

# Chapter 25

## SPORTS AND RECREATION OPPORTUNITIES

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By participating in the Hawaii Ironman World Championships, I was accomplishing several things at multiple levels. As an example to all amputees, I was able to highlight the great things that anyone can accomplish through training and dedication to fitness. To my soldiers, I showed that heart and determination can serve you through the toughest challenges and as an Ironman, I was fit to fight. Most importantly, I was proving to myself that I could achieve more as an amputee than I had ever done in my able-bodied life.

—US Army Major David M Rozelle, the first war amputee to ever complete the grueling Ironman World Championship triathlon in Hawaii, on the impact of sports and recreation to his rehabilitation. The event, held in October 2007, included 2.4 miles of swimming, 112 miles of biking, and 26.2 miles of running.

## INTRODUCTION

In spite of their traumatic injuries, individuals who incur amputations as a result of their military service have access to sports and recreation opportunities that enable them to lead active, healthy, and productive lives. Sports and recreation for Americans with disabilities was introduced in the 1870s, when deaf athletes competed in the sport of baseball at a school for the deaf in Ohio. In the late 1940s, at the close of World War II, famed neurosurgeon Sir Ludwig Guttmann of Stoke Mandeville, England, introduced wheelchair sports as a means to rehabilitate veterans with disabilities, including those with amputations.<sup>1</sup> Since then, sports and recreation for the disabled has proved to be a powerful tool in the rehabilitation process, providing a number of significant therapeutic benefits.<sup>2</sup>

Wheelchair Sports, USA (WSUSA), originally

known as the National Wheelchair Athletic Association, was established in 1956 to accommodate athletes with disabilities who wanted to participate in sports other than basketball. Many of the athletes who helped create the organization were World War II veterans, as well as individuals with quadriplegia. WSUSA now offers sporting events to youth with disabilities, having hosted its first youth competition in 1984.<sup>3</sup>

The National Veterans Wheelchair Games, with 16 events, is the largest annual wheelchair sporting event in the world. It now includes an amputee clinic, developed with emphasis on amputees competing on prostheses in various track and field events and facilitated by athletes and coaches of the US Paralympic team. The US Paralympics is the highest caliber sporting event for elite athletes with disabilities.

## THERAPEUTIC BENEFITS

Guttmann stated, "...the aims of sport embody the same principles for the disabled as they do for the able-bodied; in addition, however, sport is of immense therapeutic value and plays an essential part in the physical, psychological, and social rehabilitation of the disabled."<sup>1(p12)</sup> Coyle et al<sup>4</sup> cite a number of studies documenting the following therapeutic benefits related to sports and recreation for the disabled:

- Improvement in physical health status: participation in various exercise and fitness activities resulted in significant improvements in cardiovascular and respiratory functioning, and increased strength, endurance, and coordination for persons with disabilities including paraplegia, cystic fibrosis, and asthma.
- Reduction in complications related to secondary disability: physical activity has been demonstrated to reduce secondary medical complications arising from spinal cord injury and other physical disabilities.
- Improvement in long-term health status and reduction in health risk factors: lowered cholesterol levels, reduced heart disease risk, and improved ability to manage chronic pain were reported for persons with physical disabilities.
- Improvement in psychosocial health and well-being: decreased depression, improved body image, and increased acceptance of disability have been reported for physically disabled participants in fitness and athletic activities.
- Reduction in reliance on the healthcare system: participation in exercise and other physical recreation interventions by persons with disabilities resulted in reduced use of asthma medication, and in decreased anxiety and stress of a magnitude equal to or greater than that accomplished through medication. A group of wheelchair athletes demonstrated a rehospitalization rate that was one-third that of a matched group on nonathletes.

