Muscular – Active Assistive Range of Motion (AAROM)  SECTION: 6.01

Strength of Evidence Level: 1

PURPOSE:
Assist patients with moving the joints through available joint motion without causing pain. This procedure promotes good circulation, flexibility and mobility of joints, and prevents shortening of muscles, tendons and ligaments.

CONSIDERATIONS:
1. The patient should never perform Active Assistive Exercise without specific instructions from the nurse or therapist.
2. The patient should never move a joint beyond the point of pain. Pain is a warning sign and should be considered an indicator of impending problems. Report any new or unusual patient pain to your supervisor.
3. Exercises are performed using the flat part of the hand and fingers to support the patient's extremities. Do not grip with your fingertips due to pressure sensitivity and the risk of injury by fingernails.
4. Follow a logical sequence during the exercises so that each joint is exercised. For instance, start at the head, and work down to the feet.
5. Slow, steady and rhythmic movement of a tight joint will help the muscle relax and may increase the available joint range.
6. Include the caregiver in the AAROM exercise program so they can observe and learn the process.
7. All AAROM exercises should be performed with the uninvolved, as well as with the involved extremity.
8. All exercises are performed with the patient lying flat on the back with arms at the sides.
9. Contraindication: AAROM should not be performed on joints that exhibit unusual swelling or redness.
10. Closely observe the patient for adverse reactions such as pain, shortness of breath, swelling or redness. Report any adverse reactions to your supervisor.

EQUIPMENT:
Comfortable clothing

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain the procedure to the patient.
3. Have the patient perform each exercise 8 to 10 times for 2 to 3 sets or as instructed.
4. Review the specific AAROM program for the patient. The exercises to be performed will be assigned by number.
5. Raise the bed to a horizontal position, which is comfortable for your height to reduce back strain.
6. Remove any obstacles such as the bed rail, trapeze or medical equipment.
7. Use a draw sheet to move the patient close to you.
8. Expose only the body part that is being exercised.
9. Give only as much assistance as the patient needs to complete the movement.
10. Take the vital signs before and after exercise.

Exercise 1 – Shoulder: Flexion
1. Starting position: Hold the wrist with one hand. With the other hand, support the elbow joint to stabilize the joint. Turn the palm inward, facing the body.
2. Assist the patient in lifting the arm up from the side of the body.
3. Carry the arm slowly and gently towards the patient's head as far as it will go without hurting the patient.
4. The arm may be bent at the elbow if the headboard of the bed will not permit the arm to be carried all the way back.
5. Carry the arm back to the starting position and repeat the exercise.

Exercise 2 – Shoulder: Abduction
1. Starting position: Hold the patient's hand with your other hand support the elbow to stabilize the joint.
2. Keep the patient's arm straight; assist the patient in moving the arm away from the body, out to the side.
3. Continue moving the arm slowly outward then toward the head as far as it will go without hurting the patient, allowing the arm to rotate outward as you move the arm outward. Return the arm to the starting position and repeat the exercise.

Exercise 3 – Shoulder: Horizontal Abduction
1. Starting position: Place one hand under the patient's elbow.
2. Hold the patient's hand with your other hand.
3. Assist the patient in lifting the arm and carrying the arm across the patient's chest toward the opposite shoulder.
4. Return the arm to the starting position and repeat the exercise.

Exercise 4 – Shoulder: Rotation
1. Starting position: Move the arm away from the body until the elbow is at shoulder height then bend the elbow.
2. Place one hand under the elbow; hold the wrist with the other hand.
3. Assist the patient in rotating the forearm and hand slowly down toward the feet, and gently back toward the head as far as possible without causing pain, until the hand points up toward the head. Keep supporting the elbow gently against the mattress.
4. Return the arm to the starting position and repeat.

Exercise 5 – Elbow: Flexion and Extension
1. Starting position: Hold the upper arm with one hand and the forearm with the other.
2. Assist the patient in to bend the elbow so that the hand touches the shoulder.
3. Then straighten the arm all the way out.
4. Return to the starting position and repeat.
Muscular – Active Assistive Range of Motion (AAROM)  
SECTION: 6.01

Strength of Evidence Level: 1

Exercise 6 – Forearm: Pronation and Supination
1. Starting position: Place one hand on the patient’s elbow and your other hand on the patient’s hand.
2. Assist the patient to rotate the forearm and hand so that the palm of the hand is toward the patient’s face.
3. Rotate the forearm and hand so that the palm of the hand is away from the patient’s face, and repeat. Be sure to rotate the forearm and not the hand.

Exercise 7 – Wrist and Finger: Flexion; Wrist and Finger: Extension
1. Starting position: Hold the patient’s forearm above the wrist with one hand and the patient’s hand with your other hand.
2. Assist the patient in straightening the fingers of the patient’s hand straight, while bending the hand backward.
3. Straighten the hand back to the starting position.
4. Now bend the hand forward, closing the fingers to make a fist. Open the hand and repeat the exercise.

Exercise 8 – Finger: Abduction and Adduction; Thumb: Opposition and Reposition
1. Hold the patient’s finger straight with one hand. With your other hand, bend the patient’s thumb into the palm of his hand toward the base of the little finger.
2. Assist the patient in pulling the thumb back so that it points away from the hand, and repeat the exercise. This preserves the web space between thumb and hand.
3. Holding the patient’s hand in the starting position, assist the patient in separating each finger to preserve its web space.
4. Assist the patient in moving the thumb in a circle.

Exercise 9 – Hip and Knee: Flexion; Knee: Extension
1. Starting position: Cradle the leg by placing one hand under the patient’s knee and your other hand under the heel of the foot.
2. Assist the patient to lift the leg; bend it at the knee toward the chest with the kneecap pointed toward the ceiling.
3. Move the knee slowly toward the patient’s head as far as it will go without causing pain to the patient.
4. Lower the leg to the starting position and repeat the exercise.

Exercise 10 – Hip and Hamstring: Stretch
1. Starting position: Support the knee and heel as in exercise nine.
2. Assist the patient to slowly raise the leg, keeping the knee straight.
3. Only lift the leg as high as you can while maintaining a straight knee.
4. If there is any sign of discomfort, do not go any higher.
5. Lower the leg to the starting position and repeat the exercise.

Exercise 11 – Hip: Abduction; Hip: Adduction
1. Starting position: Support the knee and heel as in exercise nine. Keep the knee and foot straight, pointing the toes up toward the ceiling.
2. Lift the leg 1 to 2 inches off the bed.
3. Assist the patient to move the leg out to the side, without causing pain to the patient.
4. Move the leg back until it touches the other leg.

