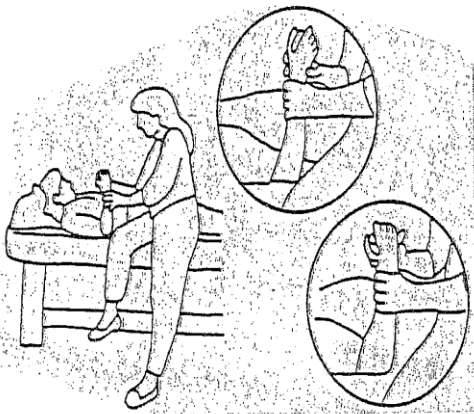
ELBOW Flexion and Extension

Arm at side, palm up, touch hand to shoulder and Return to starting position.



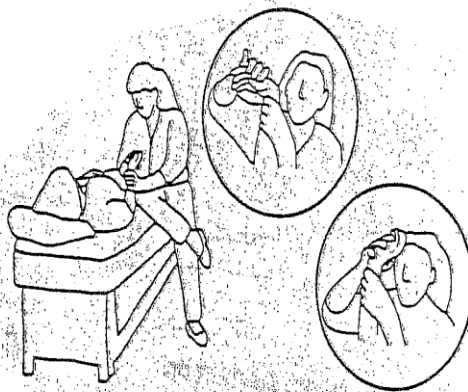
FOREARM Pronation and Supination

Arm at side, elbow bent, turn palm toward face, toward feet. When turning the forearm be sure to apply force to the forearm and not to the wrist.



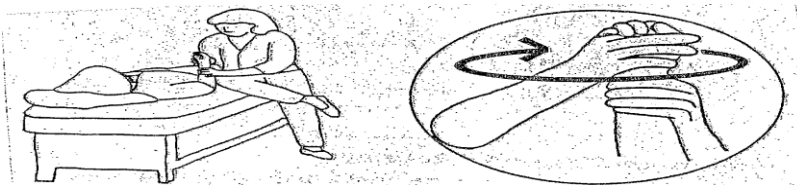
WRIST Radial and Ulnar Deviation

Elbow bent, at side, move wrist side to side as if shaking hands.



WRIST Flexion and Extension

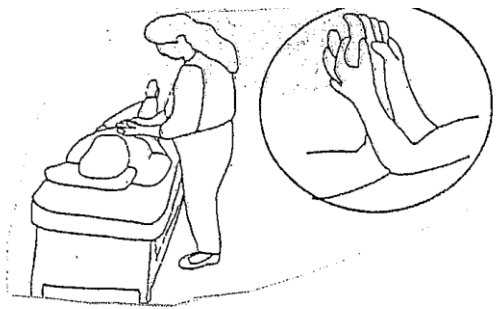
Elbow bent, at side, move wrist as though waving goodbye.



WRIST Circumduction

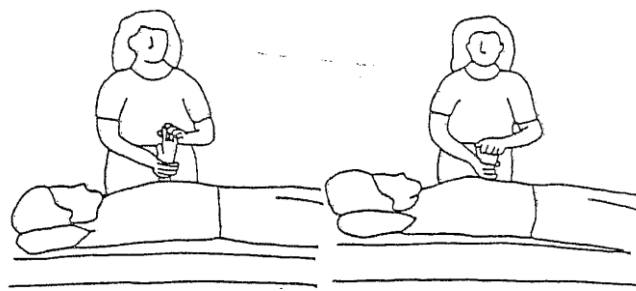
Elbow bent, at side, move the wrist in a circular motion.

JOINT RANGE OF MOTION THE HAND AND FINGERS



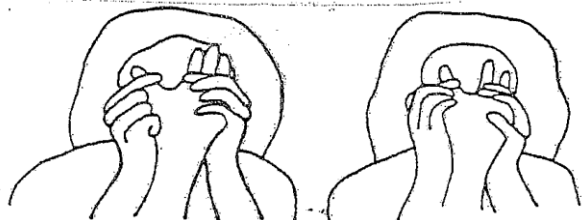
HAND Metacarpal Gliding

Hold each edge of hand with back of hand facing you. with thumbs on adjacent metacarpal bones, move up and down in relation to each other.



