

GRASP

Graded
Repetitive
Arm
Supplementary
Program



Exercise manual

Level 3



This research project is funded by UBC and the Heart and Stroke Foundation



Finding answers. For life.

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Welcome to the GRASP Hand & Arm Exercise Program!

The exercises that you will do have been designed specifically for you.

There are lots of benefits to doing these exercises. Research has shown that adding 20 more hours of arm therapy during your hospital stay can:

- Strengthen your weaker arm.
- Improve the range of motion of your weaker arm.
- Improve your ability to use your weaker arm in daily activities.
- Decrease pain in your weaker arm, and Improve life satisfaction.

Your therapist will help you learn the exercise program and check on your progress regularly.

Your therapist will not be doing the exercises with you on a daily basis. Remember this is a **HOMEWORK** based program so **YOU** are responsible for doing your exercises daily.

We hope that your family and friends will support and help you with your exercise program.

We are asking you to do 1 hour of prescribed exercises 7 days a week. You can divide the exercises up into 2 – 30 minute sessions if you want.

We ask that you please check off the exercises that you complete each day on the Log Sheet in your exercise book.

You are encouraged to continue these exercises once you are discharged from the hospital.

Safety

Please tell your therapist as soon as possible if:

- pain stops you from doing your exercises
- you feel so tired after doing your exercises that you cannot participate fully in your regular daily therapy.

We want you to encourage your family to do the exercise program with you. Here are some ways they can be involved:

- some exercises can be done with a partner (these exercises are identified in this manual).
- help you to organize the exercise equipment for quick changes between exercises.
- help you to put exercise equipment away after each exercise is done.
- help you to keep track of the exercises on the daily Log Sheet.
- and most of all help encourage and motivate!

We think you will enjoy this program and we welcome any questions or concerns.

Have fun!

Suggested Equipment required for GRASP Exercises

Level 3

1. Wrist weight - 1lb-2lb
2. Tennis ball
3. Hand gripper – 10-15lb resistance
4. Theraputty – orange or green
5. Knife and fork
6. Target board
7. 2 Cups
8. Towel
9. Own button shirt
10. Small clothes pins
11. Regular size Lego blocks
12. Wooden blocks (squares)
13. Popsicle sticks
14. Paper clips
15. Jar with twist off lid
16. Poker chips - 10

Total Arm Stretch

- Sitting straight in your chair, lean forward over your knees.
- Make sure that your arms hang loosely, in a relaxed stretch.
- You should feel a pull through your shoulders.
- Hold the stretch for a count of 10 and then slowly straighten up.
- Repeat 2 times.



Shoulder Shrug

- Sit in a chair with your arms by your side.
- Make sure your back is touching the back of the chair.

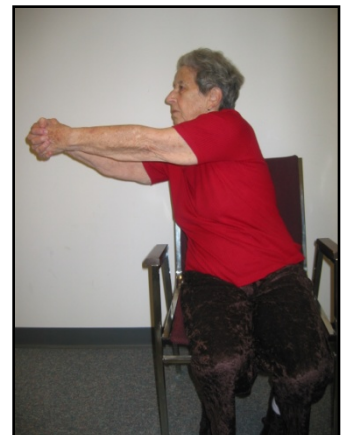
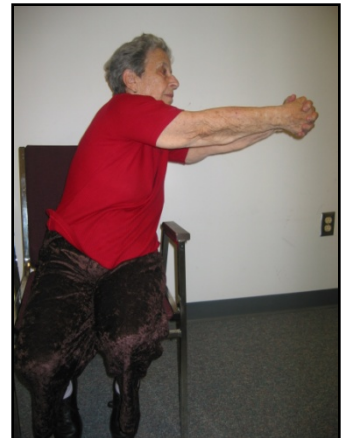
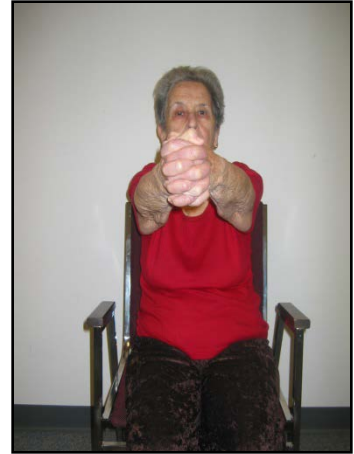


- Raise your shoulders towards your ears for a count of 3
- Return to the starting position.
- Repeat 10 times.



