

## Determining a Suitable Resistance/Strength Training Program

### There are 3 resistance training programs for

1. people with no physical effects from the stroke
2. people with physical effects from the stroke that **have access** to dumbbells and exercise bands
3. people with physical effects from the stroke that **do not have access** to dumbbells or exercise bands

### Program #1: No physical effects from the stroke:

If you have **not had any physical deficits** from the stroke then please go to the following link on cardiac college

- <https://goo.gl/B5QRP6>
  - A video of this program and a version that you can download can be found at the following web site: <https://goo.gl/LcuU3U> (videos); <https://goo.gl/tGYLq8> (download program).

**Note:** If you are doing the program above, please also read through the resistance training documents included in the stroke section for information specific to stroke.

### Programs for People who have Physical Deficit(s) from the Stroke

We provide you with a package that has pictures of each exercise with a written description for you to follow. It is recommended that in combination with **advice from a health care professional that you invite a family member or friend to help you** with these exercises especially if you have balance and/or movement problems.

The first 3 pages of the program document provide definitions and guidelines on how to perform resistance training safely, how to progress with the exercises so that you continue to benefit, and know what precautions to take.

**Print off the resistance training worksheet** these are numbers 2.b(a) or 2.c(a) in this section before moving on to the next section for program number

- Worksheet RT #2.b(a) (without equipment) if you **do not have access** to hand-held dumbbells and exercise bands.
- Worksheet RT #2.c(a) (with equipment) if you **have access** to hand-held dumbbells and exercise bands

### **Alternative Exercises:**

- The resistance training programs (#2 and #3) have 8 to 9 exercises each.
- You can choose the number of exercises that is most suitable for you.
- After each exercise there is a list of alternative exercises that are easier or harder. These exercises are located on the last pages of the program document. You will choose the one that is most suitable for you.
- If there is no suitable alternative exercise, you may perform the exercise with the non-affected arm and/or leg only.
- The worksheet will help you keep track of the exercises suitable for you.

### **Two Supplemental Exercises:**

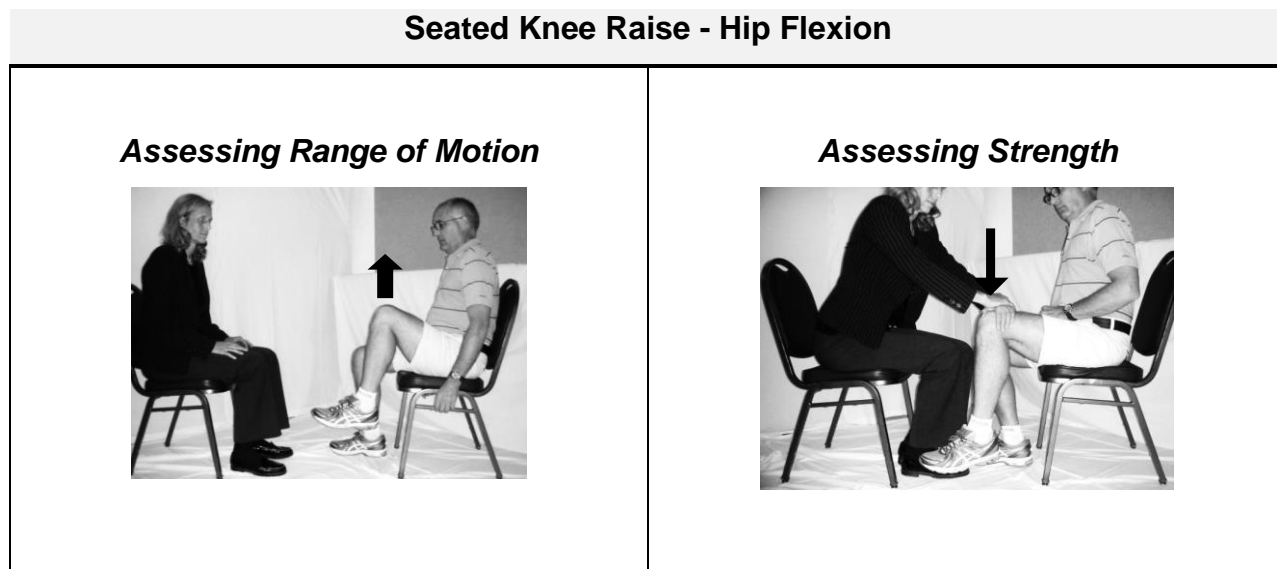
- While the resistance/strength training programs that we provide work most of the major muscle groups of the body, additional individualized exercises are required.
- These exercises target the muscles that have been most affected by the stroke that interfere with activities of daily living such as walking. Not everyone will need to do these.
- Please try the two movements in the pictures below (lifting the knee and lifting the toe on both sides) and record the result in your worksheet.
- Assess to see if there is
  - ✓ Weakness compared to the non-affected limb
  - ✓ the movement is slow and/or not smooth
  - ✓ you are not able to complete the full range of motion
  - ✓ You have to do something extra like leaning to one side to complete the movement