FINGERS Flexion and Extension

Open hand and close the hand in a fisting motion.



FINGERS Abduction and Adduction

Fan fingers apart and together.



FINGERS Opposition

Touch thumb to the base of each finger.



FINGERS Metacarpalphalangeal Flexion

Stabilize the ends of the fingers. At the knuckles bend at 1st knuckle (closest to the hand) keeping fingers straight.



FINGERS Proximal Interphalangeal Flexion

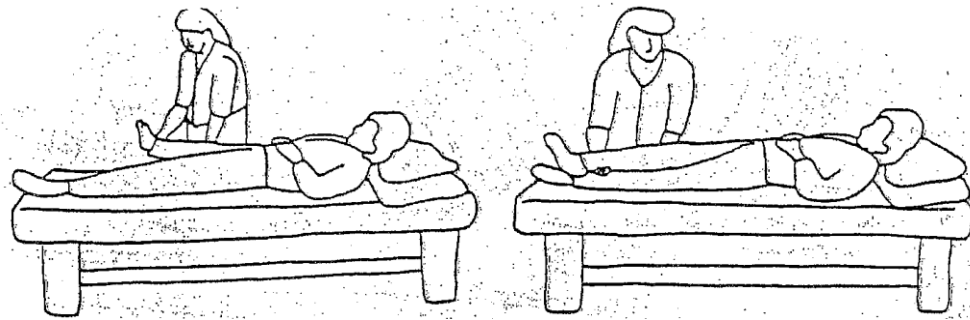
Stabilize first knuckle joint, bend 2nd joint keeping rest of the finger straight.



6. FINGERS Distal Interphalangeal Flexion

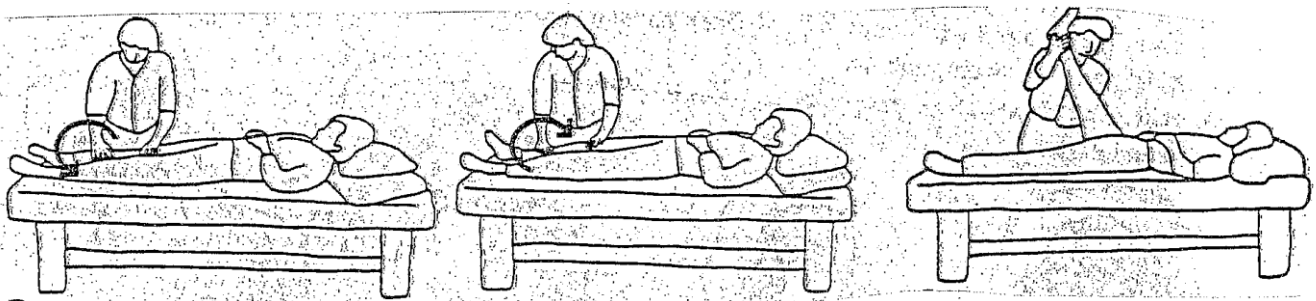
Stabilize 1st and 2nd knuckle joint; bend 3rd knuckle joint.

JOINT RANGE OF MOTION THE HIP



HIP Abduction and Adduction

Leg straight, point toes up, move leg out to side then cross over the other leg.