## CLASSIFICATION

Classification for disabled athletes including amputees is a concept that applies to competitive sports and not to the wide range of recreation and sport activities encompassed in therapeutic, recreational, or fitness sport. The element of competition introduces such factors as rules and regulations for the sport, fairness, and equal opportunity for success despite great difference in individual impairments. Examples of this concept in able-bodied sport include grouping of participants by gender or age, and in certain sports such as weight-lifting, by body weight. When this concept is applied to amputee sports, it seems obvious, for example, that the competitor with an above-knee level of limb loss will be disadvantaged in competition with a below-knee amputee in a sport in which lower limb function is a factor.

From the earliest days of amputee sport, the process of determining the individual's degree of limb loss, or conversely the degree of residual limb function, was quite familiar in trauma surgery, so the first step in classification was considered a medical one. The language of amputee classification has not changed, based as it is on the anatomical facts of limb loss or preservation. Anatomical details, such as extremity or extremities involved and the level of loss within an extremity, represent the basic first step in grouping amputees in fair sport competition. This is sometimes described as "general classification."

Organized amputee competitive sports and classification was created and developed within the International Sports Organization for the Disabled (ISOD), founded in 1964. The ISOD classification system changed over time. Originally, amputee competitors internationally were divided into 27 classes according to their indi-

vidual physical deficits. However, this approach led to insufficient numbers of competitors in each class and was unworkable. A decision to reduce the number of classes to 12 was made after the Toronto Olympiad in 1976, and in the 1992 Barcelona Paralympics the number was further reduced to nine, as follows<sup>1,5</sup>:

- Class A1: double above-knee (A/K)
- Class A2: single above-knee (A/K)
- Class A3: double below-knee (B/K)
- Class A4: single below-knee (B/K)
- Class A5: double above-elbow (A/E)
- Class A6: single above-elbow (A/E)
- Class A7: double below-elbow (B/E)
- Class A8: single below-elbow (B/E)
- Class A9: combined lower and upper limb amputations

As disability sport has developed, the role of the individual sports federations has become more prominent, and the classification process has become incorporated into the rules of individual sports. In sitting volleyball for lower extremity amputation, for example, the regulations allow all eligible competitors to participate as one class. In wheelchair sports, lower extremity amputees are governed by the rules of the wheelchair sports organization that pertains primarily to spinal paralysis. Winter sports classification is based on the amount of technical device assistance used to allow the amputee to ski, such as the use of one or two adapted ski poles or sitting position for sledge racing. As the rules in specific sports change, classification may become more complex, but the anatomical details of amputation have remained the key determinant in amputee sports classification.

## ASSISTIVE TECHNOLOGY

Today, the number of sports and recreation opportunities for veterans with disabilities is extensive, due in large part to advances in assistive technology that compensates for impairments. The Department of Veterans Affairs (VA) Veterans Health Administration is exemplary within the United States in the provision of adaptive recreational and sports equipment. The VA provides a variety of *adaptive* sports and recreation equipment to facilitate healthy living. Devices include sports wheelchairs, handcycles, skiing equipment, bowling equipment, and adaptations for archery, just to name a few. The Clinical Practice Recommendations for Issuance of Recreational and Sports Equipment, written by an interdisciplinary team with the VA

Prosthetics Clinical Management Program and approved by the under secretary for health, outlines the recommended approach for providing adaptive equipment to beneficiaries. Key concepts are summarized below. The entire document, including comprehensive information about recreation and sports equipment provided by the VA and the process for purchasing equipment, see [www.prosthetics.va.gov](http://www.prosthetics.va.gov).

Each veteran is entitled to an individualized assessment for adaptive recreation and sports equipment. The evaluation includes examining the veteran's medical diagnoses, prognosis, functional abilities, and goals. Veterans and active duty service members enrolled for VA care with loss or loss of use of a body part or

function for which an adaptive recreation device is appropriate may be prescribed and provided equipment. Adaptive sports or recreation technology may be issued to veterans seeking to enhance or maintain their health and attain a higher rehabilitation goal through sports or recreation and who meet eligibility criteria. Eligibility criteria includes (but is not limited to):

- medical clearance to perform the activity;
- completed education on appropriate activity and equipment options;
- demonstrated commitment to the activity through regular participation;
- opportunity to participate in the activity consistently (for example, snow must be adequate for cross-country skiing);
- trial of appropriate equipment options configured for specific needs and abilities;
- sports and recreation goals supported by the device; and
- demonstrated ability to use, transport, and store the equipment.

