
Welcome to FLEXTEND®!

Congratulations! You are now on your way to taking control and being pain-free again with FLEXTEND...

FLEXTEND provides relief from Carpal Tunnel Syndrome and Repetitive Strain Injuries, correcting the strength/length imbalance between the stronger/overdeveloped muscles that “close” the hand and weak/underdeveloped muscles that “open” the hand. Creating strength equality between these muscle groups decreases pressure on the joints and reduces soft-tissue inflammation, thus helping many types of musculoskeletal disorders affecting the finger, hand, wrist, and elbow region.

FLEXTEND’s Exercise Programs target specific injuries/injury sites using primary and advanced exercises. Choose an exercise program based on your injury and/or symptoms. Once you become familiar with the program, you will find the exercises quick and easy to perform in just minutes a day!

Using FLEXTEND provides long-lasting results so you can continue doing the things you love!

“With FLEXTEND®, YOUR HEALTH is in YOUR HANDS...”



www.flexextend.com 1-888-274-5444 Fax: 1-541-504-1637

INDEX

Safety Precautions.....	2
Parts and Accessories.....	2
Left-Hand Instructions.....	2
Choosing the correct fulcrum point (before assembly).....	3

Assembly

Step 1: Place the Orthotic Glove.....	4
Step 2: Place the Arm Strap.....	4
Step 3: Connect the Resistance Band and Band Clasp.....	4
Step 4: Attach the Resistance Band(s).....	4

The *FLEXTEND*[®] System

Wearing the Orthotic Glove and Arm Strap.....	6
Placing the Arm Strap.....	6
Arm Positioning.....	7
Arm Strap Positioning.....	7
Increasing/Decreasing Resistance Band Tension.....	7
Understanding Fluid Movement.....	7
Flexion and Extension.....	8
Spreading/Splaying.....	8
Resting (between sets).....	8
Adjusting Resistance.....	8
Using the Progress Chart.....	8

Exercise Precautions

Stretching.....	8
Residual Soreness.....	8
Hyper-Extension.....	9
Muscle Rebounding.....	9
Acute Injuries.....	9
Chronic Injuries.....	9
Changing the Resistance Band(s).....	9

INDEX

<i>FLEXTEND</i> [®] Exercise Programs	10
Carpal Tunnel Syndrome	10
Repetitive Strain Injury.....	12
Lateral Epicondylitis (Tennis Elbow).....	14
Medial Epicondylitis (Golf Elbow)	16
Cubital Tunnel Syndrome	18
Stenosing Tenosynovitis (Trigger Finger)	20
De Quervain’s Syndrome (Thumb and Wrist).....	22
Guyon’s Syndrome (Little Finger and Wrist).....	24
Thumb, Little Finger and Wrist.....	26
General Hand Strengthening	28
Maintenance Exercise Programs.....	29

FLEXTEND[®] **Exercises**

Palm-Up Elbow Moving.....	30
Palm-Up Isolated	31
Thumb-Up Elbow Moving	32
Thumb-Up Isolated	33
Palm-Down Isolated	34
Pronation	35
Supination	36
Thenar/Index Isolated	37
Thenar/Hypothenar Isolated	38
Wrist Extension.....	39
Single-Finger Isolated.....	40
Five-Finger Isolated.....	41
Ulnar Deviation.....	42
Radial Deviation	43

Physician/Clinical Index	44
Troubleshooting Guide/FAQ.....	46
Progress Chart	48

Order Form

Safety Precautions

Safety Precautions

Consult your Physician before starting any of the listed exercise programs. Bring *FLEXTEND* and Instruction Manual with you to assist your Healthcare Practitioner/Physician in recommending the correct exercise program for your injury and/or condition.

- *FLEXTEND* is for use by adults who have read this instruction manual and understand how to use the *FLEXTEND* System properly.
- **DISCLAIMER:** The *FLEXTEND* system/programs are used to exercise the fingers, wrist, forearm and elbow and are not intended for use as a cure.
- Keep the *FLEXTEND* device and any spare parts out of children's reach.

Note: *FLEXTEND* is NOT machine washable! Hand wash using a warm, damp cloth with a mild liquid detergent. For spills on leather, use damp cloth only followed by a leather cleaner (if necessary). Let dry completely before re-assembling and further use.

Parts and Accessories

FLEXTEND® comes with the following parts and accessories:

- *FLEXTEND*® Orthotic Glove
- *FLEXTEND*® Arm Strap
- Resistance Bands (2 light, 1 heavy)
- Band Clasps (2)
- *FLEXTEND*® Instruction Manual/Treatment Therapy Guide
- *FLEXTEND*® Instructional Video

Left Hand Instructions: For clarity in understanding the Instruction Manual/Treatment Therapy Guide, instructions are based on using the right-hand *FLEXTEND* device. If using the left-hand *FLEXTEND* device, the instructions are exactly the same except where noted.

Choosing the correct fulcrum point

Choosing the correct fulcrum point (before assembly)

The *FLEXTEND*® System has three levels of resistance for matching your current level of strength in the hands and wrist, using the upper and/or lower fulcrum point rings on the Orthotic Glove:

Level 1: The lower-fulcrum point is used for least resistance in cases of severe injury or if experiencing pre-exercise pain symptoms (sharp and/or shooting pains) in the hand or wrist.

- **Positioning one piece of light Resistance Band through the lower-fulcrum point rings provides least resistance.**

Level 2: Considered the primary fulcrum point, the upper-fulcrum point is for regular resistance (used when starting the *FLEXTEND* program.)

- **Positioning one piece of light Resistance Band through the upper-fulcrum point rings provides regular resistance.**

Level 3: The upper *and* lower-fulcrum points are used to increase overall resistance for excellent conditioning and prevention.

- **Positioning one piece of light Resistance Band through the lower-fulcrum point rings, and a second piece of light Resistance Band through the upper-fulcrum point rings provides heavy resistance.**

Caution: DO NOT feed a single piece of Resistance Band through the upper and lower-fulcrum point rings for any reason, as this would impair performing the exercises correctly.

Start out using Level 2* (upper-fulcrum point) assuming regular resistance will work. If the *FLEXTEND* device's resistance is too strong or aggravates an injury, switch down to using Level 1 (lower fulcrum point) for 7-10 days or until performing the exercise program without difficulty is possible.

* stronger individuals should start out using Level 3.

Assembly

Step 1: Place the Orthotic Glove on a flat surface, palm-side facing up.

Step 2: Place the Arm Strap directly beneath the Orthotic Glove, rings facing upward. Line up the Arm Strap rings with the Orthotic Glove's wrist rings.

Right Hand: Position the end of the Arm Strap with pull clasp to the *left* side.

Left Hand: Position the end of the Arm Strap with pull clasp to the *right* side.

Step 3: Connect the Resistance Band and Band Clasp, placing the clasp around one end of the Resistance Band.

Disengaging Band Clasp: Pushing in the button disengages the Band Clasp/releases the Resistance Band.

Engaging Band Clasp: Releasing the button engages the Band Clasp/holds the Resistance Band in place.

Step 4: Attach the Resistance Band(s)

- a) Insert the Resistance Band end (without the clasp) through the Arm Strap's right-side ring.
- b) Insert the Resistance Band through the Orthotic Glove's right-side wrist ring.
- c) Continue to "feed" the Resistance Band up and through the five upper-fulcrum point rings (Level 2), then down through the left-side rings of the wrist and Arm Strap.
- d) Secure the Resistance Band end into the remaining insertion point of the Band Clasp.

FLEXTEND is now assembled!



The FLEXTEND® System

Wearing the Orthotic Glove and Arm Strap

- a) Place the Orthotic Glove (palm facing up) on a flat surface.
- b) Open the Arm Strap using the pull clasp, then pull back enough slack (through strap clip) so the opening becomes big enough for the hand and forearm to fit through. Place the Arm Strap below the Orthotic Glove, making sure the Resistance Bands are parallel between the strap and glove (not twisted or tangled.)
- c) First place your hand through the Arm Strap, then into the Orthotic Glove. Secure the glove's wrist-strap and a comfortable fit.

Placing the Arm Strap

Bend the elbow 90°, closing in the hand and wrist (leaving Arm Strap loose.)

- a) Bring the Arm Strap up past the elbow joint/just below the biceps.
- b) Secure the Arm Strap, making sure it's not too tight (as to cut off circulation) yet not so loose whereas it slides down past the elbow-joint when the arm is straightened.
- c) Adjust the Arm Strap, bringing the rings to the center position/in-line with the wrist rings of the Orthotic Glove.



Arm Positioning

Arm Positioning: The elbow should be at your side, positioned near the abdomen/rib cage area and able to pivot in a normal, relaxed manner. Always keep the hand and wrist away from other body parts (such as the face or hair.)

Arm Strap Positioning: The Arm Strap's primary position is based on the hand being in Palm-Up position, the Arm Strap rings centered (on the front of the forearm) and in-line with the wrist rings of the Orthotic Glove. Primary positioning is used unless a specific exercise requires rotating the Arm Strap clockwise/counter-clockwise.

Increasing/Decreasing Resistance Band Tension: Based on the starting position of each exercise, the Resistance Band(s) should have a slight degree of tension with no visible slack between the Arm Strap and the Orthotic Glove.

Increasing Tension: Disengage the Band Clasp and pull both Resistance Band ends further out. (Pulling both ends out 1/2 inch eliminates a total of 1 inch between the Orthotic Glove and Arm Strap.)