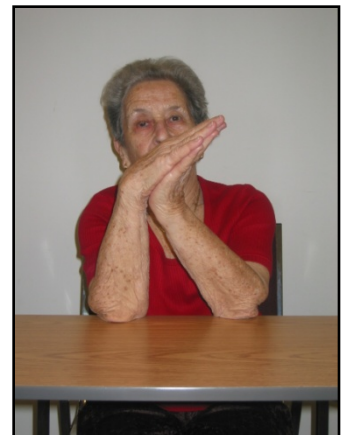
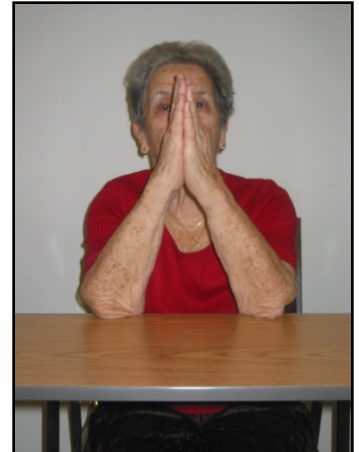
The Twist

- Make sure your back is touching the back of the chair for the whole exercise.
- Clasp your hands together and pull forward until you feel a stretch through your back.
- Turn your body to the left. Hold for a count of 3.
- Turn your body to the right. Hold for a count of 3.
- Repeat 5 times for each side.



Hand and Wrist Stretch

- Place your palms together.
- Push the left hand against the right.
- Hold for a count of 3.
- Push the right hand against the left.
- Hold for a count of 3.
- Repeat 5 times for each side.



Push-ups!

- Place the table against a wall
- Place the palm of your hands on the edge of the table
- Lean your chest towards the table for a count of 5.
- Push away from the table for a count of 5.



- ❑ 2 sets of 8 repetitions
- ❑ 2 sets of 10 repetitions
- ❑ 3 sets of 10 repetitions

Try to put as much weight as you can through your weaker.

One arm push-ups

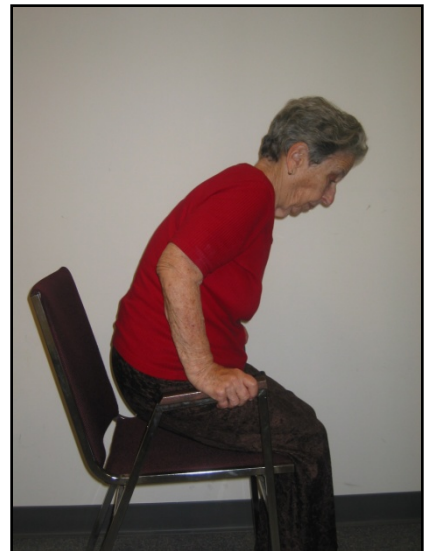
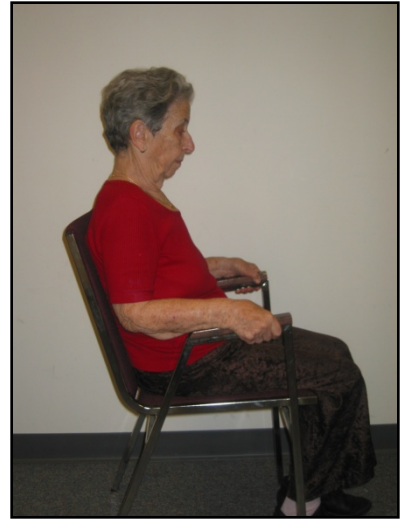
- Place your weaker hand flat on the table. Use your stronger hand to help keep your hand in place.
 - Lean your chest towards the table for a count of 5.
 - Push away from the table for a count of 5.
-
- ❑ 2 sets of 8 repetitions
 - ❑ 2 sets of 10 repetitions
 - ❑ 3 sets of 10 repetitions



