

1. Proficiency Drill Donning

Goal: Become proficient with donning (putting on) your MyoPro 2x Motion G

Instructions:

1. Ensure MyoPro is powered off.
2. Place the MyoPro on a non-slippery, flat surface (e.g. across your lap). Open all straps and remove finger support.
3. Using your helping hand to open the fingers, “grab the green” MyoPro hand bar and push your thumb down into the thumb piece.
4. Find hand strap. Pull down on the strap until it is snug against the top of the hand.
5. Feed the hand strap through the blue ring.
6. Fold the strap on top of the hand and fasten when you find the white line.
7. Push the hand motor closed.
8. Slide the forearm into the black wrist ring and forearm cuff.
9. Pull the upper cuff up to hug the arm.
10. Push the elbow and forearm down into the MyoPro.
11. Feed the forearm strap through the blue ring.
12. Fold the strap and fasten when you find the white line.
13. Move your elbow away from your body. Reach your helping hand under your arm to find the humeral strap.
14. Feed the humeral strap through the blue ring.
15. Fold the strap and fasten when you find the white line.
16. Attach the finger saddle.

No slack in harness straps

Ensure sensors are properly placed and upper cuff is snug



Joint axis aligns with elbow

Ensure fingers & thumb are pushed all the way into hand piece and knuckles are visible

2. Proficiency Drill **Biceps**

Goal: **Become proficient with activating and relaxing the Biceps muscle to flex and extend the elbow**

MyoPro: **Biceps mode**

Anatomy: **Biceps**

Instructions:

1. Start position: In Biceps mode, your elbow should start extended (straight).
2. Flex (bend) your elbow:
 - Sit or stand to do this drill. If seated, sit tall in your chair, feet on the ground.
 - Squeeze your biceps to bend your elbow as far as you can.
 - Do not lift or hike your shoulder.
3. Extend (straighten) your elbow:
 - Slowly relax your biceps.
 - The MyoPro will extend your elbow down.

Additional Exercises:

4. Practice bending your elbow and keeping it bent for 2 – 5 seconds before relaxing.
5. Practice this drill with your wrist flexed, in neutral or extended.

1.



2.



3.



3. Proficiency Drill **Close Hand**

Goal: **Become proficient with activating and relaxing the wrist/finger flexors to close and open the hand**

MyoPro: **Close mode**

Anatomy: **Hand/fingers**

Instructions:

1. Start position: In Close mode, your hand should start open.
2. Close your fingers:
 - Focus on bending your wrist towards your body or closing your fingers.
 - Do not lift your arm or use other muscles.
3. Open your fingers:
 - Relax your wrist and fingers.
 - The MyoPro will open your fingers.

Additional Exercises:

4. Practice this drill standing.
5. Practice with your elbow straight and/or bent to 90° (in standby mode).
6. Practice with your wrist flexed, in neutral or extended.
7. Practice with your forearm pronated and supinated.

1.



2.



3.



4. Proficiency Drill **Hand & Elbow** (simultaneous)

Goal: **Become proficient using the upper and lower arm flexors to control the elbow and hand together**

MyoPro: **Biceps & Close modes**

Anatomy: **Biceps & hand/fingers**

Instructions:

1. Start position: Your elbow should start extended and your hand open.
2. Simultaneously close your fingers and flex your elbow:
 - Keep fingers closed while flexing elbow.
 - Bend your elbow as far as possible.
3. Open your fingers while extending your elbow:
 - Slowly relax your fingers & biceps.
 - The MyoPro will open your fingers and extend your elbow.

Additional Exercises:

4. Start with elbow straight and hand open. Bend elbow, this time keeping your hand open.
With elbow still bent, close hand.
Relax (straighten) your elbow, keeping your hand closed.
5. Practice all drills standing.

1.



2.



3.



5. Proficiency Drill **Hand & Elbow (independent)**

Goal: **Become proficient using the upper and lower arm flexors to control the elbow and hand together**

MyoPro: **Biceps & Close modes**

Anatomy: **Biceps & hand/fingers**

Instructions:

1. Start position: Your elbow should start extended and your hand open.
2. Begin by keeping your elbow relaxed (straight) and opening and closing your fingers (x3)
3. Then squeeze your biceps and bend your elbow up as far as possible.
Keeping your elbow bent, open and close fingers (x3).
4. Relax your biceps
 - The MyoPro will straighten your elbow.
5. With your elbow straight, open and close fingers again (x3).

Additional Exercises:

6. Practice all drills with wrist in pronation, supination, and neutral



6. Proficiency Drill **Triceps**

Goal: **Become proficient with activating and relaxing the Triceps muscle to extend and flex the elbow**

MyoPro: **Triceps mode**

Anatomy: **Triceps**

Instructions:

1. Start position: Your elbow will start in a flexed (bent) position.
2. Extend (straighten) your elbow:
 - Sit or stand to do this drill. If seated, sit tall in a chair with your feet flat on the ground.
 - Squeeze your triceps to extend your elbow as far as you can (push down).
 - Do not lift or hike your shoulder.
3. Flex (bend) your elbow:
 - Slowly relax your triceps.
 - The MyoPro will flex your elbow up.

Additional Exercises:

4. Extend your elbow and keep it extended for 2 – 5 seconds.
5. Practice this drill with your wrist flexed, in neutral or extended.
6. If you are able to move your shoulder, practice extending your elbow as you lift your arm (reaching pattern).