Decreasing Tension: Disengage the Band Clasp, allowing the Resistance Band(s) to slide back through the clasp.

Understanding Fluid Movement

FLEXTEND's Exercises are based on the hand, wrist, and elbow moving together in unison. Think of your arm as a crane for a moment: Working as one piece, with the hand/fingers, wrist and elbow moving as three separate gears, each opening and closing at the same speed, at the same time.

Starting with your arm flexed forward, open and extend the hand/fingers, wrist, and elbow backward at the same speed; Flex, extend backward... then return to the starting position in one smooth and fluid movement. It is important to follow through without pausing at the top or bottom of the movement, as pausing allows for a slight rest and defeats reaching adequate muscle fatigue. You want the extensor muscles of the hand, wrist, and forearm feeling equal resistance (when extending) during exercise.

Remember: *Flex, Extend & Return...*

Flexion and Extension

Flexion and Extension

- **Flexion** is the starting position of the arm: muscles are flexed forward, elbow is bent 90°, with the hand and wrist in the closed position (making a “relaxed fist”).
- **Extension** is the hand, wrist, and elbow opening back to the neutral/straight position, with the fingers spreading, extending back and splaying outward to full extension.

Spreading/Splaying: Make sure to spread the fingers from the beginning of the exercise movement, spreading all the way open/splaying outward.

Resting (between sets): Disengage the Arm Strap between exercises, moving it down to the forearm so that no tension is being applied to the hand or wrist. Rest 30-45 seconds between each set of exercises.

Adjusting Resistance: *FLEXTEND*'s resistance level should allow between 10-20 repetitions when performing any given set of exercise.

Increase the resistance if muscle fatigue is not reached by the 20th rep.

Decrease the resistance if muscle fatigue is reached before the 10th rep.

Using the Progress Chart: Track your symptoms and progress weekly using the Progress Chart (pg. 48). Keeping this record shows the results as you achieve them over a 12 week period.

Exercise Precautions

Stretching: Stretching the fingers, wrist and forearm prior to performing the exercises is fine, but **do not stretch post exercise** as this negates the positive structural changes gained during the training session.

Residual Soreness: For the first 7-14 days, some residual soreness of the extensor muscles may occur due to the lack of direct stimulation during every day activities. This is a normal occurrence, and not to be mistaken for the pain caused by your injury. Residual soreness will disappear as you increase the strength of the extensor/abductor muscles groups.

Hyper-Extension

Hyper-Extension: When performing the Palm-up and Thumb-Up Elbow- Moving exercises, make sure the wrist stops at the neutral/straight position and does not hyper-extend past this point. Hyper-extension is fine when performing isolation exercises, but do not force it.

Muscle Rebounding: Muscle Rebounding is a protective response that affects approximately 5% of *FLEXTEND* users within the first 2 weeks of starting an exercise program. This response usually follows within 1-3 hours after performing the exercises with symptoms such as muscle spasms, cramping, or feeling the need to massage and/or stretch the muscles. When an injury has been present for any significant length of time, the body eventually adapts and perceives the injury as a normal function. Thus any attempts to correct the injury causes the body's natural defense mechanisms to react, or in this case, the muscles to "rebound".

Individuals experiencing Muscle Rebounding may assume that reducing the amount of exercises will help, though this is exactly the opposite of what needs to take place: **Each time Muscle Rebounding starts, immediately perform 2 sets* of Palm-Up Isolated (pg. 31) in order to counteract this response.** This additional exercise will force the muscles back into recovery mode once the body realizes it cannot return to its injured state.

* in addition to the exercise program's 2x daily routine.

Acute Injuries: Acute injuries involve the initial phase of an injury when inflamed or swollen. This acute phase must pass before any rehabilitation with *FLEXTEND* can begin due to the possibility of the injury becoming worse. Wait for the acute phase to pass before starting your exercise program.

Chronic Injuries: Chronic injuries exist over an extended period of time and may take longer to correct depending on the length of time in which the injury has been present. Chronic carpal tunnel injuries may incur scar-tissue build up which causes impingement of the median nerve. Patients who have had carpal tunnel surgery and/or incorrect re-habilitation can also experience this. Do not be discouraged: Be patient yet persistent with your program, as results with *FLEXTEND* will come.

Changing the Resistance Band(s): Eventually the Resistance Band(s) need to be changed due to loss of elasticity or breakage. Replace with a new piece of Resistance Band as instructed (pg. 4, Assembly: Step 4)

FLEXTEND® Exercise Programs: Carpal Tunnel Syndrome

FLEXTEND® Exercise Programs:

Each exercise program targets injuries and/or injury sites using specific primary and advanced exercises. Choose an exercise program; review, perform the exercises and complete the weekly sets/repetitions. Be sure to increase *FLEXTEND*'s resistance weekly *and* track your progress using the Progress Chart (pg. 48).

It is important to be consistent with your exercises, performing 2x daily, 3-6 days a week (per inst.) over the exercise program's 12 week period. You should experience significant and positive results within 2 weeks of starting an exercise program.

Caution: Before attempting any *FLEXTEND* exercise, make sure the Resistance Band(s) and Band Clasp are secured.

Remember: *Flex, Extend & Return...*

Carpal Tunnel Syndrome

Performing this exercise program strengthens the finger abductors, the finger, wrist, and elbow extensors; stretches the finger adductors, the finger, wrist, and elbow flexors.

Symptoms: Pain, tingling, numbness and/or Paresthesia in fingers 1-4, general aches or shooting pains on the frontside of the hand and wrist, increase in symptoms while sleeping, atrophy of the thenar eminence (thumb) muscles.

Exercises: 1

1) Palm-Up Elbow Moving* (pg. 30) or Palm-Up Isolated (pg. 31)

* Use Palm-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing the exercise (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up Isolated, still following the required number of sets and repetitions.

Carpal Tunnel Syndrome

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Note: if you experience limited progress using Carpal Tunnel Syndrome, try using the alternate program **Repetitive Strain Injury** (pg. 12).

Once progress is made using the RSI program, it is fine to return using the CTS program or continue with the RSI program, whichever has the best results.

Repetitive Strain Injury

Repetitive Strain Injury

Performing this exercise program strengthens the finger abductors, wrist and forearm supinators/pronators, and the finger, wrist, and elbow extensors; stretches the finger adductors, the wrist and forearm supinators/pronators, and the finger, wrist, and elbow flexors.

Symptoms: Pain at the front / back of hand, wrist, and/or forearm but without the tingling sensation associated with CTS; overall stiffness, general aching or sharp pain on the back of hand, forearm or elbow.

Exercises: 3

- 1) Palm-Up Elbow Moving* (pg. 30) or Palm-Up Isolated (pg. 31)**
- 2) Pronation (pg. 35)**
- 3) Supination (pg. 36)**

* Use Palm-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing the exercise (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3 sets: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Repetitive Strain Injury

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

1 set: Pronation

1 set: Supination

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Pronation

2 sets: Supination

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

2 sets: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Pronation

3 sets: Supination

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Lateral Epicondylitis (Tennis Elbow)

Performing this exercise program strengthens the finger abductors, wrist and forearm supinators, and the finger, wrist, and elbow extensors surrounding the lateral epicondyle (outside) of the elbow joint; stretches the finger adductors, wrist and forearm pronators, and the finger, wrist, and elbow flexors attached to the medial epicondyle (inside) of the elbow joint. This increases strength and stability within the soft-tissue structures surrounding the lateral epicondyle.

Symptoms: Pain or irritation on the outside of the elbow.

Exercises: 6

- 1) Palm-Up Elbow Moving*** (pg. 30)
- 2) Palm-Up Isolated** (pg. 31)
- 3) Palm-Down Isolated** (pg. 34)
- 4) Thumb-Up Elbow Moving*** (pg. 32)
- 5) Thumb-Up Isolated** (pg. 33)
- 6) Supination** (pg. 36)

* Use Palm-Up and Thumb-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing these exercises (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up and Thumb-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3-sets: Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Lateral Epicondylitis

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

- 1 set: Palm-Up Isolated**
- 1 set: Thumb-Up Isolated**
- 1 set: Supination**
- 1 set: Palm-Up Isolated**

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 1 set: Palm-Down Isolated**
- 1 set: Thumb-Up Elbow Moving* or Thumb-Up Isolated**
- 2 sets: Supination**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 2 sets: Palm-Down Isolated**
- 2 sets: Thumb-Up Elbow Moving* or Thumb-Up Isolated**
- 2 sets: Supination**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Medial Epicondylitis (Golf Elbow)

Performing this exercise program strengthens the finger abductors, hand and forearm pronators, and the finger, wrist, and elbow extensors surrounding the lateral epicondyle (outside) of the elbow joint; stretches the finger adductors, wrists radial deviators, hand and forearm supinators, and the finger, wrist, and elbow flexors surrounding the medial epicondyle (inside) of the elbow joint. This increases strength and stability within the soft-tissue structures surrounding the medial epicondyle.

Symptoms: Pain or irritation on the inside of the elbow.

Exercises: 4

- 1) Palm-Up Elbow Moving* (pg. 30)**
- 2) Palm-Up Isolated (pg. 31)**
- 3) Ulnar Deviation (pg. 42)**
- 4) Pronation (pg. 35)**

* Use Palm-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing the exercise (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3-sets: Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Medial Epicondylitis

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

- 1 set: Palm-Up Isolated**
- 1 set: Ulnar Deviation**
- 1 set: Pronation**
- 1 set: Palm-Up Isolated**

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 2 sets: Ulnar Deviation**
- 2 sets: Pronation**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 3 sets: Ulnar Deviation**
- 3 sets: Pronation**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Note: if you experience limited progress using Medial Epicondylitis, try using the alternate program **Cubital Tunnel Syndrome** (pg. 18).