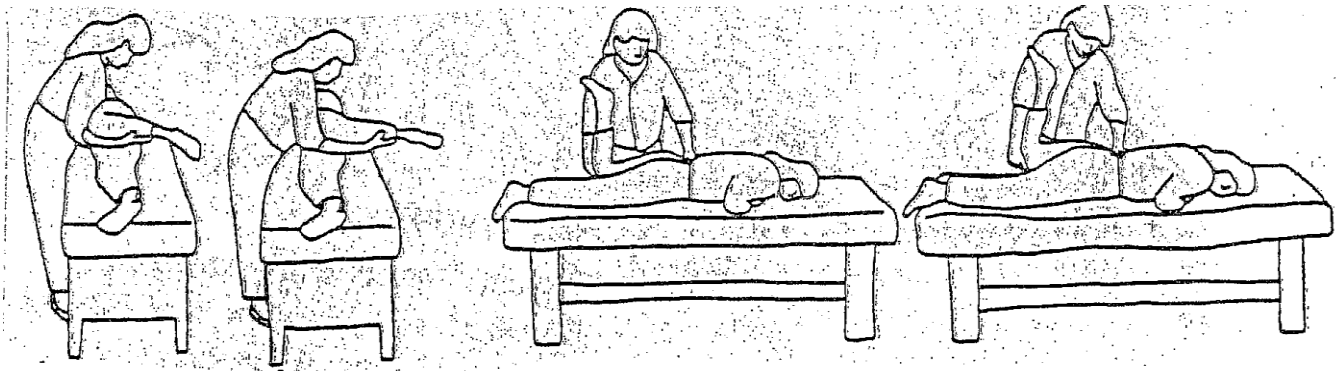


HIP Internal and External Rotation

Leg straight, point toes up. Roll the leg in and out, facing the leg in toward the body and then away.

HIP Flexion

Leg straight, lift leg up as high as you can and then down. Be sure to keep the knee straight.



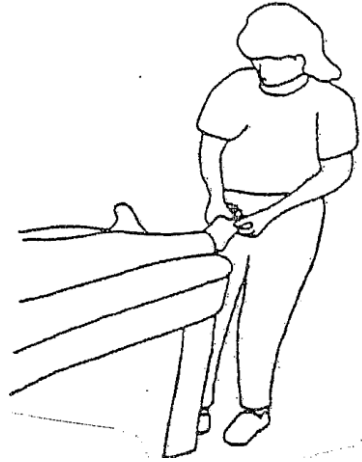
HIP Extension

Position the patient on his/her side, the knee of the top leg should be bent. Pull the top leg back and then return to the starting position. The degree of movement is slight – usually only 10 or 15 degrees. Be sure you are moving the hip and not the spine.

OR Alternate Hip Extension

Position patient on stomach. Bend knee and lift the upper part of the leg up off the supporting table.

JOINT RANGE OF MOTION THE FOOT AND TOES



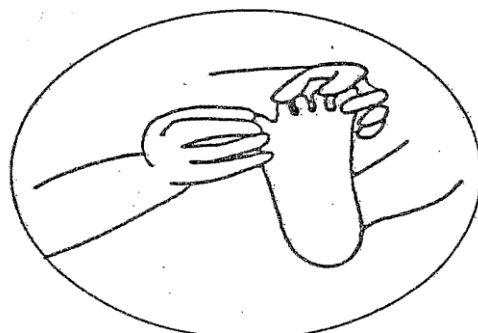
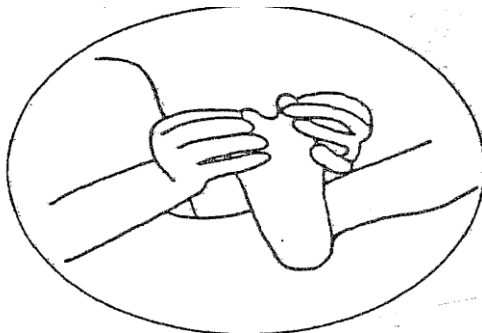
FOOT Metatarsal Gliding

