

# National Sports Medicine Experts Discuss sam® Sport as a Non-Surgical Soft-Tissue Treatment for Athletes





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*“The most impressive results have been in our training room”* Dr. Moorman, Duke

sam® Sport is the only wearable active **ultrasound therapy** device cleared by the U.S. FDA for daily multi-hour treatment. The device is worn by the injured athlete during normal physiotherapy and recovery periods to accelerate the natural healing cascade and reduce pain by activating Collagen Lay-down, increased Oxygenated Hemoglobin in Muscles, stimulate Angiogenesis and increased Blood-circulation<sup>†</sup>.



**sam® Sport Placement for Active Ultrasound Therapy from Left to Right:** Hamstring, Knee Meniscus/ACL, Achilles and Ankle, and Rotator Cuff/Shoulder. The full sam® Sport placement list is available at <http://www.samrecover.com/instructional-videos>

Over the last decade, multi-hour sam® Sport therapy has been extensively studied in the laboratory and clinical research settings with research funded by the National Institutes of Health (NIH), National Science Foundation (NSF), U.S. Department of Defense (DOD), National Space Biomedical Research Institute (NSBRI) and the Center for the Integration of Medicine and Innovative Technology(CIMIT).<sup>†</sup> sam® Sport is covered by insurance for professional and collegiate athletes, and for a large portion of worker's compensation and no-fault insurance claims and carriers. As clinical research and insurance coverage for sam® Sport continues to expanded, a panel of Sports Medicine experts from across the United States convened in St. Louise, Missouri at the National Athletics Trainers Annual Convention to discuss clinical uses of sam® Sport on treating soft tissue injuries and best practices in utilizing the wearable non-invasive therapy.

### Sports Medicine Experts:

- **David Draper, EdD, ATC, FNATA**, Professor of Sports Medicine and Athletic Training, Brigham Young University

- **Thomas Best, MD, PhD**, Professor and Pomerene Chair of Family Medicine, Ohio State University
- **Claude T. Moorman, MD**, Professor and Executive Director of the Duke Sports Sciences Institute, Duke University
- **Justin Rigby, PhD, ATC**, Professor of Athletic Training and Nutrition, Weber State University
- **Karen Bloch DC, MS, ATC, CSCS**, Private Practice and Member of the United States Olympic Committee Sports Medicine Staff



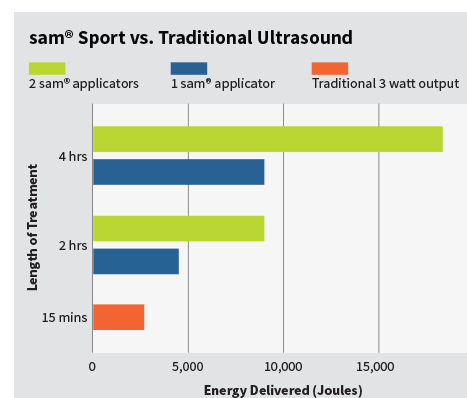
**Sports Medicine Panel Attendees from Left to Right in St. Louis, MO:** Dr. Claude T. Moorman (Duke University), Ms. Susan McHale (Company), Mr. Bryant Guffey (Company), Dr. Tom Best (Ohio State University), Dr. George Lewis (Company), Mr. Mike Gyzms (Company), Dr. Justin Rigby (Weber State University), Dr. David Draper (Brigham Young University) and Dr. Karen Bloch (US Water Polo).

The panel discussion focused on the types and severity of injuries that could be effectively treated with sam® Sport, and use of the device as a treatment approach as well as a prophylactic therapy. The group unanimously agreed that based on the clinical evidence and their own real-world experience sam® Sport is an effective treatment for tendon injuries such as tendonitis and tendinosis. The value of the device for the patient and physician comes from several differentiating features of the product including that it is both a non-pharmacologic and a non-surgical treatment option, and that it is a convenient therapy that can serve as a stand-alone treatment or be used as an adjunct to other treatment approaches for the patient to stimulate soft-tissue repair. According to Dr. Thomas Best of the Ohio State University *“There is no current gold-standard treatment for chronic and overuse tendon injuries, yet they are very prevalent”* and *“sam® Sport could fill this treatment gap for us”*. Dr. Claude T. Moorman of Duke University remarked on the low-risk and cost-effectiveness of sam® Sport, *“Traditionally, a patient has to fail nonsteroidal anti-inflammatory injections and physical therapy to ever get approved for surgical treatment.”* *“A medical device like sam® Sport that effectively treats pain and accelerates recovery of injured tissues early in the care pathway saves both patients and providers from needless frustration and more efficiently arrive at improved outcomes for the patient.”*