Once progress has been made using the Cubital Tunnel Syndrome program (and symptoms are reduced), it is fine to return using Medial Epicondylitis or continue using Cubital Tunnel Syndrome, whichever program has the best results.

Cubital Tunnel Syndrome

Cubital Tunnel Syndrome:

Performing this exercise program strengthens the finger abductors, hand and forearm supinators, wrists radial deviators, and the finger, wrist, and elbow extensors surrounding the lateral epicondyle (outside) of the elbow joint; stretches the finger adductors, hand and forearm pronators, wrists ulnar deviators, and the finger, wrist, and elbow flexors surrounding the medial epicondyle (inside) of the elbow joint. This may reduce compression of the ulnar nerve and soft-tissue structures surrounding the medial epicondyle.

Symptoms: Pain, tingling, numbness on the inside of the elbow (often radiating down the nerve pathway) mostly affecting the little finger and one half of the ring finger.

Exercises: 5

- | | | | |
|----------------------------------|-----------------|-----------------------------|-----------------|
| 1) Palm-Up Elbow Moving* | (pg. 30) | or Palm-Up Isolated | (pg. 31) |
| 2) Palm-Down Isolated | (pg. 34) | | |
| 3) Radial Deviation | (pg. 43) | | |
| 4) Supination | (pg. 36) | | |
| 5) Thumb-Up Elbow Moving* | (pg. 32) | or Thumb-Up Isolated | (pg. 33) |

* Use Palm-Up and Thumb-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing these exercises (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up and Thumb-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3 sets: Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Cubital Tunnel Syndrome

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

- 1 set: Palm-Up Isolated**
- 1 set: Supination**
- 1 set: Thumb-Up Isolated**
- 1 set: Palm-Up Isolated**

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 1 set: Palm-Down Isolated**
- 1 set: Radial Deviation**
- 1 set: Supination**
- 1 set: Thumb-Up Elbow Moving* or Thumb-Up Isolated**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 1 set: Palm-Down Isolation**
- 1 sets: Radial Deviation**
- 2 sets: Supination**
- 2 sets: Thumb-Up Elbow Moving* or Thumb-Up Isolated**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Stenosing Tenosynovitis (Trigger Finger)

Performing this exercise program strengthens the finger abductors, the finger, wrist, and elbow extensors; stretches the finger adductors, the finger, wrist and elbow flexors. This can release adhesions and/or scar tissue on the tendon of the affected finger.

Note that Trigger Finger may take longer to correct than other hand disorders. Be patient, yet persistent with your program, and results will come using FLEXTEND .

Symptoms: Pain in the affected finger, wrist, and/or forearm, snapping or jerking movement in one or more fingers, bowing in specific joint segments, fingers locking in a flexed-downward position into the palm of the hand.

Exercises: 3

- 1) **Palm-Up Elbow Moving*** (pg. 30) or **Palm-Up Isolated** (pg. 31)
- 2) **Five-Finger Isolated** (pg. 41)
- 3) **Single Finger Isolated** (pg. 40)

* Use Palm-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing the exercise (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3-sets: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Stenosing Tenosynovitis

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Five-Finger Isolated

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Five-Finger Isolated

2 sets: Single-Finger Isolated

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

3 sets: Five-Finger Isolated

3 sets: Single-Finger Isolated

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

De Quervain's Syndrome (Thumb & Wrist)

Performing this exercise program strengthens the finger abductors, hand and wrist supinators, wrists ulnar deviators, and the finger, wrist, and elbow extensors; stretches the finger adductors, hand and wrist pronators, wrists radial deviators, and the finger, wrist and elbow flexors.

Symptoms: Pain, aching, or irritation in affected area, weakness in thumb, loss of muscle tone/muscle atrophy.

Exercises: 4

- | | | | |
|----------------------------------|-----------------|-----------------------------|-----------------|
| 1) Palm-Up Elbow Moving* | (pg. 30) | or Palm-Up Isolated | (pg. 31) |
| 2) Thumb-Up Elbow Moving* | (pg. 32) | or Thumb-Up Isolated | (pg. 33) |
| 3) Ulnar Deviation | (pg. 42) | | |
| 4) Supination | (pg. 36) | | |

* Use Palm-Up and Thumb-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing these exercises (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up and Thumb-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3 sets: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 1 set: Thumb-Up Elbow Moving* or Thumb-Up Isolated**
- 1 set: Supination**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 1 set: Thumb-Up Elbow Moving* or Thumb-Up Isolated**
- 1 set: Ulnar Deviation**
- 2 sets: Supination**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**
- 2 sets: Thumb-Up Elbow Moving* or Thumb-Up Isolated**
- 1 set: Ulnar Deviation**
- 3 sets: Supination**
- 1 set: Palm-Up Elbow Moving* or Palm-Up Isolated**

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Guyon's Syndrome (Little Finger and Wrist)

Performing this exercise program strengthens the finger abductors, hand and wrist pronators, wrists radial deviators, and the finger, wrist, and elbow extensors; stretches the finger adductors, hand and wrist supinators, wrists ulnar deviators, and the finger, wrist and elbow flexors.

Symptoms: Pain, tingling, numbness on the ulnar (little finger) side of the hand/wrist, affecting little finger and one half of ring finger.

Exercises: 4

- | | | | |
|---------------------------------|-----------------|----------------------------|-----------------|
| 1) Palm-Up Elbow Moving* | (pg. 30) | or Palm-Up Isolated | (pg. 31) |
| 2) Palm-Down Isolated | (pg. 34) | | |
| 3) Pronation | (pg. 35) | | |
| 4) Radial Deviation | (pg. 43) | | |

* Use Palm-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing the exercise (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3 sets: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

1 set: Pronation

1 set: Radial Deviation

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Guyon's Syndrome

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

1 set: Palm-Down Isolated

2 sets: Pronation

1 set: Radial Deviation

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Palm-Down Isolated

2 sets: Pronation

2 sets: Radial Deviation

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Thumb, Little Finger and Wrist

Thumb, Little Finger and Wrist

Performing this exercise program strengthens the finger abductors, wrists ulnar/radial deviators, wrist and forearm supinators/pronators, and the finger, wrist, and elbow extensors; stretches the finger adductors, wrists ulnar/radial deviators, wrist and forearm supinators/pronators, and the finger, wrist and elbow flexors.

Symptoms: Pain, tingling, numbness located on the radial (thumb) and ulnar (little finger) sides of the hand/wrist, partial symptoms in the thumb, index, middle and (one half of) the ring and little fingers; central portion of the anterior and/or posterior wrist.

Exercises: 5

- | | | | |
|---------------------------------|-----------------|----------------------------|-----------------|
| 1) Palm-Up Elbow Moving* | (pg. 30) | or Palm-Up Isolated | (pg. 31) |
| 2) Pronation | (pg. 35) | | |
| 3) Supination | (pg. 36) | | |
| 4) Ulnar Deviation | (pg. 42) | | |
| 5) Radial Deviation | (pg. 43) | | |

* Use Palm-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing the exercise (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3 sets: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Thumb, Little Finger and Wrist

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

1 set: Pronation

1 set: Supination

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Pronation / Replace with Ulnar Deviation every other day.

2 sets: Supination / Replace with Radial Deviation every other day.

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

3 sets: Pronation / Replace with Ulnar Deviation every other day.

3 sets: Supination / Replace with Radial Deviation every other day.

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

General Hand Strengthening

Performing this exercise program strengthens the finger abductors, wrist and forearm supinators/pronators, and the finger, wrist and elbow extensors; stretches the finger adductors, the wrist and forearm supinators/pronators, and the finger, wrist and elbow flexors.

Symptoms: Pain, aching, weakness, fatigue, cramping of the hand, wrist and/or forearm.

Exercises: 4

- 1) Palm-Up Elbow Moving*** (pg. 30) or **Palm-Up Isolated** (pg. 31)
- 2) Palm-Down Isolated** (pg. 34)
- 3) Pronation** (pg. 35)
- 4) Supination** (pg. 36)

* Use Palm-Up Elbow Moving unless you experience ANY discomfort in the elbow region while performing the exercise (not including post-exercise soreness, fatigue, etc.) Revert to using Palm-Up Isolated, still following the required number of sets and repetitions.

Week #1: 3 sets / 10 repetitions, 2x daily, 3 days a week

3 sets: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 3 sets in the morning, and 3 sets in the afternoon or evening.

Week #2-3: 4 sets / 12-20 repetitions, 2x daily, 4-5 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

1 set: Pronation

1 set: Supination

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 4 sets in the morning, and 4 sets in the afternoon or evening.

Maintenance Exercise Programs

Week #4-8: 6 sets / 12-20 repetitions, 2x daily, 5-6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Palm-Down Isolated

1 set: Pronation

1 set: Supination

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 6 sets in the morning, and 6 sets in the afternoon or evening.

Week #9-12: 8 sets / 12-20 repetitions, 2x daily, 6 days a week

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

2 sets: Palm-Down Isolated

2 sets: Pronation

2 sets: Supination

1 set: Palm-Up Elbow Moving* or Palm-Up Isolated

Perform 8 sets in the morning, and 8 sets in the afternoon or evening.