The VA defines “recreational leisure equipment” as any specialized equipment intended for recreational activities that does not inherently exhibit an athletic or physical rehabilitative nature. Examples include adaptive devices for hobbies and crafts or adaptive fishing or hunting devices. The VA defines “recreational sports equipment” as any specialized equipment intended to be utilized in a physically active or competitive environment. Examples include sports

wheelchairs, handcycles, sit skis, and artificial limbs for recreational or sports applications. Powered devices for sport participation can potentially be provided to individuals whose activities are severely limited without their use when the individual meets general criteria for power mobility. An example of powered sports equipment is an electric-powered wheelchair for powered wheelchair soccer. Recreation and sports technologies provided by the VA must be adaptive in nature to specifically compensate for loss of or loss of use of a body part or body function. Standard nonadaptive equipment such as skis, boats, and two-wheeled bicycles are not provided by VA.

Accessories for adaptive equipment can also be provided when justified. For example, a car carrier to transport the device to a safe training area or indoor rollers for handcycles or racing wheelchairs in areas with inclement weather may be considered. Seating interventions for postural support and skin protection or specific adaptations for limited hand function may also qualify. The VA Prosthetics and Sensory Aids Service covers repairs and service on sports and recreation equipment per standard policy and procedure. A knowledgeable clinical professional (recreation therapist, rehabilitation engineer, kinesiologist, physical therapist, or occupational therapist) must be involved in the comprehensive physical evaluation, equipment trials, selection and modification of devices, and education and training. The clinician works closely with the athlete, other equipment experts, and coaches to support the long-term goals of sports and recreation participation.

## ACTIVITIES

The information provided below is intended to be a general introduction to sports and recreation opportunities available to amputees in the United States.<sup>6-8</sup>

### Aerobics/Physical Fitness

Aerobics is a system of exercise designed to improve respiratory and circulatory function. Disabled Sports, USA (DSUSA) has developed a series of aerobic and strength training videotapes for amputees, paraplegics, quadriplegics, and those with cerebral palsy. DSUSA also has established fitness clinics in several cities across the United States.

### Air Guns/Shooting

Air rifle and pistol shooting came onto the US competitive sports scene when WSUSA created a program in 1982. Competition requires shooting

from three positions, using a specially designed shooting table or a wheelchair attachment on the athlete's wheelchair. These positions are in accordance with the International Shooting Committee for the Disabled. The sport is organized nationally through the National Wheelchair Shooting Federation/WSUSA. Shooting is a Paralympic sport (Figure 25-1).

### Archery

Archery is organized by Disabled Archery USA, in accordance with Fédération Internationale Tir à l'Arc rules. Archers shoot 72 arrows from a distance of 70 m at a target of 122 cm. The National Archery Association has made a commitment to the US Olympic Committee/US Paralympics to act as the national governing body on behalf of archers with disabilities. Archery is a Paralympic sport (Figure 25-2).





**Figure 25-1.** Air rifle shooting, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.

## **Basketball**

The National Wheelchair Basketball Association, which organizes the sport nationally, currently consists of 185 teams competing in 21 conferences. Conference play culminates in annual men's, women's, youth, and collegiate national tournaments held each spring. Wheelchair basketball rules are a slightly modified form of the National Collegiate Athletic Association rules to accommodate the use of a wheelchair. Wheelchair basketball is a Paralympic sport (Figure 25-3).

