UWM RESEARCH FOUNDATION Technology Overview

Water weighted Vest for Core Activation

OTT ID # 1520

APPLICATIONS

Exercise, Activity, Training, Therapy, Athletics, Competition, or Rehabilitation

TARGET PROBLEMS

- Hands-free methods of using liquid as a weighted resistance are not easily accessible to users.
- Current methods do not include a simple way to adjust the weight of a liquid when used as the resistance.

KEY FEATURES

- **Effective –** Movement of water provides instability to better activate muscles of the body core.
- **Versatile –** The vest can be used for any number of exercises, rehabilitation, or training purposes.
- **User friendly –** Easy to modify weight amount from 1-20 pounds depending on need.
- **Low Cost –** Simplicity of design keeps manufacturing cost down which can be passed to consumer.
- **Quality –** The vest is made of breathable and comfortable materials that will last.
- **Range –** Various sizes of the vest can accommodate both men and women with various torso measurements, it can also accommodate children/small adults with various torso measurements, as well as custom sizes for special purposes and/or the disabled could also be designed.

TECHNOLOGY

Chad Henneberry, Assistant Athletic Trainer at the University of Wisconsin, Milwaukee (UWM) has developed a sleeveless vest that uses liquid as a form of resistance, instead of static weights, to be worn while performing movements related to exercise such as, balance training and core training. Initial studies show increased activation of multiple muscle groups when compared to a traditional weighted vest.

The vest could be used in many other activities such as training, therapy, athletics, competition, group workout classes, or orthopedic rehabilitation purposes. Flexible tubing is partially filled with liquid to generate a sloshing movement caused by shifting the body and vest weight during various movements. This tubing can be located on the front, back, and/or sides of the user and can be individually placed or removed from the vest to allow for adjustable weight. The user can perform movements with the added load maintaining the hands free. Multiple stabilizing muscles are engaged to counteract the momentum of the liquid when the vest is worn.

INTELLECTUAL PROPERTY

U.S Utility Patent 10,625,110 B2

ABOUT THE INVENTOR

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