Increase exercise resistance each week by moving up the Band Clasp/shortening the band length. Track your progress using the Progress Chart. (pg. 48)

Maintenance Exercise Programs:

Maintenance Exercise Programs are based on using an exercise program's week #9-12 routine, though performing **one set** of each exercise, 2x daily, 3 days a week.*

Ex. A: Repetitive Strain Injury (pg. 12), perform 4 sets: 1 set Palm-Up Elbow Moving, 1 set Pronation, 1 set Supination, and 1 set Palm-Up Elbow Moving, 2x daily, 3 days a week.

Ex. B: Lateral Epicondylitis (pg. 14), perform 5 sets: 1 set Palm-Up Elbow Moving, 1 set Palm-Down Isolated, 1 set Thumb-Up Elbow Moving, 1 set Supination, and 1 set Palm-Up Elbow Moving, 2x daily, 3 days a week.

* for Carpal Tunnel Syndrome (pg. 10), perform 4 sets of Palm-Up Elbow Moving, 2x daily, 3 days a week.

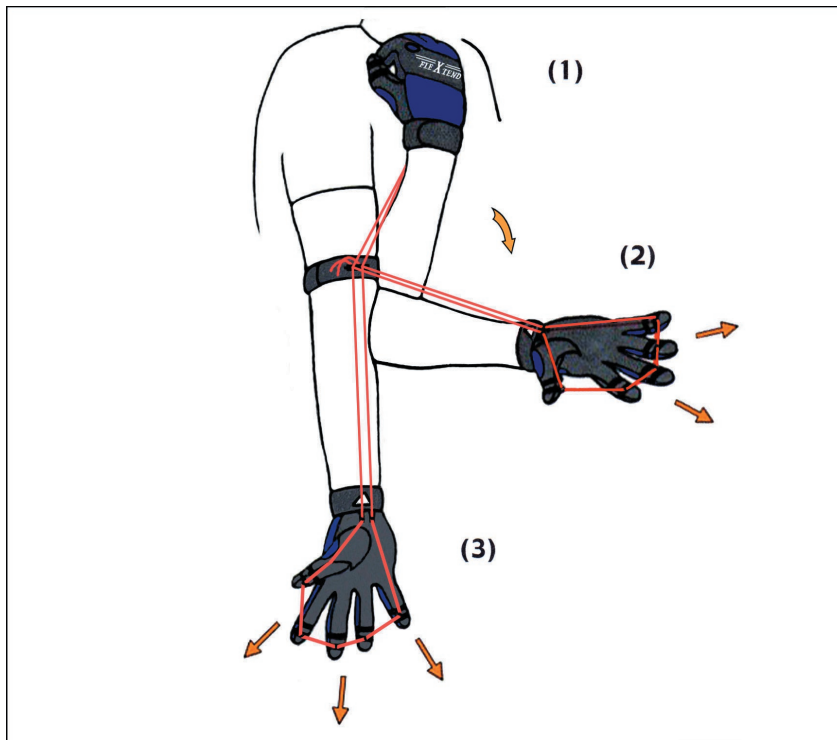
FLEXTEND® Exercises: Palm-Up Elbow Moving

FLEXTEND® Exercises:

Palm-Up Elbow Moving

Palm-Up Elbow Moving is a smooth and fluid movement, with each repetition taking approximately 1.5 - 2 seconds to complete. The hand, wrist, and elbow all move together in a smooth, controlled motion:

- Step 1:** Start with the hand facing palm-up and positioned at shoulder level, the fingers and wrist in flexion (making a “relaxed fist”.)
- Step 2:** Spread the fingers apart/opening hand, extending the fingers, wrist, and elbow backward...
- Step 3:** ...continue backward, completely spreading the fingers apart while extending downward to the neutral/straight position. Return to the starting position and repeat.

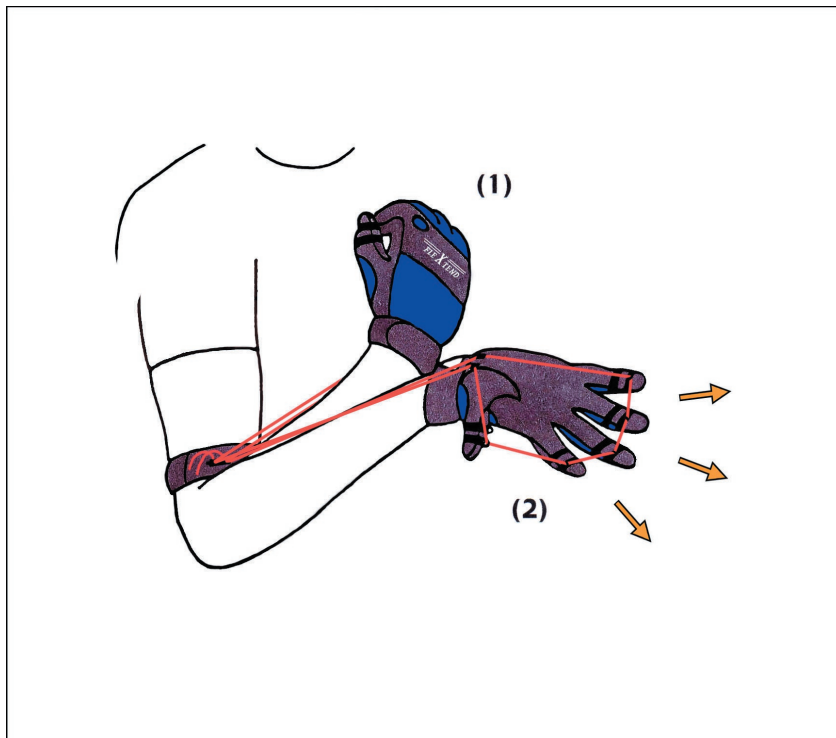


Palm-Up Isolated

Palm-Up Isolated

Palm-Up Isolated is a smooth and fluid movement, with each repetition taking approximately 1 second to complete. The hand and wrist move together in a smooth, controlled motion. Keep the elbow bent 45°, isolating the hand and wrist:

- Step 1:** Start with the hand facing palm-up and positioned at chest level, the fingers and wrist in flexion (making a “relaxed fist”.)
- Step 2:** Spread the fingers apart/opening hand, extending the fingers and wrist backward to the neutral/straight position. Return to the starting position and repeat.



Thumb-Up Elbow Moving

Thumb-Up Elbow Moving

Thumb-Up Elbow Moving is a smooth and fluid movement, with each repetition taking approximately 1.5 - 2 seconds to complete. The hand, wrist, and elbow move together in a smooth, controlled motion:

Note: Position the Arm Strap, turning 90° (1/4 turn) counter-clockwise*, bringing the rings to the inside of the forearm.

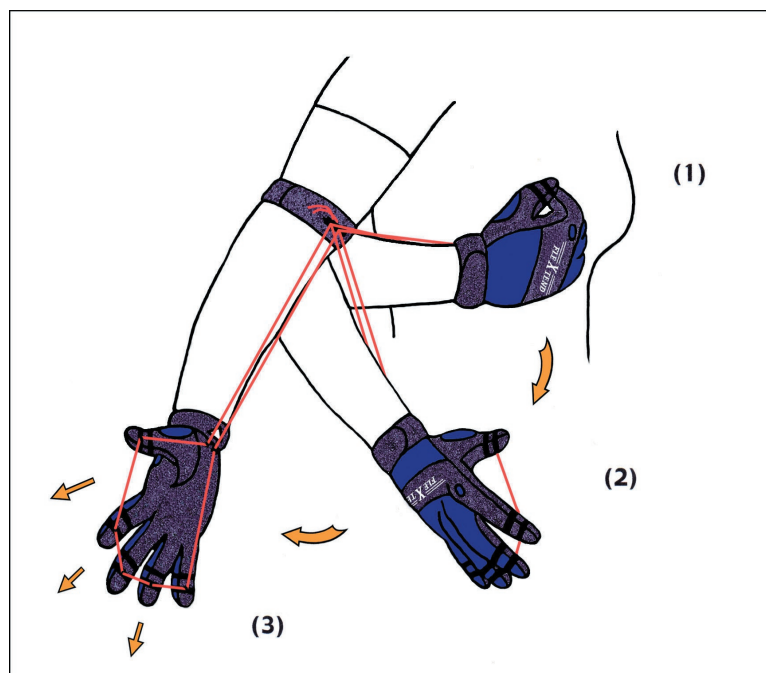
* **Left-Hand:** Turn 90° (1/4 turn) clockwise.

Step 1: Start with the hand in the thumb-up position, fingers and wrist in flexion (making a “relaxed fist”), with the wrist curled in towards the abdomen.

Step 2: Spread the fingers apart/opening hand, extending the fingers, wrist, and elbow outward (away from the body)...

Step 3: ...continue backward, completely spreading the fingers apart while extending out to the neutral/straight position. Return to the starting position and repeat.

Helpful Hint: Perform this exercise as if doing a back-hand in tennis or racquetball. Imagine holding the racquet out and crossing over in front of you.