## **Bicycling/Handcycling**

Handcycling is a form of adaptive cycling that enables athletes of all abilities to ride a "bike" exclusively using the upper body. Bicycle adaptations for hand propulsion include tandem cycles, units that attach to a wheelchair, and some true bicycles. Some models are designed for children. Handcycling follows the rules of the US Handcycling Federation and is governed by WSUSA. Both cycling and handcycling are Paralympic sports; handcycling, which made its first appearance in Athens, Greece, in 2004, is one of the newest competitions at the Paralympic Games (Figure 25-4).

## **Billiards**

Billiards is regulated by the Wheelchair Poolplayers Association. All players must use a wheelchair for pool competition and must remain seated at all times while at the table (Figure 25-5).



**Figure 25-2.** Archery, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.

## **Bowling**

Wheelchair bowling is regulated by the American Wheelchair Bowling Association using modified American Bowling Congress rules. The Association hosts an annual national tournament and sanctions numerous other tournaments and local league play (Figure 25-6).

## **Camping**

The Office of Special Populations of the National Park Service maintains up-to-date information on accessible parks and offers an individualized search



**Figure 25-3.** Basketball, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-4.** Handcycling, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.

service for a particular geographic area. Many groups organize camping trips into the wilderness for individuals with disabilities.

### Canoeing

Canoeing offers freedom to explore areas where a wheelchair will not go. Open canoes offer easy entry and exit and provide room for friends and gear, including wheelchairs.

### Curling

Wheelchair curling is a game of great skill and strategy. The first World Cup in Curling for wheelchair players was held in January 2000 in Crans-Montana, Switzerland. Wheelchair curling had its debut at the Torino 2006 Paralympic Winter Games. The sport is open to male and female athletes with a physical disability in the lower part of the body, including athletes with significant impairments in lower leg/gait function (eg, spinal injury, cerebral palsy, multiple sclerosis, double leg amputation) who require a wheelchair for daily mobility. Each team must include male and female players. The game is governed by and played according to the rules of the World Curling Federation, with only one modification—no sweeping (Figure 25-7).

### Fencing

Through the sport of wheelchair fencing, athletes practice the centuries-old art of swordsmanship. Wheelchair fencing was developed by Sir Ludwig



**Figure 25-5.** Billiards, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-6.** Bowling, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.



Guttmann at the Stoke Mandeville Hospital and introduced at the 1960 Paralympic Games in Rome. In 2006, 24 countries practiced wheelchair fencing. Requiring a combination of agility, strength, and concentration, fencers compete on one or more of the three weapons, foil, epee, or saber. Athletes compete in wheelchairs that are fastened to the floor. The official governing body is the International Wheelchair and Amputee Sports Federation. Wheelchair fencing is a Paralympic sport.

### Fishing

Fishing is a sport that can be fully enjoyed by people with disabilities; a variety of assistive devices are available to meet their needs. Competitive bass fishing tournaments for anglers with physical disabilities are held throughout the United States, including the Paralyzed Veterans of America (PVA) Bass Tour (Figure 25-8).