Exercise 12 – Hip: Internal Rotation; Hip: External Rotation
1. Starting position: Cup the heel of the patient's foot with your hand, and rest your forearm against the bottom of the patient's foot. Place your other hand on the patient's leg just above the ankle.
2. Assist the patient to move the forefoot toward the head and point the forefoot downward.

Exercise 13 – Dorsiflexion: Plantar Flexion
1. Starting position: Place one hand just above the knee and one hand below the knee.
2. Assist the patient to roll the leg so that the knee points towards the other leg.
3. Roll the leg so that the knee points away from the other leg.

Exercise 14 – Foot: Inversion; Foot: Eversion
1. Starting position: Place one hand on the leg above the ankle to stabilize the leg. Place the other hand under the ball of the foot.
2. Assist the patient to turn the whole foot outward.
3. Assist the patient to turn the whole foot inward. Return to the starting position and repeat the entire exercise.

Exercise 15 – Toe: Extension; Toe: Flexion
1. Starting position: With one hand, gently grip the foot at the arch and with the other hand, place your fingers on the patient's toes.
2. Assist the patient to pull the toes up.
3. Assist the patient to push the toes down.
4. Return to the starting position and repeat the entire exercise.

AFTER CARE:
1. Monitor the patient’s vital signs.
2. Return the bed to the lower position.
3. Return the equipment such as bed rails and trapeze to their previous placements.
4. Document in the patient's record:
   a. Extremity(ies) ranged.
   b. Number of times AAROM was performed.
   c. Patient's response to the procedure.
5. Inform your supervisor of any change in the patient’s condition including:
   a. Increased difficulty in performing the exercises.
   b. The patient's noncompliance with the exercise program.
   c. Adverse reactions: pain, swelling and shortness of breath.
REFERENCES:


PURPOSE:
Encourage independent movement in order to initiate muscle activity, and increase endurance, muscle mass and joint range of motion.

CONSIDERATIONS:
1. The patient must be able to lift the weight of their extremities to successfully perform active exercises. If they are unable to do so, the clinician should consider passive or active assistive exercises.
2. Observe patient for signs of poor tolerance to active exercise due to cardiovascular or pulmonary diagnoses.
3. If active motion is limited by chronic disease, then motion should be limited to passive range of motion.
4. Exercises can be modified to be performed sitting or lying on the back.

EQUIPMENT:
None

PROCEDURE:
1. Monitor vital signs prior to and following exercise.
2. Remove any obstacles to free movement such as bed rails, trapeze or equipment.
3. Expose only the body parts that are actively moving.
4. Review the exercise program with the patient prior to initiating the program.
5. Patient performs each exercise 8 to 10 times for 2 to 3 sets as tolerated by fatigue and vital signs.

Exercise 1 – Shoulder: Flexion
1. Leading with the thumb pointing upward, the patient slowly raises the arm overhead.
2. The patient returns the arm to the side of the body.

Exercise 2 – Shoulder: Abduction
1. With the palm facing upward the patient slowly moves the arm away from the body in an arch towards the head.
2. The patient returns the arm to the side of the body.

Exercise 3 – Shoulder Horizontal: Adduction
1. With the palm facing upward the patient slowly reaches across the chest towards the opposite shoulder.
2. The patient returns the arm to the side of the body.

Exercise 4 – Rotation
1. The patient places the elbow at shoulder height.
2. The patient slowly moves the hand backwards so that the fingers point towards the head.
3. The patient then rotates the arm downward so that the fingers are pointing towards the foot.
4. The patient returns the arm to the side of the body.

Exercise 5 – Elbow Flexion and Extension
1. The patient bends the elbow so the fingers point toward the head.
2. The patient returns the arm to the side of the body.

Exercise 6 – Forearm Pronation: Supination
The patient slowly turns the palm upward then slowly rotates the palm downward.

Exercise 7 – Wrist and Finger Flexion: Extension
1. With the palm down the patient slowly straightens the fingers and bends the hand upward towards the head.
2. The patient then slowly closes the fist and bends the hand downwards.

Exercise 8 – Finger Abduction – Adduction, Thumb Opposition: Reposition
1. The patient slowly moves the fingers apart and together.
2. The patient slowly moves the thumb away from the hand and back in towards the pinky finger.
3. The patient moves the thumb in a circle.

Exercise 9 – Hip and Knee Flexion, Knee Extension
1. The patient slowly bends the hip and knee toward the head.
2. The patient slowly returns the leg downward, straightening the knee as far as possible.

Exercise 10 – Hip Flexion
1. The patient slowly raises the leg, keeping the knee straight at all times.
2. The patient returns the leg to the resting position.

Exercise 11 – Hip Abduction: Adduction
1. The patient slowly moves the leg away from the body.
2. The patient slowly returns the leg to the resting position.

Exercise 12 – Hip Internal: External Rotation
1. The patient slowly rolls the legs so the toes point inward.
2. The patient slowly rolls the legs so the toes point outward.

Exercise 13 – Dorsiflexion: Plantar Flexion
1. The patient slowly pulls the forefoot toward the head.
2. The patient slowly points the forefoot downward.

Exercise 14 – Foot Inversion and Eversion
1. The patient slowly turns the feet inward.
2. The patient slowly turns the feet outward.

Exercise 15 – Toe Extension and Flexion
1. The patient slowly pulls the toes upward, spreading the toes apart.
2. The patient slowly points the toes downward.

Exercise 16 – Neck Flexion and Extension
1. The patient slowly tucks the chin downward, and then slowly tilts the head backward.

Exercise 17 – Neck Rotation
1. The patient slowly turns the head from side to side.
Exercise 18 – Lateral Neck Bending
The patient slowly lowers the ear towards one shoulder and then slowly tilts the head towards the opposite shoulder.

AFTER CARE:
1. Ask the patient about and watch for any adverse reactions or unusual pain.
2. Monitor the vital signs and report any adverse findings.
3. Document in the patient’s chart the exercises performed, number of repetitions and tolerance to the exercise.
4. Return any moved equipment, such as bed rail and trapeze, to their original positions.

REFERENCES:

Muscular – Gross Muscle Test

SECTION: 6.03

Strength of Evidence Level: 1

PURPOSE:
To assess voluntary muscular function in major muscle groups and functional muscle control abilities.