Try to put as much weight as you can through your weaker hand

Chair-ups

- Sit in a chair with both your hands on the arm rests.
 - Using your arms NOT your legs, push your body upwards so that your bottom comes off the chair.
 - Hold for a count of 3.
 - Lower yourself for a count of 3.
-
- ❑ 2 sets of 8 repetitions
 - ❑ 2 sets of 10 repetitions
 - ❑ 3 sets of 10 repetitions



Put as much weight as can through your arms NOT YOUR LEGS when you push up.

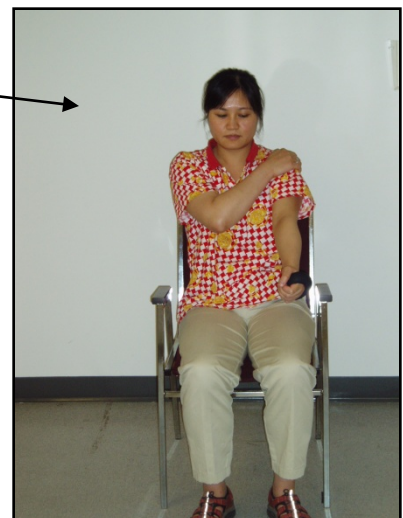
TIPS

The following exercises are for increasing arm strength. If you feel like your arm is tired or stiffening up (hard to move) try the following:

1. take a rest break of 30 seconds between exercises
2. rotate between doing the exercise on your weaker and stronger arm
3. do the exercise without the weight

Shoulder Exercises: Arm to the Front

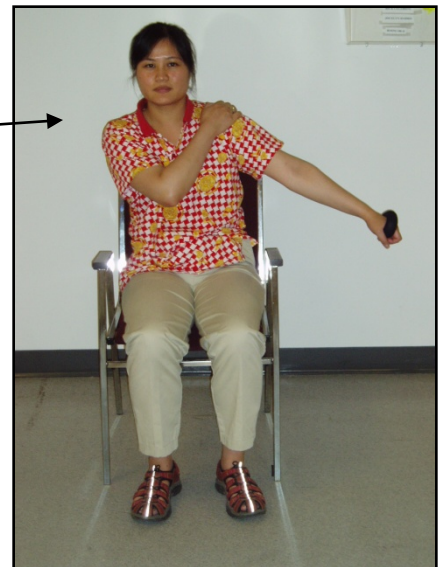
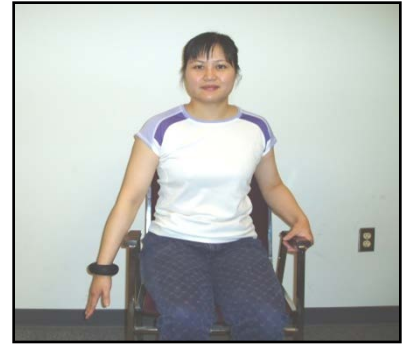
- Place the weight around your weaker wrist or palm
- Raise your arm as high as you can but not higher than your shoulder height, for a count of 3.
- Lower your arm down for a count of 3.
- If you need to, place your stronger hand on your shoulder to help keep your shoulder from hiking up.



- ❑ 2 sets of 8 repetitions
- ❑ 2 sets of 10 repetitions
- ❑ 3 sets of 10 repetitions

Shoulder Exercises: Arm to the Side

- Place the weight around your weaker wrist or palm.
- Raise your arm out to the side as high as you can but no higher than your shoulder for a count of 3.
- Lower your arm down for a count of 3.
- If you need to, place your stronger hand on your shoulder to help keep your shoulder from hiking up.