If any of the above is true, then you can either

1. Replace an exercise of your choice from the original document with the supplemental exercise included in this section (or both).
- or
2. Do the supplemental exercise(s) in addition to the ones included in the original document.
    - You need to assess what you are able to manage. You should not be so fatigued at the end of exercise that you are unable to carry out your usual day-to-day activities.

**Assessment #1 Knee Raise:**

**Seated Knee Raise - Hip Flexion**

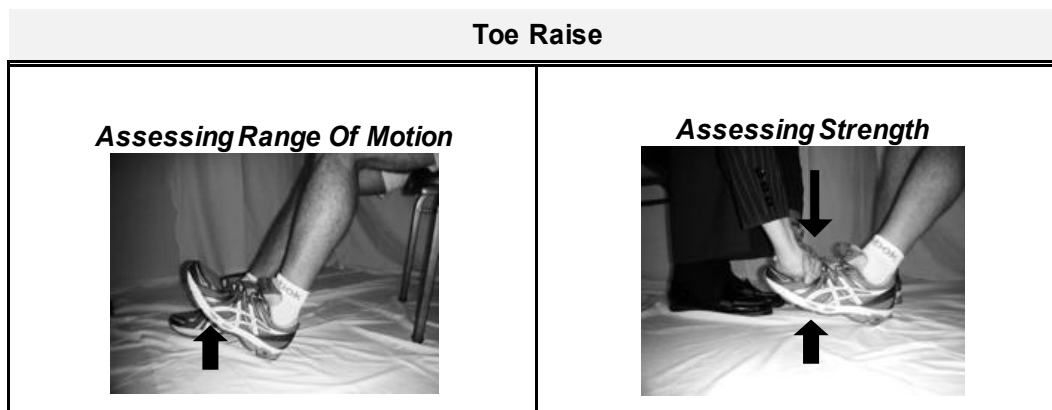


**Range of motion:** Sitting up straight, lift one knee as high as you can and then lower it. Repeat on the other side.

**Strength:** Place your non-affected hand on the thigh, then lift the knee as hard as you can against your hand. Repeat on the other side.

- Poor range of motion compared to the non-affected side
  - Leaning to one side when raising affected knee
  - Slow movement that is not smooth
  - Weakness when compared to the non-affected side
- ✓ If any of the above are positive check off the first box in your worksheet
- If you find any deficits in this movement, you may notice how it affects your walking. You may need to swing your affected leg around to bring it forward when walking.

## Assessment #2: Raising the Toe on the affected side



**Range of motion:** Sitting up straight with your feet flat on the floor as far in front of you as possible. Lift one toe as high as you can and then lower it. Repeat on the other side.

**Strength:** Have someone assist you if the following is too difficult. Place your non affected hand on the top of the foot, then lift the toe as hard as you can against your hand. Repeat on the other side.

### **Issues to Look For:**

- Poor range of motion compared to the non-affected foot
- The foot turns in or out when lifting the toe
- Slow movement that is not smooth
- Weakness compared to the non-affected side

✓ If any of the above are positive you will check off the second box of your worksheet

You may also notice that your toe drags and/or foot slaps when you walk or you have to swing your leg around to clear your toe if any of any of the above were positive.

- ❖ Now go to the resistance training program most appropriate for you (#2 - no equipment or #3 - equipment)