Thumb-Up Isolated

Thumb-Up Isolated

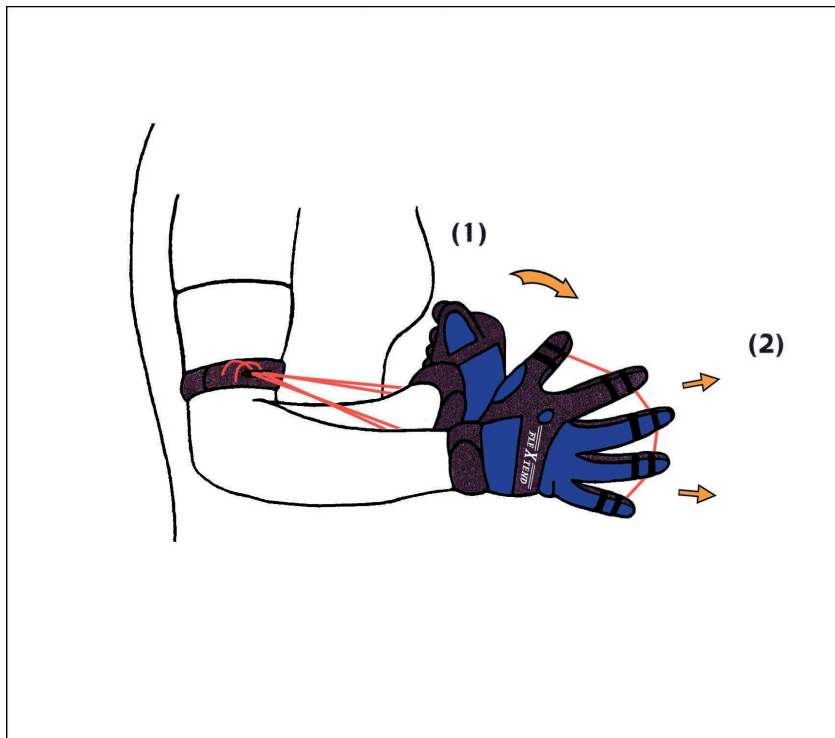
Thumb-Up Isolated is a smooth and fluid movement, with each repetition taking approximately 1 second to complete. The hand and wrist move together in a smooth, controlled motion. Keep the elbow bent 90°, isolating the hand and wrist:

Note: Position the Arm Strap, turning 90° (1/4 turn) counter-clockwise*, bringing the rings to the inside of the forearm.

* **Left-Hand:** Turn 90° (1/4 turn) clockwise.

Step 1: Start with the hand in the thumb-up position, fingers and wrist in flexion (making a “relaxed fist”), with the wrist curled in towards the abdomen.

Step 2: Spread the fingers apart/opening hand, extending the fingers and wrist outward to the neutral/straight position. Return to the starting position and repeat.



Palm-Down Isolated

Palm-Down Isolated

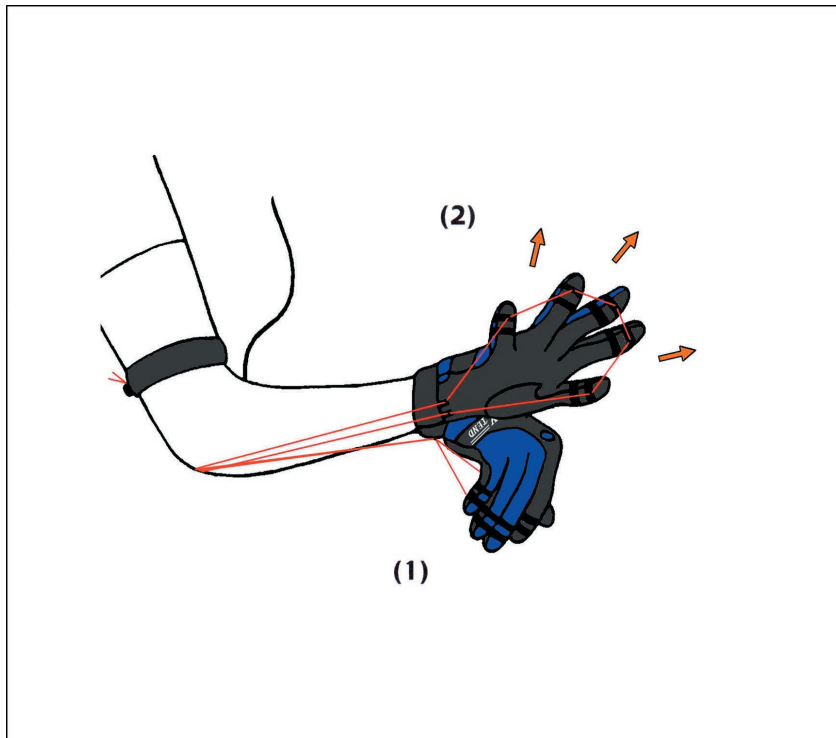
Palm Down Isolated is a smooth and fluid movement, with each repetition taking approximately 1 second to complete. The hand and wrist move together in a smooth, controlled motion. Keep the elbow bent 90°, isolating the hand and wrist:

Note: Position the Arm Strap, turning 180° (1/2 turn) counter-clockwise*, bringing the rings to the underside of the forearm.

* **Left-Hand:** Turn 180° (1/2 turn) clockwise.

Step 1: Start with the hand in the palm-down position, the fingers and wrist in flexion (making a “relaxed fist”).

Step 2: Spread the fingers apart/opening hand, extending the fingers and wrist upward to the neutral/straight position. Return to the starting position and repeat.



Pronation

Pronation is a fluid Extension and Rotation movement, with each repetition taking approximately 1 second to complete. The hand and wrist move together in a smooth, controlled motion, with the wrist rotating during extension and return. Keep the elbow bent 90°, isolating the hand and wrist:

Note: Position the Arm Strap, turning 90° (1/4 turn) clockwise*, bringing the rings to the topside of the forearm.

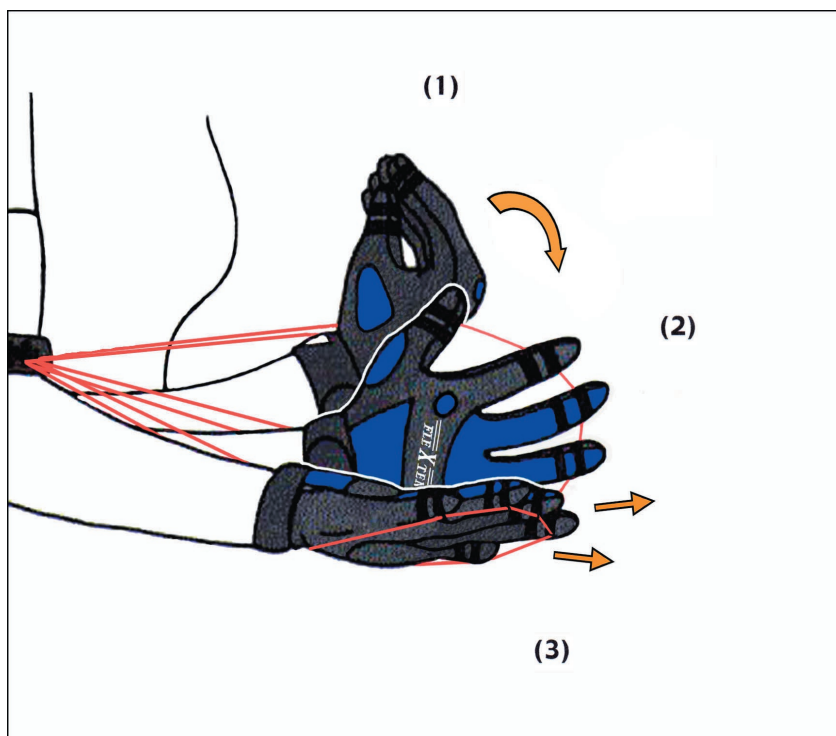
* **Left-Hand:** Turn 90° (1/4 turn) counter-clockwise.

Step 1: Start with the hand in the palm-up position, the fingers and wrist in flexion (making a “relaxed fist”.)

Step 2: Spread the fingers apart/opening hand, extending the fingers and wrist backward while simultaneously (starting to) rotate the wrist 180° (1/2 turn) counter-clockwise*...

* **Left-Hand:** Rotate the wrist clockwise.

Step 3: ...continue rotating to the palm-down position, completely spreading and extending the fingers outward to the neutral/straight position. Return to the starting position and repeat.



Supination

Supination

Supination is a fluid Extension and Rotation movement, with each repetition taking approximately 1 second to complete. The hand and wrist move together in a smooth, controlled motion, with the wrist rotating during extension and return. Keep the elbow bent 90°, isolating the hand and wrist:

Note: Position the Arm Strap, turning 180° (1/2 turn) counter-clockwise*, bringing the rings to the underside of the forearm.

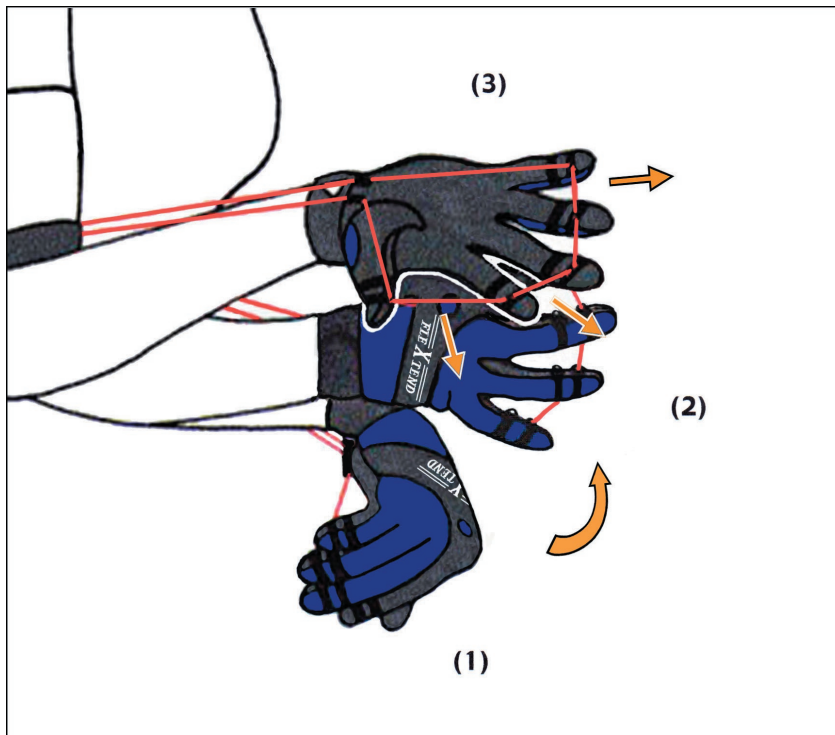
* **Left-Hand:** Turn 180° (1/2 turn) clockwise.

