

Putting a Limit

Treating military personnel for musculoskeletal *[involving muscles, tendons, ligaments, and bones]* injuries, whether incurred in the line of duty or during recreational events, is comparable to treating professional athletes. As a result, military medicine instituted the sports medicine and rehabilitation therapy (SMART) concept, which established centers committed to return-to-readiness programs.

The SMART approach to diagnosis, treatment and reconditioning of occupational and non-occupational musculoskeletal injuries involves athletic trainers, physicians and podiatrists. These people have been trained in sports medicine and physical therapy, and they know how to rehabilitate and return injured Sailors and Marines to work in an expeditious manner. Before SMART Centers opened on both the East and West Coasts, Sailors and Marines sometimes had to wait up to 90 days for a diagnosis and physical-therapy treatment of their musculoskeletal injuries. Now, the average wait time for both evaluation and treatment is one to four days.

The SMART Center at Branch Medical Clinic, Pearl Harbor, Hawaii, became the Navy's first pier-side facility of its kind. Located within 1,000 yards of the pier, it provides easy access for shipboard personnel. Injured Sailors and Marines work with a team, consisting of a sports-medicine physician, physical therapist, and physical-therapy technicians to develop and implement a treatment plan that focuses on recovery and return to duty. The team educates the patients about their injuries and demonstrates the exercises necessary to get back to full duty.

The sports-medicine doctor or physical therapist places patients in a daily treatment program for their musculoskeletal injuries, while maintaining their cardiovascular fitness. This combined treatment of the injury and preservation of overall physical fitness expedites the return to full duty without risking further injury.

Primary-care providers (routine health providers) and shipboard independent-duty corpsmen send their injured Sailors and Marines to the SMART Center for medical evaluation and treatment without waiting for

appointments. Timely diagnosis and treatment helps to reduce pain and expedites treatment by decreasing swelling and stiffness. The benefit is an accelerated return of range of motion, strength endurance, and power.

Sports-medicine specialists interview, examine and evaluate each patient to determine the type and extent of the musculoskeletal injury. After the diagnosis is confirmed, the injured person is paired with a physical therapist or therapy trainer, who assists the physical therapist to improve mobility, relieve pain, and prevent or limit permanent physical disabilities.

Reconditioning therapy and training starts with specific therapeutic interventions designed to reduce pain and inflammation and enhance mobility and healing. The sports-medicine doctor and physical therapist tailor a treatment plan for each patient's specific needs and abilities. The team approach includes education of the injured person on the specifics of his or her injury and a personal treatment plan, as well as how to avoid future injury.

Active patient involvement is a key element of the SMART-Center concept. The team requires the patient to demonstrate proficiency in stretching, strengthening and endurance exercises designed to accelerate the healing process. The individual advances through progressive exercises that correspond to the stages of healing. Though the patient spends time in the SMART Center exercising and working on reconditioning, he or she also must spend a significant amount of time exercising independently in order to have more than minimal improvement. This approach contributes appreciably to the success of the reconditioning treatment.

The final phase of rehabilitation concentrates on returning the injured person to duty. During this limited-duty status, where the injury prevents performance of full military duties, the primary-care manager focuses on physical activities the individual can safely perform, as well as physical limitations and activities to avoid. With this focus on rehabilitation to duty, the Sailor or Marine maintains aerobic conditioning, strength, and endurance. For example, a leg injury

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Basketball is just one of many recreational and sports events in which Sailors and Marines incur musculoskeletal injuries.

Navy photo by MC1 James E. Foehl

temporarily can prevent a person from running, so swimming or bicycling may be a suitable substitute aerobic activity. The goal is to return the patient to as good or better physical condition than he or she was in before the injury.

Active-duty members don't have to be injured to benefit from the SMART Center. Besides offering extensive rehabilitation of injured Sailors and Marines, the SMART Center also provides injury-prevention services to the fleet. Sailors and Marines learn how to avoid work-related and recreational injuries. Class topics include fitness/injury prevention, stretching and flexibility, and training to run.

Pearl Harbor's SMART Center also partners with the Navy Exchange to educate active-duty people on how to select athletic footwear that will help prevent musculoskeletal injuries. The SMART Center maintains a display of the athletic footwear that the local Navy Exchange has in stock. Staff members can determine the wearer's foot type and make recommendations on a proper athletic shoe, based on foot type, size, and intended use. ■

Resources:

- <http://www.nata.org/newsrelease/archives/000126.htm> [*USMC Transforms New Recruits Into "Warrior Athletes" in Safest Manner...*]
- www.safetycenter.navy.mil/success/stories/51-100/0056.pdf [*Pearl Harbor's SMART Center Returns the Fleet to Readiness*]
- http://www.news.navy.mil/search/display.asp?story_id=2890 [*Sports Medicine Reconditioning Team Center Opens at Pearl Harbor*]
- starbulletin.com/2002/08/11/news/story7.html [*Navy Revamps Injury Care*].