- ❑ 2 sets of 8 repetitions
- ❑ 2 sets of 10 repetitions
- ❑ 3 sets of 10 repetitions

Elbow Exercises

- Put the weight around your weaker wrist.
- Place your hand, palm up, on the table



- Move your hand towards your shoulder for a count of 3.
- Lower your hand down for a count of 3.



- ❑ 2 sets of 8 repetitions
- ❑ 2 sets of 10 repetitions
- ❑ 3 sets of 10 repetitions

If you cannot raise your arm to shoulder height, raise it as high as you can.

Wrist Exercises – Part 1

- Put the weight around the fingers and knuckles of your weaker hand.
- Put your forearm on the table palm facing down.
- Stabilize your weaker arm with your stronger hand.
- Lift your wrist as high as you can for a count of 3.
- Lower your wrist down for a count of 3.



- 2 sets of 8 repetitions
- 2 sets of 10 repetitions
- 3 sets of 10 repetitions

Wrist Exercises – Part 2

- Keep the weight on your hand.
- Place your arm on the table with your hand over the edge.
- Stabilize your weaker arm with your stronger hand.
- Lift your wrist as high as you can for a count of 3.
- Lower your wrist down for a count of 3.



- ❑ 2 sets of 8 repetitions
- ❑ 2 sets of 10 repetitions
- ❑ 3 sets of 10 repetitions

Total Arm Stretch

- Sitting straight in your chair, lean forward over your knees.
- Make sure that your arms hang loosely, in a relaxed stretch.
- You should feel a pull through your shoulders.
- Hold the stretch for a count of 10 and then slowly straighten up.
- Repeat 2 times.

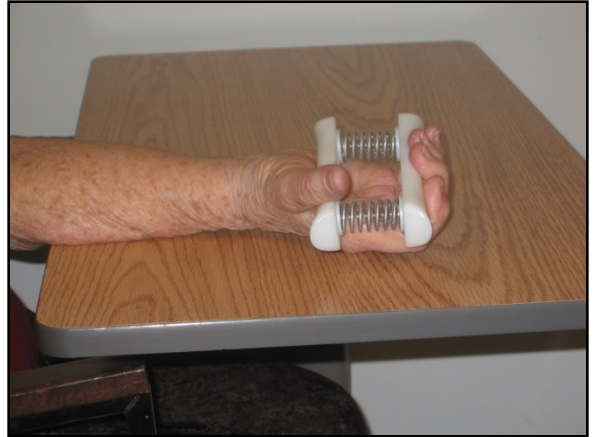


TIPS

- These exercises are for increasing the strength of your hand.
- If you find it is getting hard to open and close your hand after a few exercises here are some tips to follow:
 1. take a 30 second break,
 2. rotate between doing the exercise with your strong and weak hand, and
 3. use the ball instead of the gripper.

Grip Power

- Place your weaker arm on the table.
- Place the gripper in your palm between your knuckles and your thumb pad.
- Squeeze the gripper as hard as you can for a count of 3.
- Relax your hand for a count of 3.

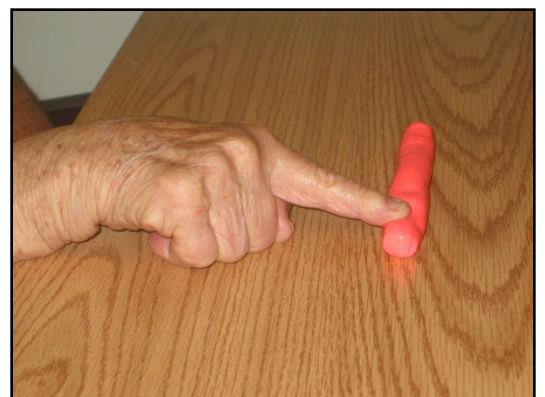
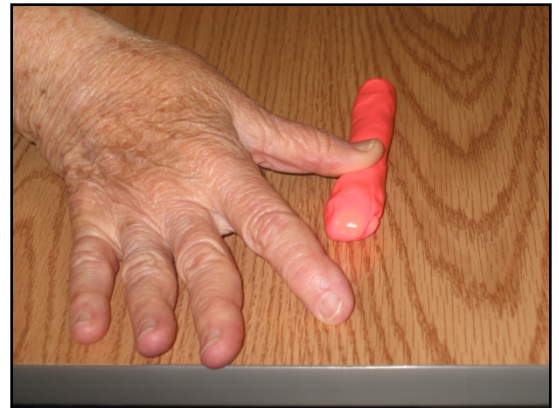