Step 1: Start with the hand in the palm-down position, the fingers and wrist in flexion (making a “relaxed fist”).

Step 2: Spread the fingers apart/opening hand, extending the fingers and wrist backward while simultaneously (starting to) rotate the wrist 180° (1/2 turn) clockwise*...

* **Left-Hand:** Rotate the wrist counter-clockwise.

Step 3: ...continue rotating to the palm-up position, completely spreading and extending the fingers outward to the neutral/straight position. Return to the starting position and repeat.



Thenar/Index Isolated

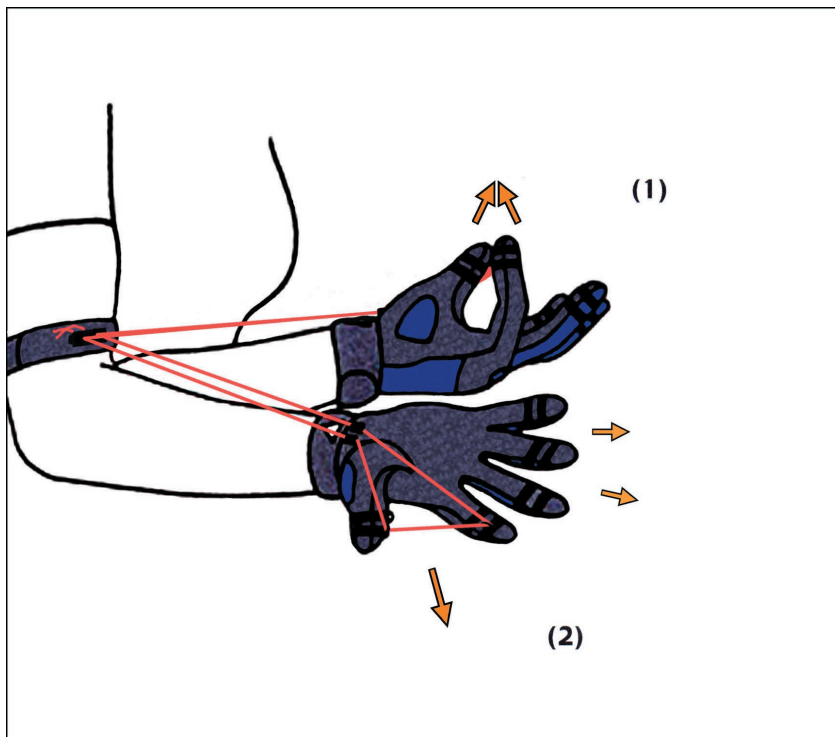
Thenar/Index Isolated

Thenar/Index Isolated is a smooth and fluid movement, with each repetition taking approximately 1 second to complete. The thumb and index finger move together in a smooth, controlled motion:

Note: Line the Resistance Band through the thumb and index rings only.

Step 1: Start with the hand facing palm-up and positioned at chest level, the fingers in flexion with the wrist “locked” in the neutral/straight position.

Step 2: Spread the thumb and index finger apart and extend backward to the neutral/straight position.. Return to the starting position and repeat.



Thenar/Hypothenar Isolated

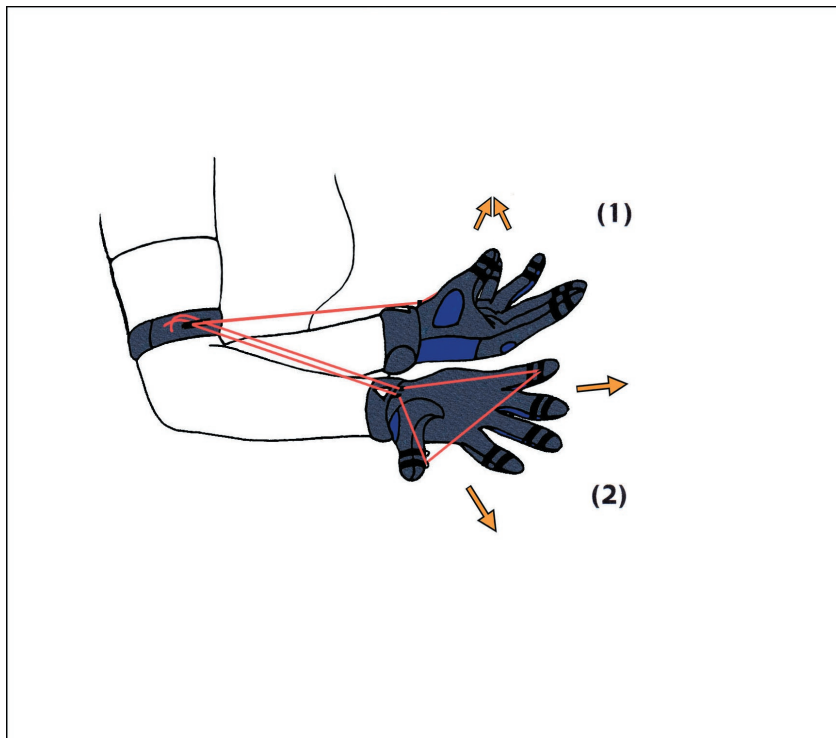
Thenar/Hypothenar Isolated

Thenar/Hypothenar Isolated is a smooth and fluid movement, with each repetition taking approximately 1 second to complete. The thumb and little finger move together in a smooth, controlled motion:

Note: Line the Resistance Band through the thumb and little finger rings only.

Step 1: Start with the hand facing palm-up and positioned at chest level, index, middle and ring fingers extended, the thumb and small finger in flexion with the wrist “locked” in the neutral/straight position.

Step 2: Spread the thumb and small finger apart and extend backward to the neutral/straight position.. Return to the starting position and repeat.

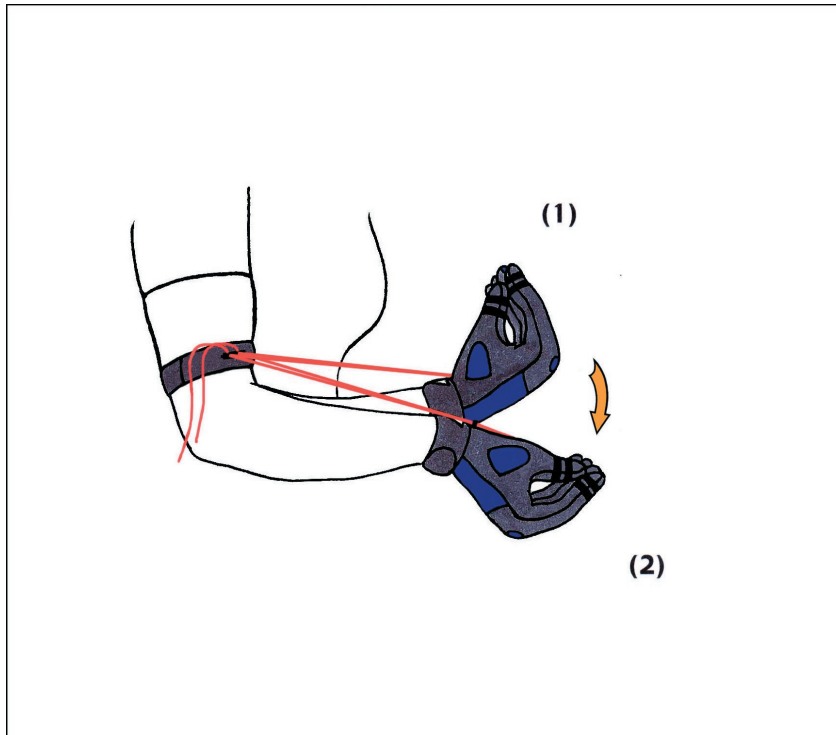


Wrist Extension

Wrist Extension

Wrist Extension is a smooth and fluid movement, with each repetition taking approximately 1 second to complete:

- Step 1:** Start with the hand facing palm-up and positioned at chest level, the fingers and wrist in flexion (making a “relaxed fist”).
- Step 2:** Extend the wrist backward to the neutral/straight position, keeping the fingers “locked” (flexed forward) into the palm of the hand. Return to the starting position and repeat.