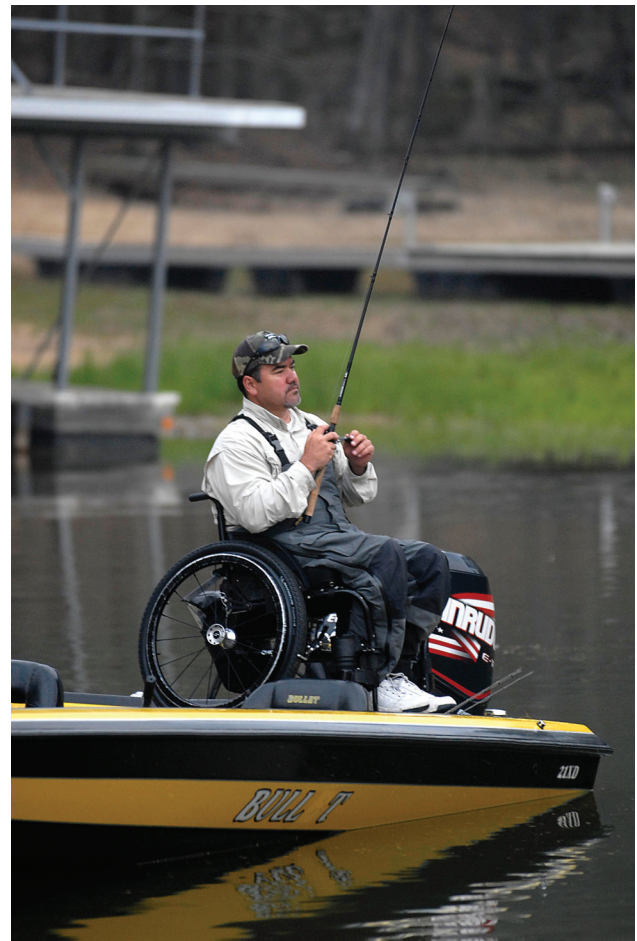
**Figure 25-7.** Curling, 27th National Veterans Wheelchair Games, 2007, Wisconsin.  
Photograph: Courtesy of National Veterans Wheelchair Games.

### Flying

Hand-controlled flying has grown in popularity since the Federal Aviation Administration approved the use of portable hand controls.

### Football

Although it is a fledgling sport in terms of national organization, wheelchair football has been played for many years. Only a few modifications of the National Collegiate Athletic Association rules have been made for the sport. These include a 60-yard surface playing field with 8-yard end zones, six-person teams, two-hand touch tackles, down-field throws to simulate kicks, and 15 yards for a first down.



**Figure 25-8.** Southeastern Paralyzed Veterans of America BASS Tournament, 2008.  
Photograph: Courtesy of National Veterans Wheelchair Games.

## Golf

Golf is easily adapted for people with disabilities through the use of modified golf equipment. Instructional clinics are popular throughout the United States.

## Hockey

Sled hockey is played at the regional, sectional, national, international, and Paralympic levels. Ice sled (sledge) hockey was invented at a Stockholm, Sweden, rehabilitation center in the early 1960s by a group of Swedish men who, despite their physical impairment, wanted to continue playing hockey. The group modified a metal-frame sled, or sledge, with two regular-sized ice hockey skate blades that allowed the puck to pass underneath. Just as in ice hockey, sled hockey is played with six players (including a goalie) at a time. Players propel themselves on their sledge by using spikes on the ends of two 3-foot-long sticks, which also allow the player to shoot and pass ambidextrously. Rinks and goals are regulation Olympic-size, and games consist of three 15-minute stop-time periods. Sled hockey is a Paralympic sport.

## Horseback Riding

Horseback riding for the disabled is a popular therapeutic activity offered at a number of stables throughout the United States. Equestrian is a Paralympic sport.

## Hunting

Hunting with either a bow-and-arrow or gun is regulated by state law. Many states and organizations have programs designed specifically for the disabled. For more information, contact individual state wildlife management services.

## Kayaking

Opportunities for competitive kayaking—both whitewater and flat water—are expanding. The sport demands primarily upper-body strength, and athletes with lower level disabilities can compete equally with nondisabled competitors. The Disabled Paddlers Committee of the American Canoe Association governs the sport.

## National Disabled Veterans Winter Sports Clinic

The National Disabled Veterans Winter Sports Clinic is currently the largest rehabilitative program of its type in the world and includes adaptive physical

activities as well as workshops and educational sessions that aid in the rehabilitation of severely disabled veterans. Activities such as Alpine and Nordic skiing, snowmobiling, scuba diving, fly fishing, wheelchair golf, wheelchair self-defense, rock wall climbing, sled hockey, trapshooting, blues harmonica instruction, dog sledding, goal ball for the visually impaired, curling, wheelchair fencing, and amputee volleyball are only a small sampling of adaptive sports and activities that have been offered over the past 20 years. Set in the Rocky Mountains in Colorado, the Winter Sports Clinic targets disabled veterans with spinal cord injuries, amputations, neurological disorders, and visual impairments to improve physical well-being, mental health, and self-esteem. Copresented by the VA and Disabled American Veterans, the event hosts over 400 disabled veterans each year.