- ❑ 2 sets of 10 repetitions
- ❑ 3 sets of 10 repetitions
- ❑ 4 sets of 10 repetitions

Focus on the opening of your hand

Finger Power

- Place the putty on the table and roll into a thick rope.
- Take each finger of your weaker hand, starting with your thumb, and push into the putty
- Repeat this exercise 3 times



The Twist

- Place the putty on the table and roll into a thick rope.
 - Hold the putty rope in your stronger hand.
 - Using the thumb, index, and middle finger of your weaker hand, twist the putty along the rope.
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- ❑ 2 sets of 8 repetitions
 - ❑ 2 sets of 10 repetitions
 - ❑ 3 sets of 10 repetitions



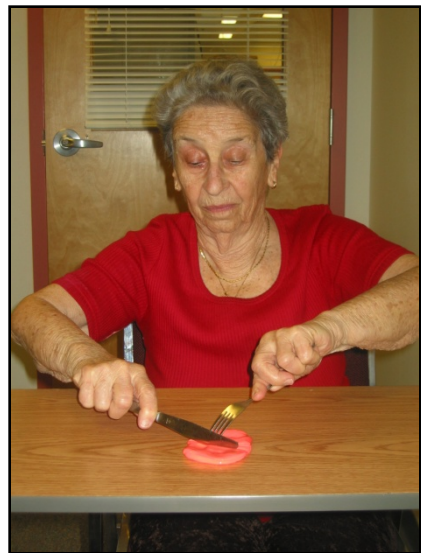
Finger Strength

- Roll the putty into a ball.
- Hold the putty ball in your stronger hand.
- Take one finger at a time, start with your thumb, and push it into the putty ball.
- Repeat 3 times



Cutting

- Take the putty and flatten it on the table.
- Take the knife and fork, as you would usually do, and cut the putty into 4 evenly shaped pieces
- Re-shape into a pancake and repeat 3 times.



TIPS

The following exercises are to help increase range of motion, increase coordination, and increase your ability to do your day to day activities.

If you find your arm is tired or it is stiffening up try the following:

1. take rest breaks of 30 seconds after each exercise
2. rotate between doing the exercise with your weaker and stronger arm/hand
3. decrease the amount of repetitions you do the exercise

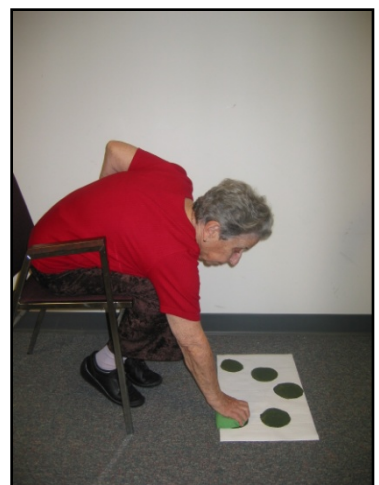
Waiter – Cup

- Place the cup in your weaker hand.
- Place the cup on the 1st dot. Leave the cup on the dot and place your weaker hand in your lap.
- Then reach with your weaker hand to pick up the cup and place it on dot 2. Continue this pattern until you have placed the ball on each dot.
- Once you have finished the arc, start at dot 5 and re-trace your steps.
- Repeat 2 times.
- Then, repeat this as fast as you can 2 times!