1.



2.



3.



7. Proficiency Drill **Open Hand**

Goal: **Become proficient activating and relaxing the wrist and finger extensors to open and close the hand**

MyoPro: **Open mode**

Anatomy: **Hand/fingers**

Instructions:

1. Start position: In Open mode, your fingers should start closed.
2. Open your fingers:
 - Focus on bending your wrist away from your body or opening your fingers.
 - Do not lift your arm or use other muscles.
3. Close your fingers:
 - Relax your wrist and fingers.
 - The MyoPro will close your fingers.

Additional Exercises:

4. Practice this drill standing.
5. Practice this drill with your elbow straight and bent to 90° (in *Standby* mode).
6. Practice this drill with your wrist flexed, in neutral or extended.
7. Practice this drill with your forearm pronated and supinated.

1.



2.



3.



8. Proficiency Drill **Hand & Elbow** (simultaneous)

Goal: Become proficient using the upper and lower arm extensors to control the elbow and hand together

MyoPro: *Triceps and Open modes*

Anatomy: *Triceps and hand/fingers*

Instructions:

1. Start position: Your elbow should start flexed and your fingers closed.
2. Simultaneously open your fingers and extend your elbow:
 - Keep fingers open while extending elbow.
 - Extend your elbow as far as possible.
3. Relax your fingers while relaxing your elbow:
 - Slowly relax your fingers and triceps.
 - The MyoPro will close your fingers and flex your elbow.

Additional Exercises:

4. Start with your arm relaxed (elbow flexed and hand closed).
 - Extend your elbow keeping your hand relaxed (closed).
 - Keeping your elbow extended, open your hand.
 - Relax (flex) your elbow, keeping your hand open.
5. Practice all drills standing.

1.



2.



3.



9. Proficiency Drill **Hand & Elbow** (independent)

Goal: **Become proficient with using the upper and lower arm extensors to control the elbow and hand together**

MyoPro: **Triceps & Open modes**

Anatomy: **Triceps & hand/fingers**

Instructions:

1. Start position: Your elbow should start flexed and your fingers closed.
2. Keeping your elbow relaxed (flexed), open and close your fingers (x3):
Straighten your elbow as far as possible.
3. Keeping your elbow straight, open and close your fingers (x3):
Relax your arm (elbow will flex, hand will close).
4. With elbow back in starting position (flexed), open and close your fingers (x3).

Additional Exercises:

5. Practice these drills standing.
6. Practice these drills with your wrist in pronation, supination and neutral.



10. Proficiency Drills Hand & Elbow

Goal: Become proficient operating the elbow with both Biceps and Triceps
Become proficient operating the hand with both the wrist and finger flexors and extensors
Become proficient operating the elbow and hand together in Dual Modes.

MyoPro: Dual modes

Anatomy: *Biceps, Triceps, & hand/fingers*

Instructions:

1. Elbow only (part 1):
 - Sit in a chair, with your back straight, feet flat on the ground.
 - In *Dual* mode, squeeze your biceps to bend your elbow as far as you can.
 - Do not lift or hike your shoulder.
 - Then squeeze your triceps to extend your elbow as far as you can.
2. Elbow only (part 2):
 - Standing up
 - Squeeze your bicep to bend your elbow to 90* (mid-way) then pause. Continue to squeeze your bicep and bend your elbow to max flexion.
 - Squeeze your triceps to extend your elbow as far as you can.
 - Alternative: Squeeze your bicep to bend your elbow to max flexion. Then squeeze your triceps to straighten your elbow to 90* then pause. Continue to squeeze your triceps to straighten your elbow to max extension.
3. Hand only:
 - In *Dual* mode, focus on bending your wrist towards your body and/or closing your fingers.
 - Then focus on bending your wrist away from your body and/or opening your fingers.

4. Elbow & Hand (part 1):
 - o Simultaneously close your fingers and bend your elbow
 - o Simultaneously open your fingers and extend your elbow
5. Elbow & Hand (part 2):
 - o Keeping your elbow at 90* (bent mid-way), open and close your fingers x3

Additional Exercises:

5. Practice all drills standing
6. Practice all drills with wrist in supination, pronation, and neutral.
7. Simultaneously open your fingers and bend your elbow, then close your fingers and extend your elbow.
8. Dual modes + Shoulder:
 - o Practice bending your elbow then reaching out in front of you while extending your elbow.
 - o Open and close your fingers with arm extended in front of you (reaching pattern).

Advanced Dual Modes

All the exercises listed under Proficiency Drill #10 can be completed in any Dual Mode (Classic, Constant Speed, Proportional or Ramped). It is recommended that users and their therapists follow the order of Dual modes listed below so as to master Dual Mode function. Once the drills are mastered, these modes will be beneficial for functional task practice. Users may find their own preference for which mode to use.

1. Classic or Constant Speed – select a slow motor speed to begin with in Constant Speed mode.
 - a. These modes are best suited to learning the basic movement pattern of Dual Mode.
2. Proportional – motor speed is proportional to the user's effort
3. Ramped – motor speed increases exponentially with user's effort

- a. Proportional and Ramped modes provide more nuanced speed control which can translate into greater functional capacity. They may also be preferred by users with higher spasticity levels and stretch reflexes.