## National Veterans Wheelchair Games

Developed by the VA in conjunction with the International Year of Disabled Persons, the National Veterans Wheelchair Games made its debut on the grounds of the McGuire VA Hospital in Richmond, Virginia, in 1981. There, 74 veterans participated in track, field, swimming, table tennis, slalom, bowling, and billiards. With each successive year, the number of competitors has grown, and now more than 500 veterans compete annually. In 1985 PVA became a copresenter, lending expertise in sports management and fundraising.

The National Veterans Wheelchair Games is now the largest annual wheelchair sporting event in the world, with 16 core events, including archery, basketball, bowling, handcycling, nine ball, quad rugby, softball, swimming, track and field, and weightlifting, conducted in a 4-day meet. Athletes range in experience from novice to master (age 40 and up), and seven physical classification levels ensure equal competition. In 2006 the VA and the US Olympic Committee signed a memorandum of understanding pledging mutual cooperation on training opportunities for veterans to qualify for future Paralympic teams. In 2007 an amputee clinic emphasizing amputees competing on prostheses was held for the first time, with various track and field events conducted and demonstrated by athletes and coaches of the US Paralympic team.

The National Veterans Wheelchair Games is open to all veterans eligible for healthcare through VA who have a physical disability requiring the use of a wheelchair for sports competition. The secretary of Veterans Affairs can and has made exceptions to this requirement to include active duty service members in their initial stages of rehabilitation who may not have been officially discharged from the service. This could



include men and women who served in Operation Iraqi Freedom, Operation Enduring Freedom, or other conflicts. Veterans and service members attending the National Veterans Wheelchair Games for the first time receive an opportunity to gain knowledge from other veteran athletes and to acquire sports skills.<sup>9</sup>

### Paralympic Games

The Paralympic Games is an international competition among each nation's elite athletes with physical disabilities, including amputees, and is second in size only to the Olympic Games. The Paralympic Games and the Paralympic Winter Games follow the Olympic Games and Olympic Winter Games at the same venues and facilities. The Paralympic Games have been played since 1960 and now feature competition in 19 sports. The Paralympic Winter Games, which showcase four sports, were first held in 1976. The following Paralympic sports include competition for amputees: archery, basketball, curling, cycling, equestrian, fencing, powerlifting, rowing, rugby, sailing, shooting, skiing (Alpine and Nordic), sled hockey, swimming, table tennis, tennis, track and field, and volleyball.

The Paralympic Games has three guiding principles: quality, quantity, and universality. The principle of quality is associated with the Games' grade of excellence, accomplishment, and attainment, achieved by the exciting and inspirational showcasing of elite athletes. Quantity is ensuring that athletes have the support and tools necessary for success, and universality is establishing conditions that reflect the diverse nature of the athletes, including gender and disability types.<sup>10,11</sup>



**Figure 25-9.** Power soccer, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.

### Power Soccer

With the growth of wheelchair sports, power chair users now have a competitive sport of their own. Power soccer is played with four players on a team trying to push an 18-in physio-ball over the end line of a regulation basketball court for a score. Thick plexiglas guards protect the players' feet and wheelchairs and allow the player to control the ball (Figure 25-9).

### Quad Rugby

Quad rugby is a unique, competitive sport for quadriplegics. The game is played on a basketball court by four-member teams using a volleyball. The objective is to carry the ball across the opponent's goal line. WSUSA is the national governing body for this sport. Quad rugby is governed by the US Quad Rugby Association and is a Paralympic sport (Figure 25-10).