Advanced Waiter

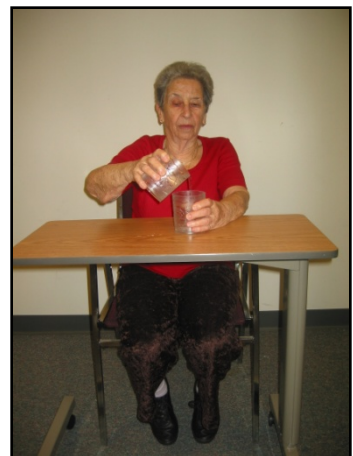
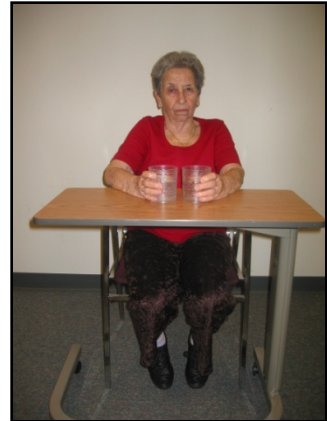
- Place the target board on the ground about 6" in front of your chair.
- Place the ball in your weaker hand.
- Hold on to the arm rest with your stronger hand and lean forward.
- Place the ball on dot 1 - now sit upright with back against chair.
- Lean forward and pick up the ball placing it on dot 2, sit up. Repeat this process for each dot.
- Repeat 3 times.



If at any time you feel dizzy **STOP** and rest for 1 minute. Try again but if you continue to feel dizzy go to next exercise

Pouring

- Place two cups on the table, one half full of water.
- Hold the empty cup with your stronger hand, pick up the cup with water with your weaker hand.
- Pour the water into the empty cup. Pour back and forth 20 times.



Start the ball rolling with a partner

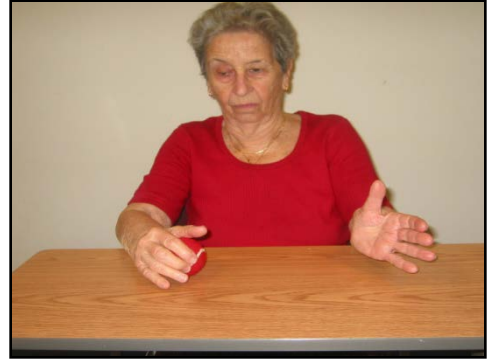
- Sit at each end of the long side of the table
- Roll or push the ball back and forth with your weaker hand
- Roll the ball between you so each person catches the ball 20 times
- Now do it as fast as you can 20 times.



Start the ball rolling

No partner

- Place your hands shoulder width apart.
- Roll or push the ball back and forth between your hands
- Continue until you have caught the ball with your weaker hand 20 times

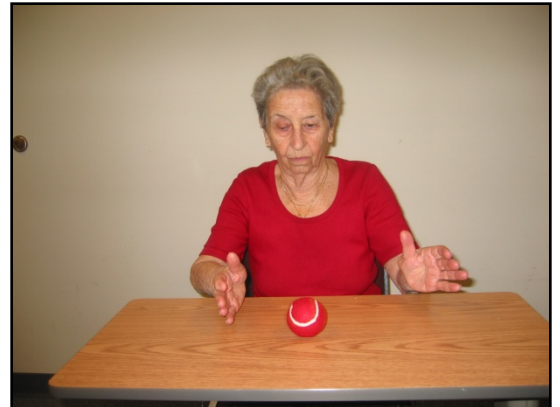


If this is easy for you try rolling the ball faster or placing your hands further apart

