

# Ten-7™

- Anterior Knee Pain
- Osteoarthritis Knee Pain
- General, Chronic Knee Pain



GUARANTEED  
TO MANAGE EVEN  
THE TOUGHEST  
KNEE PAIN



# Ten-7™

## The Knee Brace that



### THE TEN-7 INDUCES A NEURAL-INHIBITING EFFECT TO REDUCE KNEE PAIN

The femoral nerve is the primary functional and sensory nerve to the quads, knee and lower leg. Proper position of the Ten-7 Actuator is in the adductor canal. The femoral nerve is one of the tissues running through the canal. The canal's location is at the junction of the vastus medialis obliquus, vastus intermedius and the Sartorius muscles. Proper placement is crucial for achieving the most effective disruption of neural knee pain transmissions.

### THE TEN-7 IMPROVES ECCENTRIC MUSCLE FIRING



Chronic knee pain is often associated with diminished eccentric muscle control in the quads and Sartorius. The Ten-7 pre-stretches or lengthens the quads, Sartorius and hamstrings this muscle loading provides more controlled eccentric firing and a more efficient and explosive concentric muscle firing. This is called “elastic energy”<sup>1</sup>.

Eccentric muscle control is critical for reducing pain while descending stairs or any declining surface.



### THE TEN-7 REDUCES INTERNAL FEMORAL ROTATION FOR IMPROVING PATELLOFEMORAL JOINT UNLOADING

Weakness in the glutes and Sartorius cause the femur to internally rotate from the hip and pivot on the knee during weight bearing. This causes excessive loading on the lateral femoral condyle from the patella. This creates pain as excessive force is transmitted into the innervated subchondral bone. To help correct this problem, the Ten-7 increases the firing power of the glutes and Sartorius.

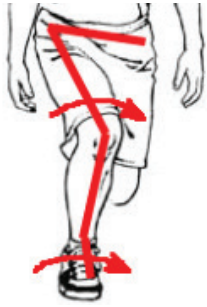
In-house step-down testing found the firing intensity of the gluteus maximus improved by 45% and in an 8” drop jump the glutes improved the glute firing by 13%. There was also an improvement of 18% glute strength in the first 20 degrees of swing phase in gait.



## Features of the Ten-7

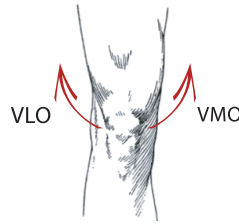
- Easily donned and doffed
- Fits on the thigh avoiding the typical knee brace discomfort in the popliteal area
- Very low profile. Easily fits under clothing but also can be worn on top of clothing
- Effectively replaces a bulky off-loader brace
- Reduces pain immediately when applied
- Comfortable
- Provides “springy” sensation to the leg
- Helps to naturally rehab anterior knee pain
- Total knee replacement surgeries can be pushed out because of reduced knee pain
- The Ten-7 is a less expensive treatment option from custom bracing or HA injections
- 30-day money back guarantee to reduce and manage knee pain

# Doesn't Fit on Your Knee



## THE TEN-7 HELPS SYNCHRONIZE THE FIRING OF VMO AND VLO

The VMO and VLO are antagonistic muscles that help balance patella tracking. When these muscles are not synchronized in their firing pattern, the VLO gets an early start and pulls the patella laterally<sup>2</sup>. The Ten-7 elongates the VMO and VLO helping these two muscles re-synchronize their firing pattern during the rehab process.



## THE TEN-7 IMPROVES PROPRIOCEPTION

The Ten-7's Actuator and Actuator Strap pre-tensions or lengthens the muscles. This lengthening process tensions the GTO (Golgi tendon organs) sensors in the tendons and muscle spindles that surround the muscle fibers creating a neurophysiological reaction called proprioception. These two important proprioceptors play a role in stability and balance. When a GTO is stimulated, it causes its associated muscle to relax by interrupting its contraction.

## IN-HOUSE TEN-7 PAIN TESTING

In an in-house white paper entitled, "Knee Pain Relieving Device- Breaking New Ground in Reducing Chronic Knee Pain" from 2011<sup>3</sup>, three types of knee pain were studied, anterior knee pain, osteoarthritis and general knee pain. Thirty-nine subjects participated. Each subject was classified as to the type of pain and was separated into one of the three groups. There was a 78% pain reduction in the AKP group of fifteen subjects, an 88% pain reduction in the OA group of eight subjects and a 66% pain reduction in the general, chronic pain group with fourteen subjects. Combining all three groups, there was a 74% improvement in Roland Morris scores, a 66% improvement in OSWESTRY index scores, and a 76% improve in WOMAC Pain Scale Scores.

## APPLICATION



Actuator



Position the actuator in the Adductor Canal



Tighten proximal and distal straps

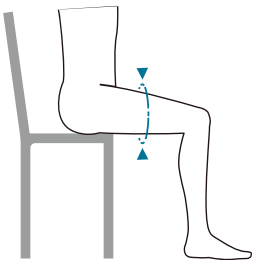


Apply the actuator strap

1. Stretch-shortening Cycle: a powerful model to study normal and fatigued muscle. PV Komi - Journal of Biomechanics, 2000.
2. Reflex Response Times of Vastus Medialis Oblique and Vastus Lateralis in Normal Subjects and in Subjects With Patellofemoral Pain Syndrome, Journal of Orthopedics & Physical Sports April 1996
3. "Knee Pain Relieving Device- Breaking New Ground in Reducing Chronic Knee Pain" from 2011





	SIZE	USL CODE	INCHES	CENTIMETERS
		<b>Pull-on</b>	Mid-thigh circumference	
	XS	BS51461	16.5 - 18	42 - 46 cm
	S	BS51462	18 - 19.5	46 - 50 cm
	M	BS51463	19.5 - 21	50 - 53 cm
	L	BS51464	21 - 23	53 - 58 cm
	XL	BS51465	23 - 25	58 - 64 cm
	XXL	BS51466	25 - 28	64 - 71 cm



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