Single-Finger Isolated

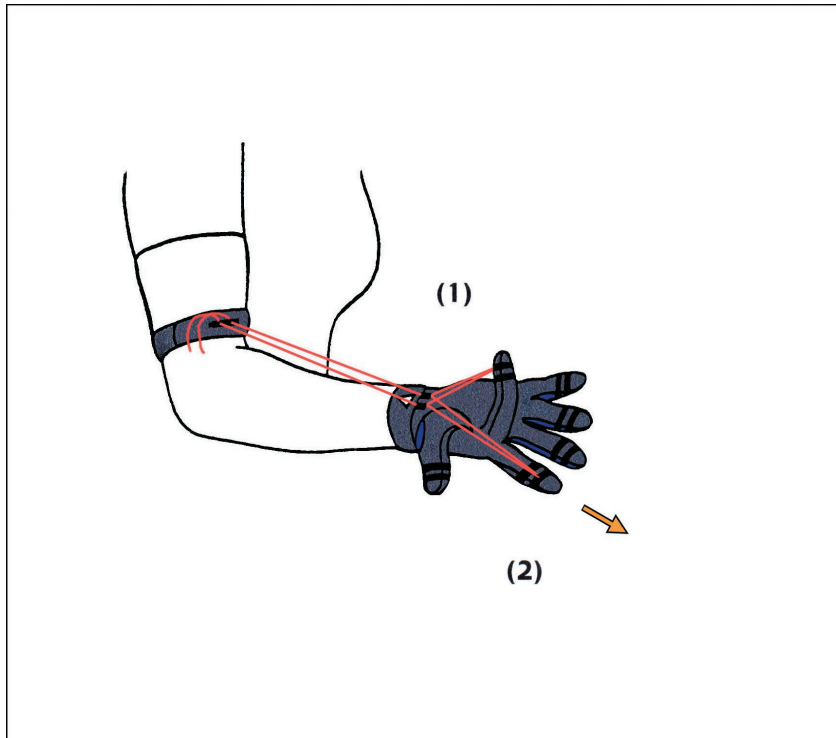
Single-Finger Isolated

Single-Finger Isolated is a smooth and fluid movement, with each repetition taking approximately 1 second to complete:

Note: Line the Resistance Band through the selected finger ring only.

Step 1: Start with the hand facing palm-up and positioned at chest level, fingers in flexion with the wrist “locked” in the neutral/straight position.

Step 2: Extend the selected finger backward to the neutral/straight position. Return to the starting position and repeat.

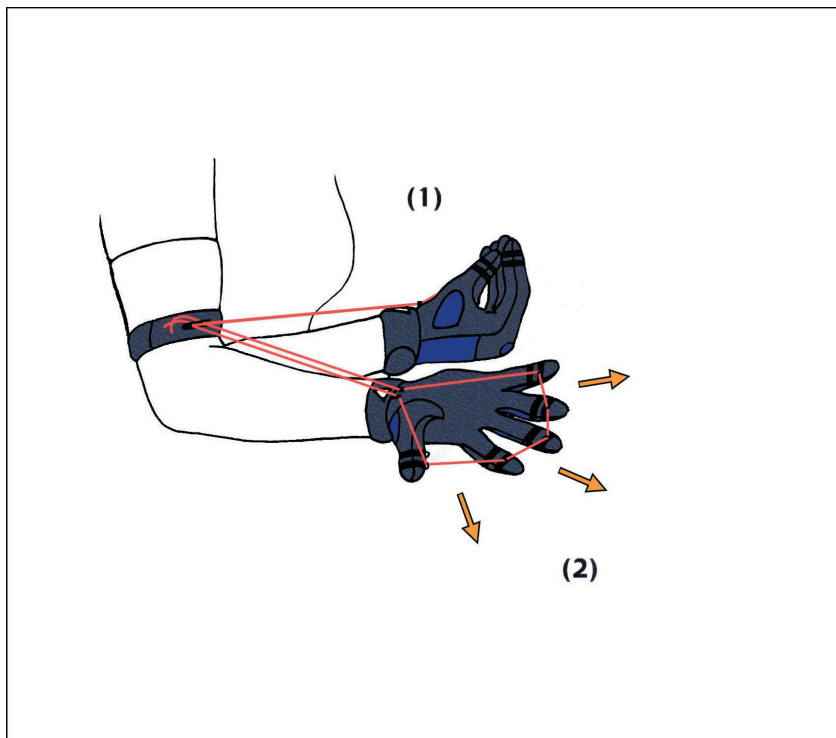


Five-Finger Isolated

Five-Finger Isolated

Five-Finger Isolated is a smooth and fluid movement, with each repetition taking approximately 1 second to complete. The fingers move together in a smooth, controlled motion:

- Step 1:** Start with the hand facing palm-up and positioned at chest level, fingers in flexion with the wrist “locked” in the neutral/straight position.
- Step 2:** Spread the fingers apart/opening hand, then completely spread/splaying the hand back to the neutral/straight position. Return to the starting position and repeat.



Ulnar Deviation

Ulnar Deviation

Ulnar Deviation is a fluid Extension and wrist “cocking” movement, with each repetition taking approximately 1 second to complete. The hand, wrist, and elbow all move together in a smooth, controlled motion, with the wrist rotating and “cocking” downward after the wrist has been extended to the neutral/straight position. Keep the elbow bent 90°, isolating the hand & wrist:

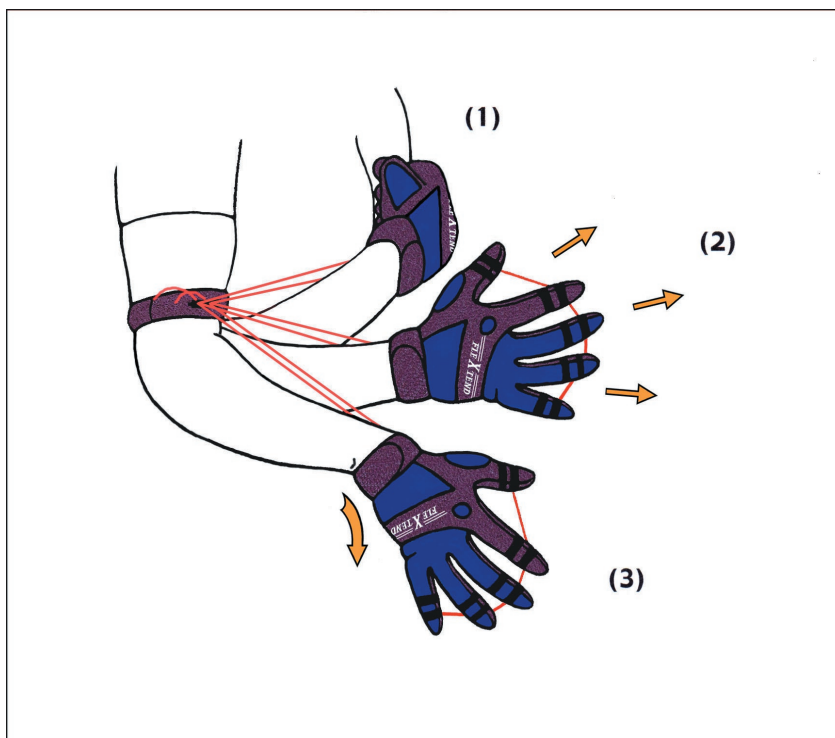
Note: Position the Arm Strap, turning 90° (1/4 turn) clockwise*, bringing the rings to the topside of the forearm.

* **Left-Hand:** Turn 90° (1/4 turn) counter-clockwise.

Step 1: Start with the hand in the thumb-up position, fingers and wrist in flexion (making a “relaxed fist”), with the wrist curled in towards the abdomen.

Step 2: Spread the fingers apart/opening hand, extending the fingers and wrist out toward the neutral/straight position...

Step 3: ...continue extending, while simultaneously “cocking” the wrist downward with the hand still open (as if pouring water from a pitcher.) Return to the starting position and repeat.



Radial Deviation

Radial Deviation

Radial Deviation is a fluid Extension and wrist “cocking” movement, with each repetition taking approximately 1 second to complete. The hand, wrist, and elbow all move together in a smooth, controlled motion, with the wrist rotating and “cocking” upward after the wrist has been extended to the neutral/straight position. Keep the elbow bent 90°, isolating the hand & wrist:

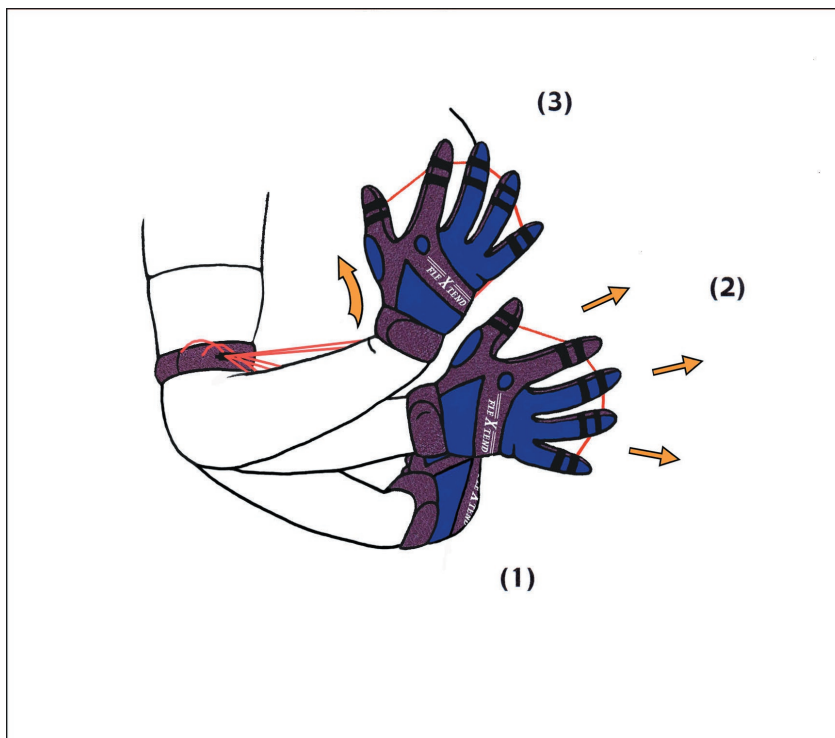
Note: Position the Arm Strap, turning 180° (1/2 turn) counter-clockwise*, bringing the rings to the underside of the forearm.