Start the ball rolling

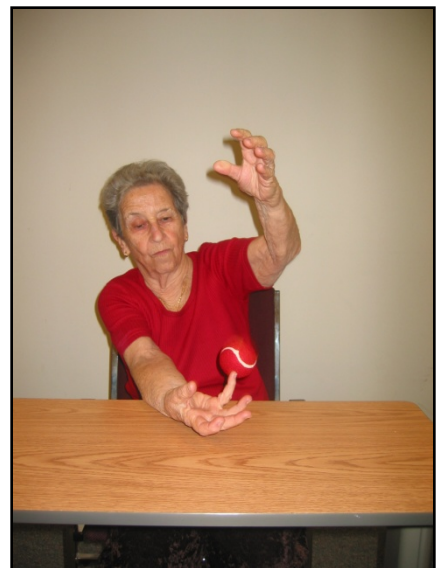
Advanced

- Place your weaker hand in your lap and your stronger on the table.
- Roll or push the ball and try to catch the ball with your weaker hand.
- Continue until you have caught the ball with your weaker hand 20 times.



Drop and Catch

- Place the ball in your stronger hand.
- Raise this arm as high as you can but no higher than your shoulder.
- Place your weaker hand on the table.
- Drop the ball and try and catch it with your weaker hand.
- Repeat 20 times
- Then switch and drop the ball with your weaker hand 20 times



If the ball is hard, use the bean bag instead.

Bouncing Ball with a partner

- Sit at each end of the long side of the table.
- Using your weaker hand bounce the ball to your partner.
- Bounce back and forth, catching the ball with your weaker hand.
- Bounce the ball so that each of you catches the ball 20 times.



If the ball is too difficult, try throwing the bean bag back and forth.

Total Arm Stretch

- Sitting straight in your chair, lean forward over your knees.
- Make sure that your arms hang loosely, in a relaxed stretch.
- You should feel a pull through your shoulders.
- Hold the stretch for a count of 10 and then slowly straighten up.
- Repeat 2 times.



TIPS

These exercises are to help improve your hand skills. You may hear these exercises called fine motor skills in the hospital.

If you find your hand is cramping try the following:

1. take a 30 second rest break
2. rotate between doing the exercises with weaker and stronger hand
3. decrease the repetitions for the exercise.

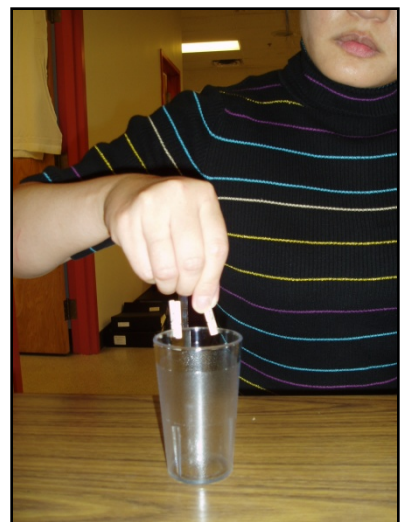
Buttons

- Take a shirt with buttons out of your closet.
- Put it on and do up the buttons.
- Now undo the buttons.
- Repeat this 3 times.

If you do not have a shirt with buttons, please have a family member bring you one from home.

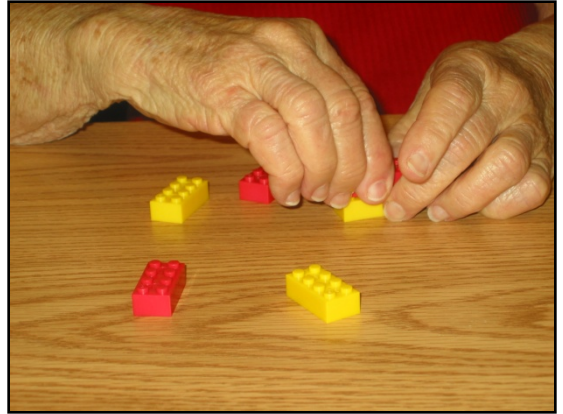
Hanging up the Clothes

- Place a cup on the table.
 - Using your weaker hand, take each peg and clip it on the edge of the cup.
 - Using your weaker hand, take each peg off the cup and place on the table.
-
- ❑ 2 sets of 8 repetitions
 - ❑ 2 sets of 10 repetitions
 - ❑ 3 sets of 10 repetitions



Lego

➤ Using your weaker hand, stack the Lego blocks into a tower



➤ Using your weaker hand, un-stack the tower.



