Passive Range of Motion Exercises for the Post-Stroke Right Leg and Foot

Developed by the Northeastern Ontario Stroke Network

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This exercise package was designed to be used by the client’s family/caregiver/support worker to assist in properly carrying out passive range of motion exercises with the client. Selected exercises from this resource are to be provided by a regulated health professional, who has experience and knowledge of the client and who can best determine the appropriate exercises. The authors, contributors and supporting institutions shall not be liable for any damages, claims, liabilities, costs or obligations arising from the use or misuse of Passive Range of Motion Exercises for the Post-Stroke Right Leg and Foot. If you have any concerns while performing any of these exercises, STOP the exercises and consult your health care provider.
Before Getting Started...

Gentle movement of the limb(s) is an important exercise for the stroke survivor if they are not able to move the limb(s) themselves.

Why is this important?
- To prevent stiffness
- To assist with blood flow
- To improve awareness of the leg

Pain and damage to muscles and joints can occur if the gentle limb movement is not done correctly.

Key points to know:
- It is best to have the stroke survivor positioned in a comfortable, relaxed and supported position (support the head with a pillow and the arm with a flat pillow)
- Move any sheets/blankets out of the way so you have a clear area to move in
- Make sure you are comfortable – get in close so that you are not reaching forward and straining your back, place a knee on the bed or adjust the height of the bed if possible
- Support above and below the joint you are moving
- You must support the weight of the leg firmly but do not squeeze tightly
- Keep your movements slow and smooth; the movement should not cause pain
- Do not force the movement if the muscle or joint is stiff – move only as much as the joint and muscle will allow
- Ask the stroke survivor to watch the movements you are doing – we want to keep their brain aware of the limb that is being moved
Stretching the Trunk in Lying

- The stroke survivor is lying on their back with their knees bent and feet flat on the bed
- Place your hands just above both knees
- Gently guide the knees to one side as far as they will let you go, do not force the movement
- Hold for __________ seconds
- Then bring the knees back up and guide to the other side
- Hold for __________ seconds
- Repeat the movement __________ times

Remember:
Make sure the arm is in a good position and not getting caught under the body.

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Stretching the Hamstring Muscle in the Back of the Leg

- The stroke survivor is lying on their back with legs resting flat on the bed
- If you can, get up on the bed with one knee resting on the bed and the other bent with the foot on the bed
- Lift the stroke survivor’s right leg and rest it on your shoulder
- Place your hands, one above the knee joint and one below the knee joint on the front of the leg
- Gently lean forward so that the leg lifts up
- Go only as far as the muscles allow, when you will feel tightness stop
- Hold for ___________ seconds
- Repeat the movement ___________ times

Remember:
Do not force the movement, take it as far up as it will let you and hold.


**Hip Abduction – Moving the Leg Out to the Side**

- Stand at the side of the bed
- Place one hand under the knee joint.
- Place your other hand under the heel of the foot
- Step back and bring the leg out to the side as far as it can comfortably
- Hold ___________ seconds
- Step forward and bring the leg back in
- Repeat the movement ___________ times

Remember:
The leg is heavy, so watch your back, get in close, put a leg up on the bed if needed to get in closer. Shift your weight on your feet when you move, do not twist your back.
Hip Flexion and Extension – Bending the Hip Up and Down

- Place one hand under the thigh just ahead of the knee joint
- Place your other hand under the heel of the foot
- Bend the hip and knee up towards the chest
- Hold __________ seconds
- Bring the leg back down
- Repeat the movement __________ times

Remember:
Do not let the leg flop to the side, keep the movement in a straight line.

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Hip Internal and External Rotation – Turning the Hip In and Out

- The stroke survivor is lying with the leg resting flat on the bed
- Gently hold the thigh above the knee at mid thigh
- The other hand gently holds the leg below the knee
- Turn the thigh in so the foot rolls in
- Hold __________ seconds
- Then turn the thigh out so the foot rolls out
- Hold __________ seconds
- Repeat the movement __________ times

Remember:
The force to roll the leg should come from the hand holding the thigh.
Ankle Dorsiflexion – Bending the Foot Up

- Place your hand under the heel so that you cup the heel
- Let the person’s foot rest on your forearm
- Hold the leg just below the knee to keep the leg from moving
- Apply pressure with your arm against the foot to bend the foot at the ankle
- Hold __________ seconds
- Repeat the movement __________ times
Ankle Inversion – Turning the Foot In

- Place your hand around the foot below the toes
- Support the leg with your other hand holding above the ankle to prevent the leg from rolling
- Apply gentle pressure to turn the foot inward
- Hold __________ seconds
- Repeat the movement __________ times
Ankle Eversion –
Turning the Foot Out

- Place your hand around the foot below the toes
- Support the leg with your other hand holding above the ankle to prevent the leg from rolling
- Apply gentle pressure to turn the foot outward
- Hold for __________ seconds
- Repeat the movement __________ times