CONSIDERATIONS:
1. Patients with cognitive deficits may be unable to follow movement commands in order to participate in gross muscle testing.
2. Caution should be used with muscle testing in the presence of skin breakdown, suspected or actual fracture location, significant diagnoses (such as osteoporosis, decreased platelets, anti-coagulation therapies and more), postural restrictions, joint restrictions and when reported pain prior to assessment or pain upon muscle testing motions indicates patient discomfort.
3. May be performed as component of functional assessment and activities of daily living (ADL) assessment; to avoid fatigue, gross muscle testing may be completed with rest and pacing.
4. Special consideration should be used when assessing head and neck muscles.

EQUIPMENT:
Firm surface such as bed or chair with back

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain assessment to patient.
3. Provide privacy if appropriate.
4. If patient is in a hospital bed, raise the bed to waist height or comfortable working position for clinician. If patient is in a hospital bed or wheelchair, ensure the wheels are locked. If patient is in a non-hospital bed, clinician should ensure safe personal body mechanics. Gross muscle assessment of lower extremity, especially hip, is limited when assessment takes place while patient is seated.

Hold Resist Test Method (Tests Strength in Muscular Function)
1. Clinician asks patient to hold the position and not allow the clinician to move the body part be tested. Example: Clinician holds hand, patient bends elbow towards shoulder; instructions by clinician to patient are “Do not let me straighten your arm/elbow: Hold right here.”
2. Clinician then places resistance to arm, trying to move elbow into extension.
3. Amount of resistance is carefully gauged by the clinician beginning with low level and no sudden surge in resistance to muscle groups and body part.

Move with Continuous Resistance Method (tests strength and range of motion in muscular function)
1. Clinician provides resistance to and throughout the range of movement of the muscle group and body part. Example: Clinician holds hand, patient bends elbow towards shoulder and then straightens elbow; instructions by clinician to patient are “I want you to move while I resist your movement so I can assess your strength and range of motion. Try to move without stopping.”
2. The clinician provides counter force to motion that requires muscles to work more, but not so much force that the movement cannot continue.

Active Movement Method (Tests Active Range of Motion in Muscular Function)
1. Clinician asks patient to move body part through the range of motion. Example: Patient is asked to straighten fingers, then lift both arms with straight elbows so that arms are overhead, reaching for ceiling. Clinician can compare movement ability and quality side to side.

Key muscle group functions/motions to assess:
   a. Shoulder – flexion/extension, rotation, abduction/adduction
   b. Elbow - flexion/extension, rotation
   c. Wrist - flexion/extension, medial/lateral
   d. Hand/fingers - flexion/extension, abduction/adduction
   e. Hip - flexion/extension, rotation, abduction/adduction
   f. Knee - flexion/extension
   g. Ankle/toes - flexion/extension, rotation
   h. Trunk – anterior, posterior, lateral rotation
   i. Head/neck - flexion/extension, rotation, side bending
   j. Trunk - flexion/extension, rotation, side bending

Clinician should observe quality of movement:
   a. Speed
   b. Tone
   c. Rigidity
   d. Coordination
   e. Alignment

AFTER CARE:
1. Document in patient's record:
   a. Muscles/functions assessed.
   b. Assessment method used.
   c. Patient's response to testing.
   d. Related issues such as hand dominance.

REFERENCES:
PURPOSE:
To provide a thorough interview of the significant related aspects of muscular condition, movements and abilities.

CONSIDERATIONS:
1. Patients with cognitive deficits may be unable to accurately report or participate in the interview and caregivers may not have sufficient knowledge of muscular system history to provide information.
2. Identifying the muscular condition that existed previous to the onset of home care will help inform the clinician of areas for further assessment and identify prior functional status.

EQUIPMENT:
None

PROCEDURE:
1. Explain assessment process to patient and rationale for obtaining history.
2. Use consistent interview questions.
3. Be prepared to provide examples and explanations to ensure common understanding by any patient.
4. Use guidelines for lowest patient language level to ensure understanding.
5. Be prepared to ask history questions in patient’s primary language.
6. Provide adequate time for patient to consider history questions and respond accordingly.
7. Key Muscular History questions to consider:
   a. Have you ever had or experienced/felt:
   b. Weakness in your muscles anywhere in your body?
   c. Pain in your muscles anywhere in your body?
   d. Inability to move a muscle or move arm, leg, etc.?
   e. Twitching or involuntary movement in your muscles?
   f. Inability to stretch or stand up completely?
   g. Surgery for a muscular problem?
   h. Worn braces, casts or slings for a muscular problem?
   i. A family history of muscle weakness or disease?
   j. Taken medications for a muscular diagnosis or problem?
   k. Limited your daily activities due to muscular related issues?
   l. Used a walker, cane, crutch or wheelchair due to muscular related issues?
   m. Favored or did not use your leg or arm due to a muscular complaint or issue?

AFTER CARE:
1. Document in patient's record:
   a. Summary of muscular history.
   b. Assessment to date and follow-up recommendations based on muscular history information.

REFERENCES:
Muscular – Pain Assessment

Strength of Evidence Level: 1

PURPOSE:
To assess for pain during or after voluntary muscular function in major muscle groups and functional muscle control activities.

CONSIDERATIONS:
1. Patients with cognitive deficits and infants/young children may be unable to participate in standard pain assessment and appropriate pain assessment tools should be used with these patient populations. See references for links to nonverbal pain assessment resources.
2. No single pain assessment tool is recommended. However, a standardized tool should be selected and used following administration directions.
3. Pain should be considered the 5th vital sign and should be assessed on each home visit.

EQUIPMENT:
If using a standardized assessment tool using a visual component such as FACES scale or visual analog scale, have visual reference material ready.

PROCEDURE:
1. Explain assessment to patient.
2. Provide for privacy, if appropriate.
3. Be prepared to ask about pain in patient’s primary language.
4. Provide adequate time for the patient to consider pain questions and respond accordingly.
5. Administer standardized pain assessment based on the clinician’s assessment of the most appropriate pain assessment tool to use.
6. Key factors regarding pain to assess:
   a. Location – exact site, if possible to locate; if multiple sites, are they related?
   b. Intensity – maximal and minimal pain levels.
   c. Duration – length of time at maximal pain, ramp up and ramp down time frames.
   d. Frequency – how often pain occurs.
   e. Flare-ups – what aggravates the pain?
   f. Cool-downs – what helps decrease the pain?
7. Clinician should observe any key factor information in #6 above with quality of movement and ability to participate in activities for self-care or pleasure.

AFTER CARE:
1. Document in patient's record:
   a. Pain assessment findings.
   b. Standardized pain tool used.
   c. Patient's response to assessment.
   d. Any recommended follow-up actions based on findings from pain assessment.