- 2 sets of 8 repetitions
- 2 sets of 10 repetitions
- 3 sets of 10 repetitions

Pick up Sticks

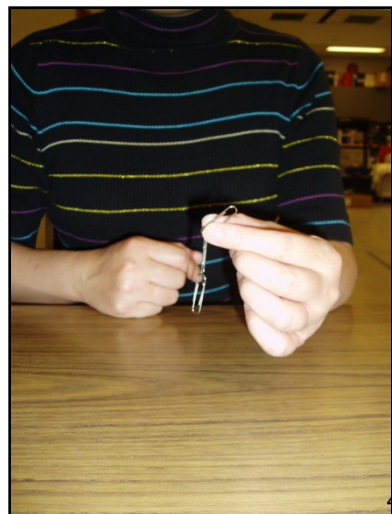
- Put the sticks on the table.
- Using your weaker hand, take each stick and place in the cup.
- Using your weaker hand, take out each stick, one at a time.



- ❑ 2 sets of 8 repetitions
- ❑ 2 sets of 10 repetitions
- ❑ 3 sets of 10 repetitions

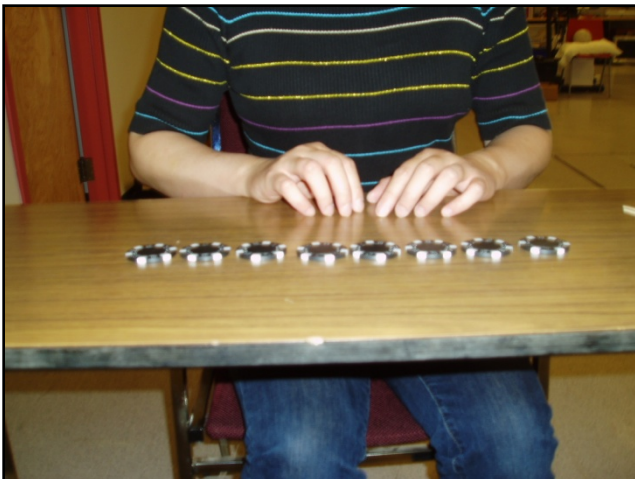
Paper Clips

- Put your paper clips and a cup on the table.
- Using your weaker hand place each paper clip, one at a time, into the cup.
- Now string them together.
 - ❑ 2 sets of 8 repetitions
 - ❑ 2 sets of 10 repetitions
 - ❑ 3 sets of 10 repetitions



Poker Chips

- Put your poker chips on the table in a line.
 - Using your weaker hand flip each chip over one at a time. Do not flip them using the end of the table.
 - Do it as fast as you can.
- 2 sets of 8 repetitions
 - 2 sets of 10 repetitions
 - 3 sets of 10 repetitions



Jars

- Place the jar on the table.
 - Hold the jar with your stronger hand and take off the lid with your weaker hand.
-
- ❑ 2 sets of 8 repetitions
 - ❑ 2 sets of 10 repetitions
 - ❑ 3 sets of 10 repetitions



Drying Off

- Place the towel on the table. Fold in half length wise.
 - Place a hand at each end of the towel and lift the towel over your head so it touches your neck.
 - Move the towel back and forth across your neck and your shoulders. Like you are drying after a shower.
- ❑ 2 sets of 8 repetitions
 - ❑ 2 sets of 10 repetitions
 - ❑ 3 sets of 10 repetitions



Have you completed one hour of exercise?

If it took you less than one hour to complete your exercises, you can start back at the first exercise and continue until at least one hour has passed.

The more you activate your muscles and move your arms/hands, the more your brain re-learns how to control the muscles.