### Road Racing

Wheelchair road racing is generally run in conjunction with established road races, and wheelchair athletes compete in a separate division against other wheelchair athletes.

### Sailing

New designs in sailboats and adaptive equipment allow sailors with disabilities to get on and off and maneuver around sailboats with no or minimal assistance, enabling them to handle a boat much as a nondisabled person would. Sailing is a Paralympic sport.



**Figure 25-10.** Quad rugby, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-11.** Slalom, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-13.** Swimming, 23rd National Veterans Wheelchair Games, 2003, Long Beach, California.  
Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-14.** Table tennis, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-12.** Softball, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.

## Scuba Diving

Scuba diving has become readily available to people with disabilities as instructors become more aware of these divers' capabilities.

## Skiing

Both competitive and recreation skiing is available for people with disabilities. Athletes can compete in downhill racing, slalom, and giant slalom. Amputees compete standing up in either three- or four-track (ie, with outriggers skis) competition or use a sit-ski or mono-ski, depending on their disability. Nordic and Alpine skiing are governed by DSUSA and are Paralympic sports.

## Slalom

Slalom is a unique wheelchair sport that does not parallel an established able-bodied sport. It is a timed test of speed, dexterity, and maneuverability in which competitors follow an obstacle course clearly marked by arrows, flags, and gates. Slalom competition is governed by Wheelchair Athletics of the USA and WSUSA (Figure 25-11).

## Softball

Competitive wheelchair softball is played under the official rules of 16-inch slow-pitch softball as approved by the Amateur Softball Association (Figure 25-12).



## Swimming

Competitive and recreational swimming can be enjoyed by those with disabilities. Swimmers compete in a variety of distances in the standard strokes of freestyle, backstroke, butterfly, and breaststroke. Swimming is governed by USA Swimming and is a Paralympic sport (Figure 25-13).

## Table Tennis

Singles and doubles competition for men and women is played regionally, nationally, and internationally, in accordance with US Table Tennis Association rules. Quadriplegics and others with impaired hand function

play table tennis by strapping or taping the paddle to their hand. Table tennis is governed by the American Wheelchair Table Tennis Association and is a Paralympic sport (Figure 25-14).

## Tennis

Wheelchair tennis can be enjoyed with nondisabled family and friends. The sport follows the rules of the US Tennis Association with one exception: the wheelchair tennis player is allowed two bounces instead of one. Athletes are classified according to their performance in competition. Introductory lessons are often available at community tennis programs. Wheelchair tennis is a Paralympic sport.

## Track and Field

Track events are run on a hard surface, 400-m oval track, ranging from 100 m to 10,000 m. Field events include the javelin, shot put, and discus. Track and field is governed by Wheelchair Track & Field, USA, and is a Paralympic sport (Figures 25-15 and 25-16).

## Trap and Skeet Shooting

Trap and skeet shooting are two sports that allow wheelchair users to compete alongside nondisabled shooters under the same rules. Tournaments are held throughout the United States, including the PVA National Trapshoot Circuit (Figure 25-17).



**Figure 25-15.** Javelin, track and field, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska. Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-16.** Shot put, track and field, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska. Photograph: Courtesy of National Veterans Wheelchair Games.





**Figure 25-17.** Trapshooting, 27th National Veterans Wheelchair Games, 2007, Wisconsin.  
Photograph: Courtesy of National Veterans Wheelchair Games.



**Figure 25-18.** Weightlifting, 28th National Veterans Wheelchair Games, 2008, Omaha, Nebraska.  
Photograph: Courtesy of National Veterans Wheelchair Games.

### Waterskiing

People with disabilities who have the desire to learn to water ski can do so using a modified ski or technique.

### Weightlifting

Athletes competing in the conventional bench press are placed in divisions based on body weight. Weightlifting is governed by US Wheelchair Weightlifting Association, and powerlifting is a Paralympic sport (Figure 25-18).