Holding edges of foot, move adjacent bones up and down



TOES Flexion and Extension

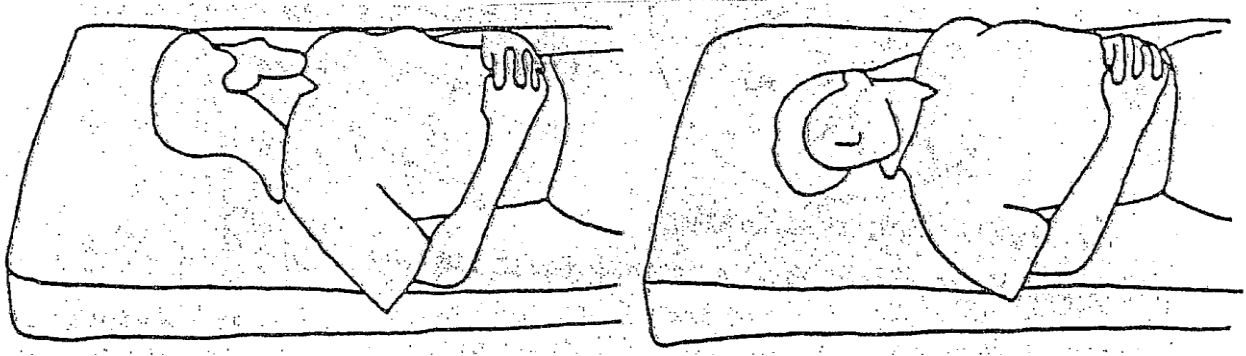
Stabilize foot just below the toes. Bend and straighten toes.



TOES Abduction and Adduction

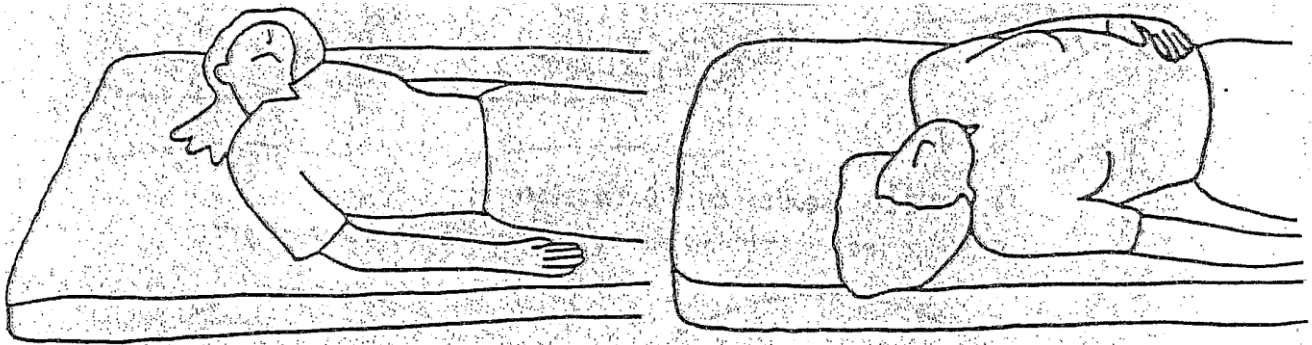
Spread toes apart, two at a time.

JOINT RANGE OF MOTION THE NECK



NECK Rotation

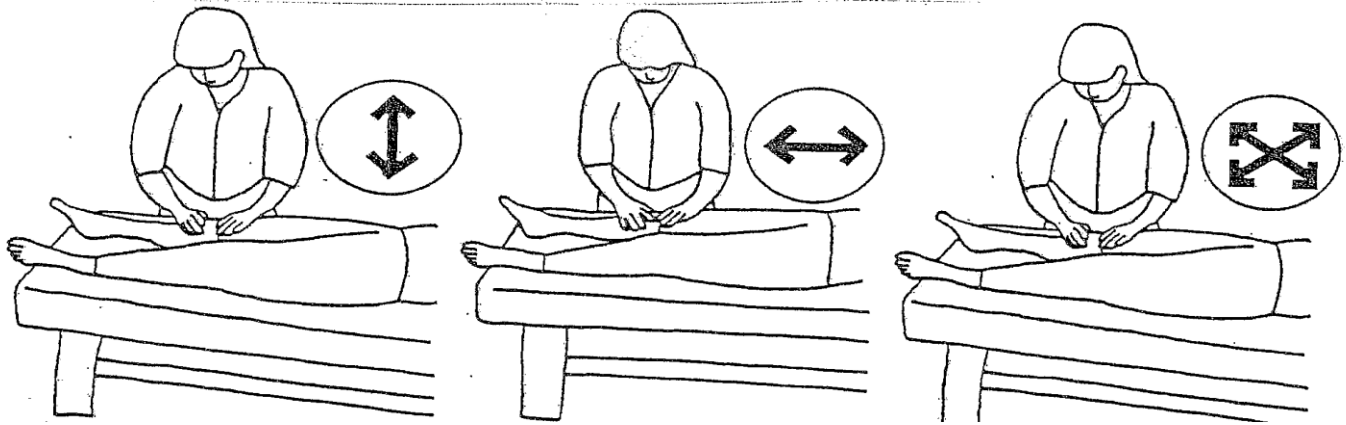
Instruct patient to look to the left, then to the right.