### *“Distinct advantages over traditional ultrasound”*

**Dr. Draper, Brigham Young**

Dr. David Draper of Brigham Young University, stated that there are a *“myriad of therapeutic uses on soft-tissue injuries for sam® Sport”* and *“The number one reason people come to see us is the pain – sam® Sport can help alleviate that pain allowing the patient to do more work.”* He went on to say *“sam® Sport*



**Advantages:** Daily energy delivery by sam® Sport is substantially greater than traditional ultrasound.

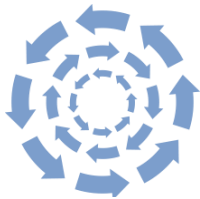
can be a medical tool in the athletic trainers' and physical therapists' treatment regimen with distinct advantages over traditional ultrasound:

1. ***It can be applied and worn anywhere.***
2. ***sam® Sport is easy to use typically taking less than 5 minutes to administer.***
3. ***The device is portable—you can take it with you.***
4. ***sam® Sport is applied for a long period of time (from 1 to 4 hours) that delivers more energy to the tissues than a typical 5 to 10-minute traditional ultrasound treatment.***

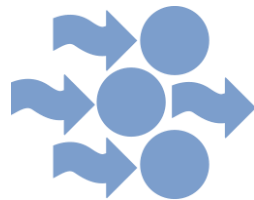
In addition to tendon injuries, the panel universally expressed support for the use of sam® Sport in the treatment of muscle injuries and strains. Dr. Moorman remarked, *“The most impressive results have been in our training room with hamstring injuries.”* The panel further agreed that sam® Sport could be effectively utilized as both a therapeutic and a prophylactic therapy preventing injury.

*“Think about the biology of how sam® Sport works.”* Dr. Best, Ohio State

Dr. Best from Ohio State University stated *“Think about the biology of how sam® Sport works. It would make sense to me that you would use it more when you are doing a treatment whether it is eccentrics for an Achilles or a patellar tendinopathy, and you’re hoping to increase blood flow and transfer of nutrients and growth factors that would promote tissue healing.”* Dr. Rigby agreed with this treatment approach stating *“sam® Sport would probably work either before or during activity, however during activity it would be much more effective than putting it on passively afterwards.”*



Increased Circulation



Greater Nutrient Transfer



Vigorous Diathermy



Collagen Lay-Down

**Mechanisms of Action:** More information about the sam® Sport mechanisms of action above are available at the company website here <http://www.samrecover.com/how-does-it-work>

A similar approach to pre-treatment or treatment during activity can be applied to sports as well as work-related injuries. Dr. Draper explained why sam® Sport is being integrated into collegiate athletics, *“We can send the athlete out of the locker room with a device and instruct them to use it for several hours right before practice, before they come in to get taped.”*

In summary, the panel of sports medicine experts who have deep knowledge and first-hand experience with the sam® Sport, expressed great enthusiasm for the clinical use of the device for the treatment of tendon and muscle injuries, as well as in the prophylactic use in work- and sports-related overuse injuries. The experts agreed on the significant value of sam® Sport to the healthcare system from the non-pharmacologic and non-invasive device.

#### Reference Documents<sup>†</sup>

- *Intramuscular Heating Effect Produced by Long Duration Continuous Low Intensity Therapeutic Ultrasound (LITUS). Journal of Athletic Training. 2015.*
- *The sam® Sport system for Acute and Chronic Musculoskeletal Injuries, Clinical and Scientific Dossier 2015*
- *Accelerated Recovery Through Ultrasound Therapy: Lactic Acid Clearance and Muscle Recovery. National Athletic Trainer’s Association, Annual Convention. St. Louis, MO. June 2015.*
- *Sustained Acoustic Medicine: Wearable, Long Duration Ultrasonic Therapy for the Treatment of Tendinopathy. The Physician and Sports Medicine. Sep 2015.*