REFERENCES:
(54x744) Muscular – Pain Assessment

SECTION: 6.05

(54x744) Muscular – Pain Assessment

PURPOSE:
To assess for pain during or after voluntary muscular function in major muscle groups and functional muscle control activities.

CONSIDERATIONS:
1. Patients with cognitive deficits and infants/young children may be unable to participate in standard pain assessment and appropriate pain assessment tools should be used with these patient populations. See references for links to nonverbal pain assessment resources.
2. No single pain assessment tool is recommended. However, a standardized tool should be selected and used following administration directions.
3. Pain should be considered the 5th vital sign and should be assessed on each home visit.

EQUIPMENT:
If using a standardized assessment tool using a visual component such as FACES scale or visual analog scale, have visual reference material ready.

PROCEDURE:
1. Explain assessment to patient.
2. Provide for privacy, if appropriate.
3. Be prepared to ask about pain in patient’s primary language.
4. Provide adequate time for the patient to consider pain questions and respond accordingly.
5. Administer standardized pain assessment based on the clinician’s assessment of the most appropriate pain assessment tool to use.
6. Key factors regarding pain to assess:
   a. Location – exact site, if possible to locate; if multiple sites, are they related?
   b. Intensity – maximal and minimal pain levels.
   c. Duration – length of time at maximal pain, ramp up and ramp down time frames.
   d. Frequency – how often pain occurs.
   e. Flare-ups – what aggravates the pain?
   f. Cool-downs – what helps decrease the pain?
7. Clinician should observe any key factor information in #6 above with quality of movement and ability to participate in activities for self-care or pleasure.

AFTER CARE:
1. Document in patient's record:
   a. Pain assessment findings.
   b. Standardized pain tool used.
   c. Patient's response to assessment.
   d. Any recommended follow-up actions based on findings from pain assessment.
PURPOSE:
To reduce acute and chronic pain symptoms, to allow the patient to live a more symptom free life.

CONSIDERATIONS:
1. Acute pain is abrupt, intense pain that subsides after a period of days or weeks.
2. Some people continue to suffer from pain that persists despite nonsurgical or surgical treatment methods. This long-term pain is called chronic pain.
3. Never use a heating pad on bare skin.
4. Limit heat or cold application to 5 to 10 minutes.
5. Do not use heat or cold over any area where there is a skin irritation or open sore.
6. Avoid massage and vibration over red, raw, tender or swollen areas.
7. Always follow the specific instructions written by the therapist or the nurse to manage the patient’s pain symptoms.
8. If any of the following guidelines cause an increase of pain, spreading of pain to the arms or legs, or increase in weakness in the arms or legs, have the patient discontinue the activity and seek the advice of a healthcare provider or physical therapist.

EQUIPMENT:
None

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain procedure to patient.
3. Review and follow nurse or therapist’s instructions.

Acute Pain
1. Encourage the patient to restrict activities. Instruct the patient to reduce or eliminate activities that increase pressure to the affected area.
2. Assist the patient into a comfortable position.
3. Instruct the patient to use ice during the first 48 hours following the onset of pain, and then progress to heat. Ice and heat can alleviate local pain that comes from muscle and ligament strain.
4. Instruct the patient to follow the medication regime prescribed by the healthcare provider. Non-steroidal anti-inflammatory drugs (NSAIDs) can be effective to reduce inflammation and relieve pain. Over-the-counter NSAIDs are intended for short-term use. Never use NSAID’s for more than a week unless it is recommended by the health care provider.
5. After the initial acute phase (several days), a gentle massage may provide some relief by stretching tight muscles and ligaments.
6. Instruct the patient that as the pain eases, he/she should move their muscles and joints past the point of the initial restriction.
7. Instruct the patient in proper body mechanics, as this is the key to recovering from acute back and neck pain. Maintaining the normal curvature of the spine by supporting the hollow of the low back and practicing good posture will help decrease the overall recovery time.
8. Review standing, sitting, moving, reaching, and lying posture.
9. When the pain has subsided encourage the patient to continue on a gentle exercise program as detailed by a physical therapist or healthcare provider.

Chronic Pain
1. The most common forms of pain:
   a. Headache: tension headache, vascular headache, migraine
   b. Low back pain: sciatica; leg pain due to an irritated nerve in the spine
   c. Cancer pain: constant pain caused by tumors compressing the spinal nerves, or scarring from radiation therapy
   d. Arthritis pain: osteoarthritis, rheumatoid arthritis
   e. Neurogenic pain: trigeminal neuralgia, shingles, amputated “phantom” pain
   f. Psychogenic pain: unexpressed distress that turns into physical pain
2. There are numerous approaches to chronic pain management depending on the specific type of pain and severity as reported by the patient.
3. Pain management uses an integrated approach of physical, emotional, intellectual and social skills. This may include exercise, physical therapy, medication, relaxation, acupuncture, behavior changes, biofeedback, hypnosis and counseling.
4. When a patient uses pain management techniques, he/she is able to stay in control of his/her health.
5. These techniques also help the brain produce its own pain medications called endorphins, which literally, mean “morphine within.” A total pain management program should be individualized for the patient by their healthcare provider or physical therapist.
6. Follow the instructions provided by the physical therapist making every effort not to increase discomfort.

AFTER CARE:
1. Make sure the patient is comfortable.
2. Use alcohol-based hand rub for hand hygiene.
REFERENCES:

PURPOSE:
To relieve pain or keep the pain from getting worse by reducing tension in the muscles.

CONSIDERATIONS:
1. Understand that the patient’s ability to relax may vary from time to time and that relaxation cannot be forced.
2. It may take up to two weeks to feel the first results of relaxation.
3. The patient may try several relaxation methods until he/she finds the one that works.
4. Stick with the same method so that it becomes easy and routine for the patient. The patient should use it regularly for at least 5 to 10 minutes twice a day.
5. Instruct the patient to relax any tense muscles. They can use a quick technique such as inhale/tense or exhale/relax, described below.
6. If the patient has any lung problems, then healthcare provider clearance is recommended.

EQUIPMENT:
Relaxation tapes: There are commercial relaxation tapes available, ask the doctor or nurse for a recommendation. These tape recordings provide step-by-step instructions in relaxation techniques.

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain procedure to patient.
3. Review and follow the nurse’s or therapist’s instructions.

Position Patient for Comfort
1. Relaxation may be done sitting up or lying down. Choose a quiet place whenever possible.
2. Ask the patient to close his/her eyes and do not cross arms and legs because that may cut off circulation and cause numbness or tingling.
3. If the patient is lying down, be sure they are comfortable. Put a small pillow under the neck and under the knees or use a low stool to support the lower legs.

