Putting physics into physical workouts

To some trainers, an unusual fitness tool is more than a gimmick

By Karin Beuerlein
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It’s constructed of a highly sophisticated polymer composite and is based on Newton’s laws of motion, but to you and me, it looks like ... a stick. To make it work, you flap it like the wings of a bird.

It’s called the Bodyblade, and you may have seen major-league pitcher Randy Johnson and other celebrities flapping it on TV infomercials.

The device’s inventor, physical therapist Bruce Hymanson, admits that people may look at his Bodyblade and think, “What a joke.”

It may be gimmicky-looking, but some physical trainers say this deceptively simple tool has some serious physics behind it.

Over the past few years, the Bodyblade has become a staple in the fitness and physical-therapy regimens of major-league sports, the Olympics and the military.

Cmdr. Mark Taylor, head physical trainer at Naval Hospital Great Lakes, Ill., uses the device as one of many tools for injury rehabilitation.

“I’ve been using the Bodyblade for at least five years,” he says. “We use it extensively for knee injuries and after anterior cruciate ligament surgery.”

Taylor says it is also useful for shoulder injuries, but he stresses that few studies have been published on the subject.

“I do believe that it is helpful in training balance as well as strengthening the musculature ...” he says. “If I didn’t have it, I could still do the job here, but it’s becoming more and more of a useful tool.”

Studies indicate, he says, that the Bodyblade increases patients’ proprioception — “their ability to tell where their extremity is in space,” Taylor says.

“As more research is done, I think it will be used more widely, especially in post-surgical injury.”

How it works

Bodyblade originally was designed as a rehabilitative tool for Hymanson’s patients.

“My concepts always emanated from building the body from the center out,” he says. “My philosophy is that we treat the unit as a physical team, so to speak, rather than isolating one area of the body or one group of muscles.”

— Bruce Hymanson
Inventor, Physical Therapist

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DO THE WAVE

Can waving a special stick tone your muscles? Here’s how the makers of one such product — the Bodyblade — say it works.

Use: Grip the Bodyblade in the middle and shake it. The flexible blade vibrates at a frequency of 4.5 times per second, regardless of force exerted.

Workout: The Bodyblade flexes some 270 times per minute. During a 10-minute workout, the muscles will flex 2,700 times each.

Variation: Changing position alters which muscle groups are worked.

Weight: 1 to 2.25 pounds
Length: 32 inches long to 5 feet long

Bodyblade
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rather than isolating one area of the body or one group of muscles.

In real-life activities, Hymanson says, more than one muscle group works almost every move. It’s important to train those muscles.

Working all 640 of the body’s muscles has a valuable side effect: restoration of a proper sense of balance. This is one reason, Hymanson says, his creation is an effective tool in rehabilitation, especially for elderly patients.

When you hold the Bodyblade in a certain position and shake it, the flexible material sends the force you generate right back at you. To maintain your balance, your body compensates by tightening the muscles in your core, “everything from the neck to the pelvic floor,” Hymanson says. It’s as if you were standing on the deck of a boat in stormy seas: Your body uses all its muscles to maintain your posture.

To use the Bodyblade, grip it in the middle with one or both hands on the rubber center and shake it. It shakes at a frequency of 4.5 times per second no matter how much or how little effort you exert. This allows you to establish a steady rhythm.

However, the force you apply to the blade does affect the depth of the flexing motion, which in turn determines how much resistance you work against (up to 34 pounds) and hence the intensity of your workout.

Placement and positioning can help you concentrate on certain muscle groups while you constantly work your core muscles. Some exercises are stationary; others work through a full range of motion, such as a golf swing.

The Bodyblade’s makers don’t claim the device can replace a traditional weight-training program. If you’re interested in building large muscle mass, they suggest using the Bodyblade for 15 minutes, just before your weight regimen, to get all your muscles prepared for the workout.

Although the Bodyblade is light and portable compared with weights or some other home-fit-

ness devices, you’ll still need at least 5 feet of unobstructed space in every direction in order to do a workout properly.

Bodyblades come in several sizes, geared toward different fitness or rehab goals. They range from 32 inches to 5 feet long, and from 1 to 2.25 pounds in weight. The resistance they generate and the retail price also vary by model, but expect to spend anywhere from $100 to $200.

To learn more about this device:
■ The maker’s official site, http://www.bodyblade.com, offers detailed information about the product (if you can stand to watch the long animated introduction).
■ Some users have posted their own product reviews on Justin Leonard’s “Fitness Infomercial Review” site, http://www.fitnessinfomercialreview.com/bodyblade.htm.

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