

# Vector<sub>1</sub>

Innovation In Continuous Passive Motion

**Lantz**  
Medical

*Positive outcomes, hand delivered*



Exclusive Distributor: Joints In Motion Medical, LLC  
262-547-4276 toll-free: 866-546-4276

## Indications

For the treatment and prevention of intra-articular adhesions, extra-articular contractures, and excessive post-operative swelling. Vector<sub>1</sub> has been used for, but is not limited to the following diagnoses:

- MP arthroplasty
- Tenolysis
- Escharotomy
- Fasciotomy
- Skin Graft
- Dupuytren's contracture
- Complex regional pain syndrome
- ORIF
- Capsulotomy
- Edema
- Burn
- Degloving
- Partial digital amputation
- Volar plate repair
- Flexor tendon repair
- Stiff hand syndrome
- Extensor tendon repair
- Tendon transfer

## Key Features and Benefits

- -21° hyperextension to 340° flexion (full composite fist)
- 9 gradations of speed: low-end torque
- Up to 45 minutes, 25 seconds of pause at extension and flexion limits which allows for a controlled stretch and rest period
- Intrinsic plus/safe hand position accomplished by first phalanx positioning of finger plates
- Intuitive and convenient digital display of angle, ROM settings, speed and force
- Simple hand control functions
- Telescoping forearm splint for increased base of support
- Malleable splint for increasing surface area contact circumferentially

## Clinical Advantages

- Strongest motor on the market to prevent rebound of unit during prescribed ROM
- Dynamic spring leaf caterpillars: Malleable to accommodate ROM considerations
- Glove option to ease donning and doffing of unit-facilitates increased compliance
- Programmable force, ROM, and speed to accommodate vast clinical considerations for optimal outcome
- Expand feature for patient warm-up
- Pause feature increases low load prolonged stretch to enhance tissue remodeling



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# Vector 1 and Capsulotomy

The Vector 1 hand rehabilitation system offers specific clinical advantages when treating the post-operative considerations of capsulotomy.

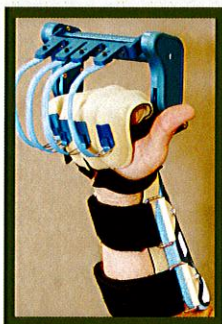
This surgical procedure is usually indicated secondary to an unsatisfactory rehabilitation outcome from the primary injury as it is not uncommon for patients who have been non-compliant to require this revision surgery.



Manipulation is a common practice associated with a capsulotomy. Although intra-operative motion is immediately gained from the procedure commonalities exist between the previous primary injury symptoms and the post-operative presentation of the involved surgical digits...namely the inflammatory response.

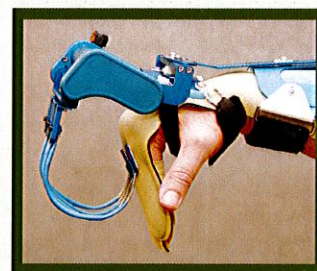
The inflammatory response reinstates the deposition of scar tissue and edema. Distal to proximal wrapping of the digits is a common technique utilized to manage pooling edema as the hand is commonly held in a dependent position during ADLs. Clinicians are often faced with the post-operative challenge of maintaining achieved intra-operative ROM.

Post surgical dressings which include wrapped digits create specific challenges to low powered hand CPM devices. A common historical complaint is that hand CPM devices could not achieve a true composite fist due to reversal on load.



The Vector 1 hand rehabilitation system has addressed this issue by offering up to two times the force available with previous hand CPM devices. The Vector 1 can be force graded to expand into increased digital flexion and extension as tolerated by the patient due to enhanced tissue extensibility allowing a soft-tissue warm-up.

When addressing the exceptionally challenging patient the Vector 1's unique finger plate design can be moved more proximally to leverage the desired joint. Migration of the machine due to exceptional stiffness can be eliminated with an elbow X-strap via attachment between the forearm splint D-rings.



Low load prolonged stretch can also be incorporated at end range flexion via the pause feature once edema concerns have been resolved from the mechanical pumping mechanism offered by continuous passive motion.

The Vector 1 has demonstrated positive patient outcomes when treating patients whom have undergone capsulotomy. Your representative looks forward to assisting with patient set-up when considering the advantages of the Vector 1 hand rehabilitation system.



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