



## Bodyblade Physical Effects

### Effects of Bodyblade on the neuromuscular system

The proprioceptors (receptors located in the joints, tendons, and muscles) provide feedback to the muscles, joints and brain. The muscles then produce rapid concentric (shortening) and eccentric (lengthening) contractions, which result in highly skilled adjustments in the control of movement. This muscle fiber recruitment results in increased muscular strength and endurance. It also increases the joint's **mobility** and range of motion, while protecting the user's joints. It also enhances coordination, **flexibility**, posture and the efficiency of muscle function.

By varying the positions of the body or direction of the flexing blade, Bodyblade can target specific muscle groups throughout the body. Bodyblade trains movement through muscular teams and patterns rather than isolated single plane muscles. This makes it a valuable tool for **rehabilitation**, performance sports training and **functional wellness**. Coaches have found that Bodyblade helps athletes increase their skill levels and improve their performance. Research has shown that using Bodyblade improves the individual's ability to reproduce joint motion more accurately and repetitively. Since it can be utilized at any angle and position, Bodyblade can mimic the movements in a particular sport and provide the required specificity of training. The resulting muscle fiber recruitment will also encourage increases in strength that are relevant for the particular sport. Bodyblade's use of inertia also helps the body to become more efficient at **agonist** (one side of joint)/**antagonist** (opposing side of joint or action) activities as it promotes a better balance between muscle acceleration and deceleration on both sides of the joint. This leads to **less trauma** and injury, and **less downtime** for athletes.

The key to Bodyblade's success in functional rehabilitation, performance training, and overall fitness is proprioception, power, stabilization, balance and coordination. **Physical therapists** have discovered that restoring normal movement patterns and contractions to muscles that control joints seems to assist painful areas. This includes extremities immobilized in a cast or brace which can be exercised with Bodyblade without initially requiring an excessive range of motion. This unique, oscillating action makes it an ideal choice for **treating acute injury, chronic disability and post-surgical rehabilitation** in a variety of environments and task-oriented activities.

Bodyblade tends to normalize the way in which the joints function, eliminating the potential for imbalance that can occur with other exercise systems. It also permits a high efficiency of motion, producing the greatest rehabilitation gains with the least amount of effort.



**Bodyblade... Unleash the Power of your Core!**

Hymanson Inc., P.O. Box 5100, Playa del Rey, CA 90296 Phone: 310-578-6500 Fax: 310-827-3400  
www.bodyblade.com Email: [moreinfo@bodyblade.com](mailto:moreinfo@bodyblade.com) 800-77BLADE (25233)



## Bodyblade for Rehab

As a rehabilitation professional, your goal is to provide a safe environment to improve the way your patients or athletes respond internally as well as to the gravitational forces we live with. The elements contributing to this process:

- [Stabilization](#)
- [Strength](#)
- [Endurance](#)
- [Power](#)
- [Balance/Coordination](#)

The compilation of these elements brings us to our ultimate result -- function. Rehabilitation is the process we perform that brings about function without causing harm in the process. Bodyblade, in it's unique application, contributes to all the elements necessary in rehabilitation.



### STABILIZATION:

The human skeletal muscles total 640. After you strip away the larger prime movers and most familiar groups such as the Pects, Lats, Delts, Biceps, Triceps, Traps, Quads, Gluts, Hamstrings, Gastroc's and a few more, what are you left with? A lot! The majority of the ensemble cast of movers in the body are for support, and preparation for exquisite movement in the body. The ability to sequence motor activity requires a progression of muscular involvement from the very deepest muscles proximally to the surface and most distant muscles distally. The smaller stabilizers are "King" in the human body. When they are working properly, the entire system will perform well. If the smaller and more strategic muscles are slow to react, weak or communicating poorly, the process of degeneration, or sudden injury is imminent.



### STRENGTH:

Developing strength is critical in the protection of the bones, ligaments, and the organs of the body. Strength is important to overcome the earth's gravity so we can successfully move about. The body maintains a primary and secondary restraint system. The primary restraint system is the muscular system. It's job is to protect the secondary restraint system which is the connective tissue or ligaments that provide stability to the bony system. Rehab training must strengthen and protect the primary system of muscles to avoid risking injury to the secondary system. Bodyblade provides resistance training for both Type I and Type II fibers in the muscle. Also known as slow twitch (Type I) and fast twitch (Type II).

### ENDURANCE:

The ability for a muscle or group of muscles to perform accurately over a sustained period of time is critical. Fatigue means breakdown of communication, loss of control, poor response and poor stability. Bodyblade works to enhance the muscles to perform more accurately over a longer period of time resulting in better posture and performance.

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#### **POWER:**

The training of the muscular system for strength alone is not sufficient. Strength should always be part of rehabilitation but on it's own will fall short of the goal.. Power is the measure of force and the distance of those forces over time. Speed is the key element when the discussion of power is introduced. Bodyblade trains the body to react rapidly to external stimuli and communicate accurately and quickly within the neuro-muscular system.

#### **BALANCE/COORDINATION:**

Balance is so important because it is the essence of good strength, endurance and power combined. When you have good balance or control of the body, you also have coordination of movement. The ability to balance the shortening and lengthening contractions of the body with co-contraction of the joints at just the right time contributes to wellness and stability. An elderly person trying to raise themselves out of a chair is more likely to fall from imbalance and loss of coordinated movement than weakness. The more we can provide instability in training to expand the "inner zone of control", the more we move the outer zone "loss of control" away from us. Bodyblade challenges the body to make very rapid and accurate movements to improve ultimate function for our patients.

**Bodyblade is a perfect choice for:** all forms of rehabilitation including pre or post operative exercises, Spinal Cord Injuries, Stroke, Group Training Classes, Home Exercise Programs for continuity from the clinic, or any number of indications for Sport Specific Functional Performance Training.

### Bodyblade Testimonials...



"Being a spinal cord injured person, the Bodyblade has allowed me to strengthen, condition and improve my overall stability. Bodyblade has helped me to function at the highest level. On a scale from 1 to 10, I give it a 10, a perfect score!"

- **Mike Utley, President, Mike Utley Foundation and former professional football player**

"I wanted to let you know how valuable we have found Bodyblade to be in the rehabilitation of our patients. We use it with the pre and post-op shoulders, knees and low backs. Its uses are only limited by the Therapist's imagination. My staff and my patients thank you"

- **Valerie Sinkus, PT Professional Physical Therapy Associates, Inc.**

"This is a wonderful product. It has helped me so much in the treatment of the tendonitis in my shoulder. It has also inspired me to start getting in shape!"

- **Mark Harman, Bodyblade Customer**

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