Visual Concentration and Rhythmic Massage
1. Ask the patient to open eyes and stare at an object, or close eyes and think of a peaceful, calm scene.
2. With the palm of their hand, ask them to massage near the area of pain in a circular, firm manner.
3. Instruct them to avoid red, raw, swollen or tender areas.
4. Instruct the patient in: Inhale/tense, exhale/relax:
   a. Breathe in (inhale) deeply. At the same time, tense muscles or a group of muscles. For example, squeeze eyes shut, frown, clench your teeth, make a fist, stiffen arms and legs, or draw up arms and legs as tightly as possible.
   b. Hold breath and keep muscles tense for a second or two.
   c. Now instruct the patient to let go. Breathe out (exhale) and let body go limp.
5. Instruct the patient in slow rhythmic breathing:
   a. Have the patient stare at an object or close eyes and concentrate on breathing or on a peaceful scene.
   b. Have patient take a slow, deep breath and, as patient breathes in, ask them to tense muscles (such as arms).
   c. As they breathe out, ask them to relax their muscles and feel the tension draining.
   d. Ask them to remain relaxed and begin breathing slowly and comfortably, concentrating on breathing, and taking about 9 to 12 breaths per minute. Be sure the patient does not breathe too deeply.
   e. The patient should maintain a slow, even rhythm as they breathe out. They can say silently to self, “In, one, two; out, one, two.” It may be helpful at first if someone counts out loud for them. If the patient ever feels out of breath, instruct them to take a deep breath and then continue the slow breathing exercise.
   f. Each time they breathe out, they should feel that they are relaxing and going limp.
   g. If some muscles are not relaxed such as the shoulders, ask the patient to tense as they breathe in and relax them as they breathe out. They need to do this only once or twice for each specific muscle group.
   h. Continue slow, rhythmic breathing for a few seconds up to 10 minutes, depending on patient need.
   i. To end the slow rhythmic breathing, ask the patient to count silently and slowly from one to three. Open their eyes. Have them say silently: “I feel alert and relaxed.” Have patient begin moving slowly.
6. Other methods that can be added to slow rhythmic breathing:
   a. Imagery. Listen to slow, familiar music through an earphone or headset.
   b. Progressive relaxation of body parts. Once the patient is breathing slowly and comfortably, they may relax different body parts, starting with their feet and working up to their head.
   c. Encourage the patient to think of words such as limp, heavy, light, warm or floating.
   d. Each time they breathe out, they can focus on a particular area of the body and feel it relaxing.
   e. Try to imagine that the tension is draining from that area. For example, as they breathe out, they should feel their feet and ankles relaxing; then the next time they breathe out, they should feel their calves and knees relaxing, and so on up their body.
Imagery
1. Ask the patient to close the eyes, breathe slowly and relax.
2. Encourage them to concentrate on breathing slowly and comfortably from the abdomen.
3. As they breathe in, say silently and slowly to self: “In, one, two.” As the patient breathes out, have them say: “Out, one, two.” They should breathe in this slow rhythm for a few minutes.
4. Have the patient imagine a ball of healing energy forming in the lungs or on chest. It may be like a white light. It can be vague. It does not have to be vivid. Imagine this ball forming, taking shape.
5. When ready, have the patient imagine that the air he/she breathes in blows this healing ball of energy to the area of their pain. Once there, the ball heals and relaxes.
6. When they breathe out, have the patient imagine that the air blows the ball away from the body. As it goes, the ball takes the pain with it. They should not blow as they breathe out but should breathe out naturally.
7. Have the patient repeat the last two steps each time they breathe in and out.
8. They may imagine that the ball gets bigger and bigger as it takes more and more discomfort away from their body.

To end the imagery, have the patient count slowly to three, breathe in deeply, open eyes, and say silently: “I feel alert and relaxed” and begin moving about slowly.

AFTER CARE:
1. Make sure the patient is comfortable.
2. Use alcohol-based hand rub for hand hygiene.

REFERENCES:

**Muscular – Passive Range of Motion (PROM) SECTION: 6.08**

**Purpose:**
To move the patient's joints through available joint motion without causing pain. This procedure promotes good circulation, flexibility and mobility of joints and prevents shortening of muscles, tendons and ligaments.

**Considerations:**
1. The patient should never perform Passive Range of Motion (PROM) without specific instructions from the nurse or therapist.
2. Never move a joint beyond the point of pain. Pain is a warning sign and it should be considered an indicator to impending problems. Report any new or unusual patient pain to your supervisor.
3. Exercises are performed using the flat part of the hand and fingers to support the patient's extremities. DO NOT grip with your fingertips due to pressure sensitivity and risk of injury by fingernails.
4. Follow a logical sequence during the exercises so that each joint is exercised. For instance, start at the head, and work down to the feet.
5. Slow, steady and rhythmic movement of a tight joint will help the muscle relax and may increase the available joint range.
6. Include the caregiver in the PROM exercise program so they can observe and learn the process.
7. All PROM exercises should be performed with the uninvolved, as well as with the involved extremity.
8. All exercises are performed with the patient lying flat on the back with the arms at the sides.
9. Contraindication: PROM should not be performed on joints that exhibit unusual swelling or redness. Report signs of swelling or redness to your supervisor.
10. Closely observe the patient for adverse reactions such as pain, shortness of breath, swelling or redness. Report any adverse reactions to your supervisor.
11. PROM does not involve stretching of the muscles or joint capsules.

**Equipment:**
None

**Procedure:**
1. Adhere to Standard Precautions.
2. Explain the procedure to patient.
3. Review the specific PROM program for the patient. The exercises to be performed will be assigned by number.
4. Raise the bed to a horizontal position which is comfortable for your height to reduce back strain.
5. Lower the side rail on the side you are working and remove any obstacles such as a trapeze or other equipment.
6. Use a draw sheet to move the patient close to you.
7. Perform each exercise 8 to 10 times and 2 to 3 sets as tolerated by the patient.

**Exercise 1 – Shoulder: Flexion**
1. Starting position: Hold the wrist with one hand. With the other hand, support the elbow joint to stabilize the joint. Turn the palm inward, facing the body.
2. Lift the patient's arm up from the side of the body.
3. Carry the arm slowly and gently toward the patient's head as far as it will go without hurting the patient.
4. The arm may be bent at the elbow if the headboard of the bed will not permit the arm to be carried all the way back.
5. Carry the arm back to the starting position and repeat the exercise.