NECK Lateral Flexion

Instruct the patient to take left ear to left shoulder, right ear to right shoulder.

JOINT RANGE OF MOTION THE KNEE



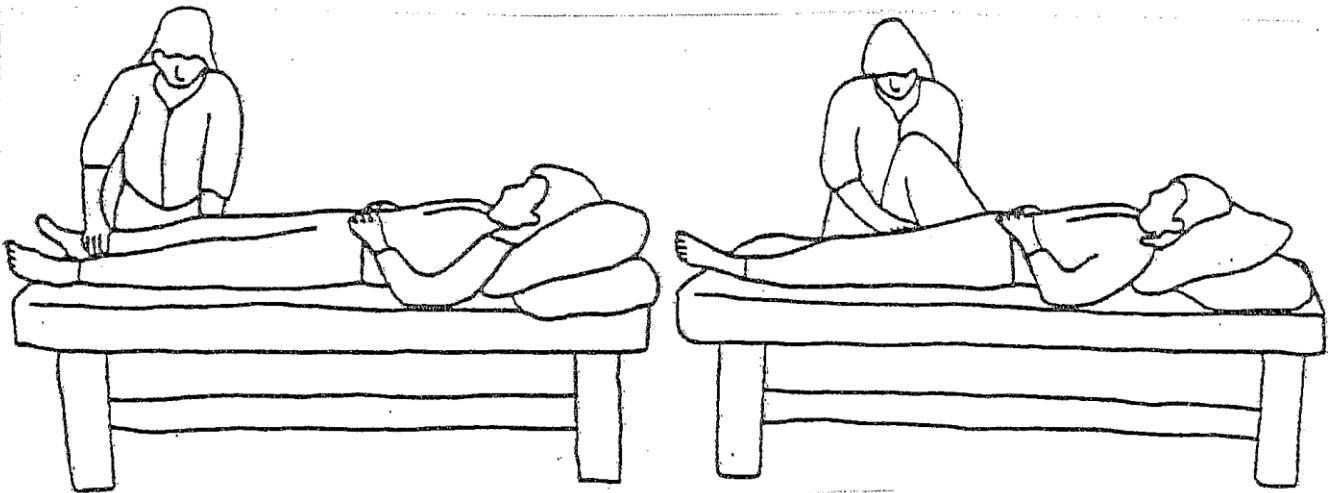
KNEE Patellar Gliding

Legs straight and relaxed.

Move knee cap to right and left

Move knee cap up and down.

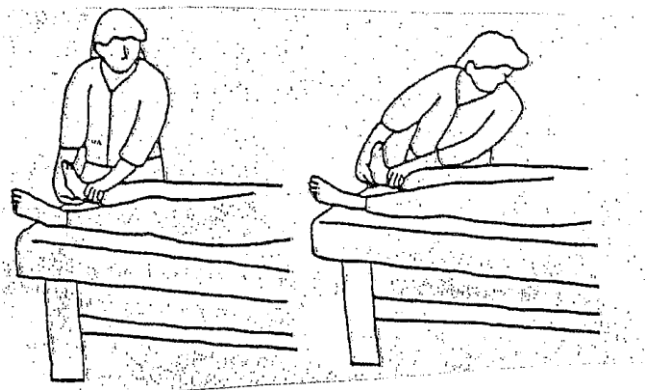
Move knee cap diagonally.



