



GUARDIAN
Multiligament
 REHABILITATOR™

*Wearable Rehabilitation Technology...
 Walk Your Way to a Stronger,
 Healthier Knee*

**IMPROVE PATIENT
 OUTCOMES!**

- Rehabilitation of MCL, ACL, LCL and Meniscus injury/ surgery
- Increases quadriceps and hamstring strength
- Accelerates recovery
- Provides superior support, comfort and stability
- Reduces pain and inflammation
- Eliminates Quadriceps Avoidance Gait / Arthrogenic Muscle Inhibition

BRACE SELECTION	INDICATION	STABILITY	PAIN RELIEF	STRENGTHENS QUADRICEPS AND HAMSTRINGS	ELIMINATES QUADRICEPS AVOIDANCE GAIT	GAIT RETRAINING WITH RETAINED EFFECT
Multiligament REHABILITATOR™	Accelerate Recovery from Injury/Surgery-Knee Support	✓	✓	✓	✓	✓
COMPETITIVE POST-OP ROM BRACE	Knee Support	✓				

The **MULTILIGAMENT REHABILITATOR™** provides gait correction to overcome post injury/surgery Arthrogenic Muscle Inhibition or a Quadriceps Avoidance Gait, the primary causal factors in muscle strength loss post injury/surgery. Arthrogenic Muscle Inhibition (AMI) is caused by an ongoing neural activation deficit of the quadriceps due to joint pain and/or joint effusion post knee injury/surgery. AMI results in a concurrent contraction of the extensor and flexor muscles at the end of swing phase in gait, resulting in poor heel to toe ankle biomechanics, decreasing normal neurological activation of the quadriceps muscles during gait. Quadriceps Avoidance Gait is a compensatory learned alteration in gait biomechanics, usually developed post injury/surgery, that reduces lower leg extension and diminished quadriceps activation in gait during heel to toe loading of the ankle/foot. By providing a biomechanically correct lower leg extension assist during gait, the Rehabilitator™ increases quadriceps activation while simply walking in the Rehabilitator™, significantly strengthening the quadriceps and hamstrings over time. Use of a Rehabilitator™ knee brace has been clinically shown to improve quadricep strength by 54% and hamstring strength by 28% after 90 days of brace wear. This is significantly higher than strengthening by exercise alone. By improving leg strength, recovery can be accelerated, and the patient can return to functional activities more quickly. This outcome is contrary to prior research findings that report that use of a traditional functional ligament brace can somewhat slow muscle strength recovery post injury/surgery.



- Patented dynamic dual **SWING ASSIST™** provides an extension assist during gait to effectively treat Quadriceps Avoidance Gait. The extension assist re-establishes a normal gait pattern post injury / surgery, enhancing the rehabilitation process of quad activation through a more functional neuromuscular re-education approach. By assisting the quad in the open chain component of gait, the stride is lengthened, allowing a proper closed chain (eccentric loading) component and re-establishing the proper muscle firing sequence facilitating leg strengthening and unbraced gait normalization with routine use.
- Unique adjustable **Pneumatic Bladder System** at the knee provides therapeutic compression and support at the knee joint, reducing pain and inflammation while providing excellent medial, lateral and rotational control of the knee during gait.
- Polycentric **ROM Control Hinge** allows for precise control of extension and flexion if needed.
- **Rotating Thigh Cuff** combined with the air bladder system and semi-rigid frame provides dynamic conformability to the leg during gait to maximize comfort and prevent brace migration.



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