**Exercise 2 – Shoulder: Abduction**
1. Starting position: Hold the patient's hand with your other hand, support the elbow joint to stabilize the joint.
2. Keep the patient's arm straight, and move it away from the body, out to the side.
3. Continue to move the arm slowly outward then toward the head as far as it will go without hurting the patient, allowing the arm to rotate outward as you move the arm outward. Return the arm to the starting position and repeat the exercise.

**Exercise 3 – Shoulder: Horizontal Abduction**
1. Starting position: Place one hand under the patient's elbow.
2. Hold the patient's hand with your other hand.
3. Lift the arm and carry it across the patient's chest toward the opposite shoulder.
4. Return the arm to the starting position and repeat the exercise.

**Exercise 4 – Shoulder: Rotation**
1. Starting position: Move the arm away from body until the elbow is at shoulder height; bend the elbow.
2. Place one hand under the elbow and the wrist with the other hand.
3. Move the forearm and hand slowly, and gently back toward the head as far as possible without causing pain, until the hand points up toward the head. Keep supporting the elbow gently against the mattress. Then turn the arm back down so that the hand points to the foot.
4. Return the arm to the starting position and repeat.

**Exercise 5 – Elbow: Flexion and Extension**
1. Starting position: Hold the upper arm with one hand and the forearm with the other.
2. Bend the elbow so that the hand moves toward the shoulder.
3. Return to the starting position and repeat.

**Exercise 6 – Forearm: Pronation and Supination**
1. Starting position: Place one hand on the patient's elbow and your other hand on the patient's hand.
2. Rotate the forearm and hand so that the palm of the hand is toward the patient's face.
3. Rotate the forearm and hand so that the palm of the hand is away from the patient's face, and repeat. Be sure to rotate the forearm and not the hand.

**Exercise 7 - Wrist and Finger Flexion: Extension**
1. Starting position: Hold the patient's forearm above the wrist with one hand and the patient's hand with your other hand.
2. Keep the fingers of the patient's hand straight. Bend the hand backward.
3. Straighten the hand back to the starting position.
4. Now bend the hand forward, closing the fingers to make a fist. Open the hand and repeat the exercise.

**Exercise 8 - Finger Abduction - Adduction Thumb – Opposition: Reposition**
1. Hold the patient's finger straight with one hand. With your other hand, bend the patient's thumb into the palm of his hand toward the base of the little finger.
2. Pull the thumb back so that it points away from the hand, and repeat the exercise. This preserves the web space between thumb and hand.
3. Holding the patient's hand in the starting position, separate each finger to preserve its web space.
4. Move the thumb in a circle.

**Exercise 9 – Hip: Knee Flexion and Extension**
1. Starting position: Cradle the leg by placing one hand under the patient's knee and your other hand under the heel of the foot.
2. Lift the leg, bend it at the knee toward the chest with the kneecap pointed toward the ceiling.
3. Move the knee slowly toward the patient's head as far as it will go without causing pain to the patient.
4. Lower the leg to the starting position and repeat the exercise.

**Exercise 10 - Hip Flexion**
1. Starting position: Support the knee and heel as in exercise nine.
2. Slowly raise the leg, keeping the knee straight.
3. Only lift the leg as high as you can while maintaining a straight knee.
4. If there is any sign of discomfort DO NOT go any higher.
5. Lower the leg to the starting position and repeat the exercise.

**Exercise 11 - Hip Abduction: Hip Adduction**
1. Starting position: support the knee and heel as in exercise nine. Keep the knee and foot straight, pointing up toward the ceiling.
2. Lift the leg 1 to 2 inches off the bed.
3. Move the leg out to the side without causing pain to the patient.
4. Move the leg back until it touches the other leg.

**Exercise 12 - Hip Internal and External Rotation**
1. Starting position: Place one hand just above the knee and one hand below the knee.
2. Roll the leg so the knee points toward the other leg.
3. Roll the leg so the knee points away from the other leg.

**Exercise 13 - Dorsi and Plantar Flexion**
1. Starting position: Support the forefoot with the hand.
2. Move the patient's forefoot toward the head and pointing the forefoot downward.

**Exercise 14 - Foot Inversion and Eversion**
1. Starting position: Place one hand on the leg above the ankle to stabilize the leg. Place the other hand under the ball of the foot.
2. Turn the whole foot outward.
3. Turn the whole foot inward. Return to starting position and repeat the entire exercise.

**Exercise 15 - Toe Extension and Flexion**
1. Starting position: With one hand, gently grip the foot at the arch and with the other hand, place your fingers on the patient's toes.
2. Pull up on the toes.
3. Push down on the toes. Return to the starting position and repeat the entire exercise.

**AFTER CARE:**
1. Return the bed to the lower position.
2. If side rails have been lowered, return them to their raised and locked position.
3. Return the equipment to its original position.
4. Document in patient's record:
   a. Extremity(ies) ranged.
   b. Number of times PROM was performed.
   c. Patient's response to procedure.
5. Inform supervisor of any change in the patient's condition including:
   a. Increased difficulty in performing the exercises.
   b. Patient's noncompliance with exercise program.
   c. Adverse reactions: pain, swelling, shortness of breath.

**REFERENCES:**
Muscular – Positioning for Prevention of Contractures

SECTION: 6.10
Strength of Evidence Level: 3

PURPOSE:
To prevent contractures, deformities and pressure ulcers.

CONSIDERATIONS:
1. The patient and caregiver should be instructed in proper technique for positioning and support for all parts of the body.
2. Turn the patient frequently at a minimum of every 1 to 2 hours. Patient should lie on alternating sides and on the abdomen at various intervals during the day.
3. Always consider postural alignment, distribution of weight, stability, comfort and pressure relief when positioning a patient.
4. Encourage frequent skin inspection and proper care for the prevention of decubiti.
5. Support weak extremities with pillows after turning or transferring the patient.
6. Prior to making position changes, check the patient's chart for positioning precautions.
7. Distribute weight evenly to avoid pressure on bony prominences.