KNEE Flexion

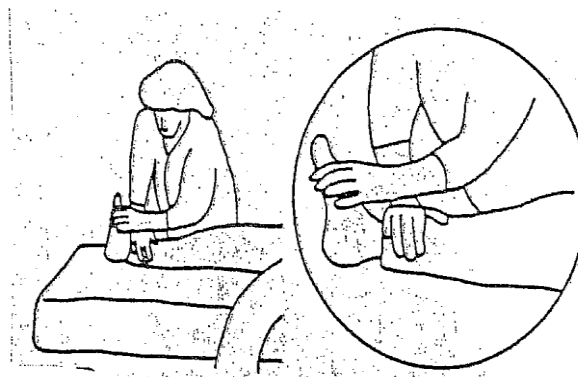
Patient on back, keep heel on bed. Bend knee, bringing the heel back as if to touch the thigh. Return to starting position.

JOINT RANGE OF MOTION THE ANKLE



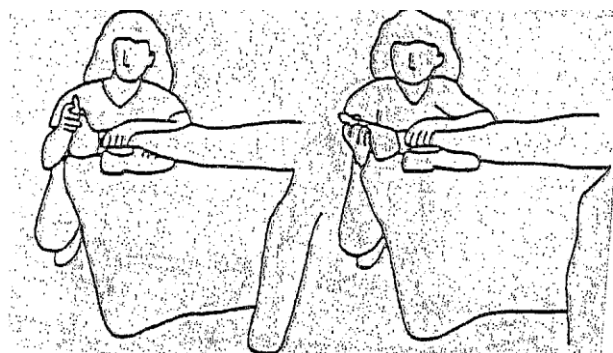
ANKLE Heel Cord Stretch

Place patient's heel into the cup of your hand. Place other hand slightly above the ankle to stabilize. Align your forearm with the bottom of patient's foot. Lean into the foot so that the foot bends toward patient's head and hold for 5 seconds. Do not allow patient's knee to bend. Patient should feel a stretching sensation in the calf.



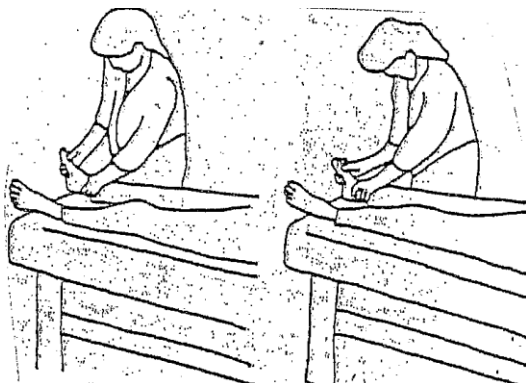
OR Alternate Heel Cord Stretch

When working with neurological patients you may find that the pressure on the ball of the foot causes the foot to push further downward. To better assist the patient to move into dorsiflexion, place your hand on the lateral borders of the foot. Place your other hand on the ankle to stabilize the foot. Now smoothly pull the foot into dorsiflexion.



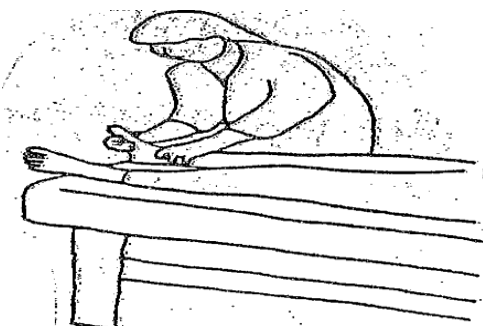
ANKLE Dorsiflexion and Plantarflexion

Patient on back, legs straight. Point toes toward head, then point down away from body.



ANKLE Inversion and Eversion

Patient on back, leg straight, stabilized at ankle. Point Side of foot in toward opposite leg, then point to the side away from the body.



ANKLE Circumduction

Stabilize above ankle and move foot in a circular pattern.