* **Left-Hand:** Turn 180° (1/2 turn) clockwise.

Step 1: Start with the hand in the thumb-up position, fingers and wrist in flexion (making a “relaxed fist”), with the wrist curled in towards the abdomen.

Step 2: Spread the fingers apart/opening hand, extending the fingers and wrist out toward the neutral/straight position...

Step 3: ...continue extending, while simultaneously “cocking” the wrist upward with the hand still open (as if tipping a glass back to drink.) Return to the starting position and repeat.



Palm-Up Elbow Moving

This exercise strengthens the extensors of the finger, wrist and elbow, and finger abductors; stretches the flexors of the finger, wrist and elbow, finger adductors, and palmar fascia. This creates equal balance and stability within the finger, wrist, and elbow joints. Palm-Up Elbow Moving is easier to perform due to the added weight and momentum of the lower arm (elbow) extending.

Palm-Up Isolated

This exercise strengthens the extensors of the finger and wrist, and finger abductors; stretches the flexors of the finger and wrist, finger adductors, and palmar fascia. This creates equal balance and stability within the finger and wrist joints, thus eliminating pain central to the wrist and hand area. Palm-Up Isolated is more difficult (than PUEM) as the arm remains stationary, focusing on strengthening the finger and wrist joints without the added momentum of the lower arm (elbow) extending.

Thumb-Up Elbow Moving

This exercise strengthens the extensors of the finger, wrist, elbow, and finger abductors; stretches the flexors of the finger, wrist, elbow, and finger adductors. Thumb-Up Elbow Moving directly affects the extensors surrounding the lateral epicondyle (outside) of the elbow joint, breaking down scar tissue and adhesions that have formed from overuse or direct trauma.

Thumb-Up Isolated

This exercise strengthens the extensors of the finger and wrist, and finger abductors; stretches the flexors of the finger and wrist, and finger adductors. Thumb-Up Isolated is used in place of TUEM if any pain is experienced while moving/extending the elbow. Utilize this exercise first in order to strengthen the extensors, thus eliminating pain when resuming Thumb-Up Elbow Moving.

Palm-Down Isolated

This exercise strengthens the extensors of the finger and wrist; stretches the flexors of the finger and wrist; specifically focuses on lengthening the ulnar deviators of the wrist (underside of forearm.)

Supination Isolated

This exercise strengthens the extensors of the finger and wrist, finger abductors, supinators of the wrist and forearm; directly strengthens the thenar eminence (backside of thumb and wrist); stretches the flexors of the finger and wrist, finger adductors, pronators of the wrist and forearm; directly stretches the thenar eminence (front side of thumb and wrist.)

Pronation Isolated

This exercise strengthens the extensors of the finger and wrist, finger abductors, pronators of the wrist and forearm; directly strengthens the hypo-thenar eminence (backside of little finger and wrist); stretches the flexors of the finger and wrist, finger adductors, supinators of the wrist and forearm; directly stretches the hypo-thenar eminence (front side of little finger and wrist.)

Thenar/Index Isolated

This exercise strengthens the extensors/abductors of the thenar eminence (thumb) and index finger; stretches the flexors/adductors of the thenar eminence and index finger.

Thenar/Hypothenar Isolated

This exercise strengthens the extensors/abductors of the thenar and hypothenar eminence (thumb and little finger); stretches the flexors/adductors of the thenar and hypothenar eminence, and palmar fascia.

Single-Finger Isolated

This exercise strengthens the finger extensors, stretches the (isolated finger) flexors and is used to break down specific adhesions and/or scar-tissue that has developed along the length of the tendon (as in Trigger-Finger.)

Five-Finger Isolated

This exercise strengthens the finger extensors, stretches the finger flexors, and is used to break down specific adhesions and/or scar-tissue that has developed along the length of the tendons (as in Trigger-Finger.)

Wrist Extension

This exercise strengthens the wrists extensors, stretches the wrists flexors, and is used for increasing the wrist's range of motion.

Ulnar Deviation

This exercise strengthens the finger abductors, extensors of the fingers and wrist, and ulnar deviator group; stretches the finger adductors, flexors of the finger and wrist, and radial deviator group.

Radial Deviation

This exercise strengthens the finger abductors, extensors of the fingers and wrist, and radial deviator group; stretches the finger adductors, flexors of the finger and wrist, and ulnar deviator group.

Troubleshooting Guide/FAQ

FLEXTEND's Troubleshooting Guide cover's frequently asked questions that we believe may be solved by most users.

If the FAQ does not help, please contact BSI and consult with a Clinician. Clinicians work directly with you to ensure your results and success using FLEXTEND®.

Call Toll-Free: 1-888-274-5444 or E-mail: clinician@fextend.com

Q: I am performing my exercise program regularly, but am not seeing any improvement.

A: Make sure you are performing the exercises correctly. Review Understanding Fluid Movement (pg. 7), the exercise's instructions and/or view the exercises in the Instructional Video.

A: Make sure you are spreading/splaying all the way. When performing the exercises, spread the fingers all the way apart (especially the thumb and little finger) and fully splay the hand in the open (extended) position.

A: The Orthotic glove may not be the proper size. A custom fitting glove is imperative for the user to have precise control over the exercise movements. An improper fit can slow progress and results. Check your hand size using the Sizing Chart (see back of box.)

A: You may have mis-diagnosed your condition or injury. Consult with your Physician to get an accurate diagnosis. Bring FLEXTEND® and Instruction Manual/Treatment Therapy Guide with you to assist the Physician in recommending the correct exercise program.

A: A Physician may have mis-diagnosed your condition or injury. A Correct diagnosis is imperative for ensuring proper treatment and recovery, as soon as possible before it becomes worse. Get a second opinion, and a third if you have to.

Q: The exercises seem too difficult.

A: Try decreasing Resistance Band(s) tension (pg. 7). If difficulty persists, switch down to using level 1 (pg. 3, Choosing the correct fulcrum point.)

Q: The exercises seem too easy.

A: Try reducing the amount of rest time between sets; increasing Resistance Band(s) tension (pg. 7); switching up to using level 3 (pg. 3, Choosing the correct fulcrum point.); If Level 3 is still too easy, try using both pieces of Resistance Bands in the upper fulcrum point. If the problem still persists, try using light Resistance Band (in the lower fulcrum point) and heavy Resistance Band (in the upper fulcrum point.), or light and heavy Resistance Bands together (in the upper fulcrum point.)

Progress Chart

PROGRESS CHART

* Rate Each Symptom on a Scale of 0 -10 (0=Lowest 10=Highest)

SYMPTOMS	Pain	Numbness	Tingling	Paresthesia (Pins & Needles)	Night Wakening Times Per Night/Wk	Flexibility	Endurance	Strength
PRE-PROGRAM								
WEEK ONE								
WEEK TWO								
WEEK THREE								
WEEK FOUR								
WEEK FIVE								
WEEK SIX								
WEEK SEVEN								
WEEK EIGHT								
WEEK NINE								
WEEK TEN								
WEEK ELEVEN								
WEEK TWELVE								
POST-PROGRAM								

Notes

Order Form

Place Your Order...

By Phone: 1-888-274-5444

By Fax: 1-541-504-1637

On-line: www.flexlend.com

Checks/MO Payable to:

Balance Systems, Inc.

627 S.W. 14th St.

Redmond, OR 97756

Ship to:

Name _____ Company _____

Address _____

City _____ State ____ Zip _____

Province/Country (if not US) _____

Phone (daytime/business) _____ (evening/other) _____

Fax _____ E-mail Address _____

<u>Description</u>	<u>Unit Price</u>	<u>Size</u>	<u>Qty.</u>	<u>Hand</u>	<u>Total Price</u>
• FLEXTEND Orthotic Glove:	\$ 82/ \$150	_____	_____	<u>L / R</u>	_____
• Arm Strap:	\$ 15.00 ea.		_____		_____
• Band Clasp:	\$ 1.00 ea.		_____		_____
• Resistance Bands- Light:	\$ 9.00 (5pk)		_____		_____
• Resistance Bands- Heavy:	\$ 12.00 (5pk)		_____		_____

**Shipping & Handling (US)
Standard USPS/FedEx**

(delivery in 4-7 business days)
\$1 - \$25 add\$9.95
\$26 - \$100 add\$12.95
\$101 - \$250 add\$16.95
over \$250 add\$19.95

MERCHANDISE TOTAL _____

SH (see chart at left) > _____

2nd Day Delivery (Add \$15.00) > _____

Next Day Delivery (Add \$30.00) > _____

International SH

\$1 - \$100 add\$15.00
over \$100 add15% of Mdse. Total

International (see chart at left) * _____

TOTAL _____

PAYMENT METHOD (choose one)

Check #: _____ (allow 10 business days for processing) Money Order _____

BILL MY: Visa _____ MasterCard _____ American Express _____ Discover _____

Card #: _____ Exp. Date _____

CARD HOLDER'S SIGNATURE (required)