EQUIPMENT:
Firm bed or firm chair with high back and arm rests
Several firm pillows (both large and small)
Bath towel or small sheet blanket for towel roll
Wash cloth and rubber band or tape for hand roll
Foot board (cardboard box or pillows may be substituted)

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain the procedure to patient.
3. To position the patient on his/her back:
   a. Place flat pillow under the patient’s head.
   b. Place a towel roll along the thigh, from above the hip to below the knee, to correct external rotation of the hip.
   c. Support feet in a dorsiflexed position to prevent foot drop. Loosen the top sheet so that pressure is removed from the toes.
   d. Be sure the patient's heels are off of the mattress with either heel protectors or a flat pillow placed under both calves.
   e. Place the upper extremity on a moderate size pillow at side and position the fingers around the hand roll to raise the wrist slightly.
   f. A small pillow may be placed under the knees to prevent back strain unless contraindicated.
4. To position the patient on his/her abdomen:
   a. Place a flat pillow under the abdomen to flatten the back. The exact positioning may be adjusted for the patient's comfort; i.e., under the lower rib cage for large-breasted females.
   b. Place a pillow or towel under the ankles to relieve tension behind the knees and to prevent pressure on the toes, or the patient may slide down to allow the toes to fit over the edge of the mattress.
   c. Place one arm down by the patient’s side and the other bent by the patient’s head. The position of the arms may be varied depending on the patient's shoulder range of motion and comfort.
5. To position the patient on his/her side:
   a. Place a small pillow under the head. Keep the head in alignment with the spine.
   b. Turn the patient on his/her side and place a pillow between the legs. The top leg should be flexed at the knee and well supported on the pillow.
   c. Rest the top arm on a pillow at the same height as the shoulder joint with the elbow slightly bent.
   d. Place rolled pillows at the back and/or chest for support.
6. To position the patient in a chair, try to maintain the 90/90/90 position:
   a. Place arm rests or pillow supports under the arms, if needed. This is especially important for a weak upper extremity.
   b. Place the patient's feet flat on the floor or on the foot rests of the wheelchair.
   c. Place a small pillow at the patient's back for comfort.

AFTER CARE:
1. Document in patient’s record:
   a. Positioning done; i.e., patient positioned on right side.
   b. Observations of patient.
2. Report any changes in the patient's condition to supervisor.

REFERENCES:
Muscular – Resistive Exercise

Strength of Evidence Level: 1

POURSE:
Resistive exercise strengthens bones, builds muscle strength, prevents and treats coronary heart disease and improves range of motion and endurance.

CONSIDERATIONS:
1. Observe the patient for signs of poor tolerance to active exercise due to cardiovascular or pulmonary diagnoses.
2. Joint motion may be limited by chronic disease and motion should be limited to available range of motion.
3. Exercises can be modified to be performed sitting or lying on the back.
4. Resistive exercises can be provided through manual resistance supplied by the clinician or mechanically with the use of equipment such as dumb bells, resistive bands or ankle weights.
5. The patient should never hold their breath while performing resistive exercise.
6. The amount of resistance applied should be carefully monitored in those with osteoporosis.
7. Resistive exercise is contraindicated if a joint/muscle is inflamed or swollen.
8. Severe pain [Note: greater than 7/10] is a contraindication for resistive exercise.

EQUIPMENT:
Dumb bells, resistive bands or ankle weights

PROCEDURE:
1. Monitor vital signs prior to and following exercise.
2. Remove any obstacles to free movement such as bed rails, trapeze or equipment.
3. Expose only the body parts that are currently exercising.
4. Review the exercise program with the patient prior to initiating the program.
5. The patient performs each exercise 8 to 10 times for 2 to 3 sets as tolerated by fatigue and vital signs.
6. Applying mechanical resistance:
   a. Give the patient a mechanical device that is just light enough to allow movement through the entire available range of motion.
   b. Follow the instructions for active exercise while the mechanical device provides the resistance.
7. Applying manual resistance:
   a. Give resistance in the opposite direction of movement.
   b. Stabilize the joints not involved in a movement, as needed.
   c. Apply enough resistance to allow motion through the entire available joint motion without causing pain.
   d. Follow with the following exercises for manual resistance.

Exercise 1 – Shoulder Flexion – Extension
1. Leading with the thumb pointing upward, the patient slowly raises the arm overhead.
2. Resistance is applied downward at the elbow as the arm raises and resistance is applied upward from under the elbow as the arm lowers.

Exercise 2 – Shoulder Abduction – Adduction
1. With the palm facing upward, the patient slowly moves the arm away from the body in an arch toward the head.
2. Resistance is applied inward at the elbow as the arm moves away from the body and outward as the arm moves back in toward the body.

Exercise 3 – Shoulder Horizontal Adduction – Abduction
1. With the palm facing upward, the patient slowly reaches across the chest toward the opposite shoulder.
2. Resistance is applied outward at the elbow as the arm moves across the body and inward at the elbow as the arm moves back toward the side of the body.

Exercise 4 – Rotation
1. Patient places the elbow at shoulder height.
2. Patient slowly moves hand backward so the fingers point toward the head; resistance is applied downward toward the feet with pressure against the forearm.
3. Patient then rotates the arm downward so the fingers are pointing toward the foot; resistance is applied upward toward the head with pressure against the forearm.

Exercise 5 – Elbow Flexion and Extension
1. Patient bends the elbow so the fingers point toward the head; resistance is applied toward the feet against the forearm.
2. As the forearm returns to the side of the body, resistance is applied upward toward the head against the forearm.

Exercise 6 – Forearm Pronation and Supination
1. Patient slowly turns palm upward while the clinician resists at the wrist with a downward motion. The patient slowly rotates the palm downward while the resistance is applied upward at the wrist.

Exercise 7 – Wrist and Finger Flexion – Extension
1. The clinician rests his/her hand upon the top of the patient’s hand. With the palm down, the patient slowly straightens the fingers and bends the hand upward toward the head. The clinician applies resistance downward to the back of the hand.
2. The patient then slowly closes the fist and bends the hand downward while the clinician resists the formation of a fist.
Muscular – Resistive Exercise

Strength of Evidence Level: 1

Exercise 8 – Finger Abduction – Adduction, Thumb Opposition – Reposition
1. The patient slowly moves the fingers apart and together while the clinician resists the motion.
2. The patient slowly moves the thumb away from the hand and back in toward the pinky finger while the clinician resists the motion.
3. The patient moves the thumb in a circle while the clinician resists the motion.

Exercise 9 – Hip and Knee Flexion, Knee Extension
1. The patient slowly bends the hip and knee toward the head while resistance is applied in a downward motion just above the knee.
2. The patient slowly returns the leg downward, straightening the knee as far as possible while resistance is applied from behind the knee in a direction toward the head.

Exercise 10 – Hip flexion
1. The patient slowly raises the leg, keeping the knee straight at all times; resistance is applied downward at the knee.
2. Return the leg to the resting position while resistance is applied upward from behind the knee.

Exercise 11 – Hip Abduction – Adduction
1. The patient slowly moves the leg away from the body while resistance is applied inward at the knee.
2. Slowly return the leg to the resting position while resistance is applied outward at the knee.

Exercise 12 – Hip Internal – External Rotation
1. The patient slowly rolls the legs so the toes point inward while the clinician gives an outward resistance at the knees.
2. The patient slowly rolls the legs so the toes point outward while resistance is given inward at the knee.

Exercise 13 – Dorsiflexion – Plantar-flexion
1. The patient slowly pulls the forefoot toward the head while resistance is applied downward on the top of the forefoot.
2. The patient slowly points the forefoot downward while resistance is applied upward on the ball of the foot.

Exercise 14 – Foot – Inversion and Eversion
1. The patient slowly turns the feet inward while resistance is applied outward.
2. The patient slowly turns the feet outward while resistance is applied inward.

Exercise 15 – Toe – Extension and Flexion
1. The patient slowly pulls the toes upward, spreading the toes apart while resistance is applied downward on the toes.
2. The patient slowly points the toes downward while an upward resistance is applied to the toes.

Exercise 16 – Neck Flexion and Extension
1. The patient slowly tucks the chin downward while resistance is applied upward under the chin and then slowly tilts the head backward while resistance is applied behind the head in a forward direction.

Exercise 17 – Neck Rotation
1. The patient slowly turns the head side to side while resistance is applied in the opposite direction by the palm place against the side of the face.

Exercise 18 – Lateral Neck Bending
1. The patient slowly lowers the ear toward one shoulder and then slowly tilts the head toward the opposite shoulder while resistance is applied to the side of the head.

AFTER CARE:
1. Instruct the patient to inform the nurse or therapist of any adverse reactions or unusual pain.
2. Monitor the vital signs and report any adverse findings.
3. Document in the patient’s chart the exercises performed, number of repetitions and tolerance to the exercise.
4. Return any moved equipment, such as bed rail and trapeze, to their original position.

REFERENCES:

PURPOSE:
To reverse the effects of extended joint immobility, increase flexibility of muscles, tendon, ligaments and joint capsules and warm up muscles for activity.

CONSIDERATIONS:
1. Tissue stretching is achieved by applying a force to a body part to achieve tissue lengthening.
2. There are many forms of stretching; the three main forms of stretching used in the homecare setting are active, passive and mechanical stretching.
3. Passive stretching is achieved by placing a body part in a position and maintaining that position with external assistance for a period of time.
4. Active stretching is achieved by independently placing a body part in a position and maintaining that stretch through active muscle contraction.
5. Mechanical stretching is achieved through the use of a mechanical device, such as pulleys or a constant passive motion (CPM) machine. [Note: Refer to the Skeletal section for information regarding the CPM procedures.]
6. Studies show a stretch is most beneficial when the stretch is held for at least 60 seconds.
7. Do not stretch inflamed or infected joints.
8. Create a mild stretching sensation; severe pain should never be experienced.
9. Use caution in patients with osteoporosis and the frail elderly.

EQUIPMENT:
Optional: pulleys, CPM machine

PROCEDURE:
Passive Stretching
1. Position the patient in a comfortable position.
2. Position the bed at a height that is comfortable to the clinician’s height.
3. Explain the procedure to the patient and reinforce the importance of the patient remaining relaxed throughout the session.
4. Remove any obstacles, such as bed rails, equipment and tight clothing, to allow free movement of the extremities.
5. Heat may be used prior to stretching to improve the elasticity of the tissues.
6. Position the hands above and below the joint to be stretched.
7. Move the joint slowly through the available range of motion (ROM) to the point where the clinician feels tissue resistance and then move slightly beyond this point. [Note: See passive range of motion procedure within the Muscular section for information regarding passive movements of limbs.]
8. If joint tension decreases, slowly move the joint a little further.
9. Hold the joint in this position for 30 to 60 seconds.
10. Gradually return the limb to the starting position.
11. Allow the limb to rest prior to repeating the procedure.
12. Repeat the stretch 2 to 3 times.

AFTER CARE:
1. Inform the nurse or therapist of any adverse reactions or unusual pain.
2. Monitor the vital signs and report any adverse findings.
3. Document in the patient’s chart the stretches performed, number of repetitions and tolerance to the stretch.
4. Return any moved equipment, such as bed rail and trapeze, to their original position.

REFERENCES:
Muscular – Weight Bearing Exercises

SECTION: 6.13

Strength of Evidence Level: 1

PURPOSE:
To assist the patient to gain balance, correct the center of gravity, stimulate increased bone density, strengthen the lower extremities and improve mobility, weight shifting and functional activity.

CONSIDERATIONS:
1. If the patient is unable to tolerate weight bearing without reproduction of pain/symptoms, then the patient should be given support, such as a walker, or started in a therapeutic pool.
2. Progress exercises gradually for increased tolerance to exercise.
3. Exercise should be at a level that allows the patient to maintain control at all times.
4. Weight bearing exercises involve all of the muscles and joints of the lower extremities.
5. Weight bearing exercises frequently involve play and therefore are tolerated well with increased compliance.

EQUIPMENT:
Support device as required to maintain balance and safety.
Play equipment as deemed necessary.

PROCEDURE:
1. Monitor the patient’s vital signs prior to and following all exercise.
2. Increase endurance by increasing the amount of time spent on an activity.
Examples of Control and Stability Exercises

Have the patient:
1. Stand erect and shift weight side to side.
2. Stand on one leg for one minute.
3. March in place.
4. Stand and control balance while the clinician gently pushes on the pelvis.

Examples of Closed Chain Exercises
1. With a resistance band looped behind the knee, the patient stands on one leg and bends and straightens the leg.
2. Patient performs squats.
3. Patient performs lunges.
4. Patient performs push-ups.

Examples of Balance Exercises

Have the patient:
1. Stand on a balance board.
2. Participate in sports such as bowling, skiing or racquet sports.
3. Walk heel to toe.
4. Perform cross-over walking.

Examples of Aerobic Exercises
1. Dancing
2. Stair climbing
3. Running
4. Brisk walking

Examples of Exercises that Simulate Functional Activity
1. Walking on uneven surfaces
2. Maneuvering around obstacles
3. Placing objects on a shelf
4. Folding laundry while standing

AFTER CARE:
1. Have the patient inform the nurse or therapist of any adverse reactions or unusual pain.
2. Monitor the patient’s vital signs and report any adverse findings.
3. Document in the patient’s chart the exercises performed, number of repetitions and tolerance to the activity.

REFERENCES:


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