## SUMMARY

Originating in the wheelchair games developed by World War II veterans, a wide variety of sports and recreational opportunities are available today to veterans and others with disabilities. Both recreational and competitive activities have documented therapeutic benefits for participants. Athletes participate in competitive sports according to classification

systems based on the extent of their disabilities. Ongoing development of assistive technology increases the capabilities of amputees to engage in recreational as well as practical activities. An extensive list of organizations dedicated to promoting access to these activities for all Americans follows in the attachment to this chapter

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## ATTACHMENT: ORGANIZATIONS PROMOTING SPORTS AND RECREATION FOR PERSONS WITH DISABILITIES

In addition to the activities described in this chapter, a number of organizations provide sports and recreation programming for individuals with disabilities. The information provided is a general introduction to organizations that offer sports and recreation programs for amputees in the United States.

### **Access to Sailing**

6475 E Pacific Coast Highway  
Long Beach, CA 90803  
(562) 433-0561  
[www.accesstosailing.org](http://www.accesstosailing.org)

Access to Sailing provides therapeutic rehabilitation to disabled and disadvantaged children and adults through interactive sailing outings.

### **AccessSportAmerica**

Acton, MA  
(978) 264-0985  
[www.accesssportamerica.org](http://www.accesssportamerica.org)

AccessSportAmerica, a national nonprofit organization, is dedicated to the discovery and achievement of higher function and fitness for children and adults of all disabilities through high-challenge sports.

### **Achilles Track Club**

New York, NY  
(212) 354-0300

Achilles is a worldwide organization, represented in 60 countries. Its mission is to enable people with all types of disabilities to participate in mainstream athletics, to promote personal achievement, enhance self-esteem, and lower barriers between people.

### **Adapted Adventures**

Evergreen, CO  
(877) 679-2770  
[www.adaptiveadventures.org](http://www.adaptiveadventures.org)

Founded by a group of physically challenged individuals in 1999, Adaptive Adventures saw a need to increase awareness and participation in disabled sports and recreation for people of all ages. The organization improves the quality of life of individuals with disabilities through year-round adaptive sports and recreation programs.

### **Adapted Sports Association**

Durango, CO  
(970) 259-0374  
[www.asadurango.org](http://www.asadurango.org)

The Adaptive Sports Association (ASA) was founded in 1983 by Dave Spencer, a ski instructor who lost a leg to cancer as a young man. Spencer believed that skiing could challenge and increase the self-esteem of all individuals with disabilities. ASA helps to enrich and transform the lives of people with disabilities through sports. Through sports and recreation, participants meet positive role models, increase socialization skills, improve body image, and combat depression. Through the use of state-of-the-art equipment, ASA is able to offer its services to individuals with every type of disability. Over 50 ASA ski and snowboard instructors are nationally certified through Professional Ski Instructors of America and the American Association of Snowboard Instructors. ASA is also a member of DSUSA. Quality instruction and safety are primary concerns of ASA.

### **Adapted Sports Center**

Crested Butte, CO  
(866) 349-2296  
[www.adaptivesports.org](http://www.adaptivesports.org)



The Adaptive Sports Center is a nonprofit organization that provides year-round recreation activities for people with disabilities and their families.

**Adaptive Aquatics**

Wilsonville, AL  
(205) 807-7519  
[www.adaptiveaquatics.org](http://www.adaptiveaquatics.org)

Each year from April to October, Adaptive Aquatics provides nationwide water skiing instruction through comprehensive clinics and workshops. With the use of specialized equipment and expert instruction, Adaptive Aquatics opens avenues to greater independence and allows people with disabilities to experience the excitement of water sports.

**Adventure Pursuit**

Parkersburg, WV  
(304) 485-0911  
[www.adventurepursuit.org](http://www.adventurepursuit.org)

Adventure Pursuit is a nonprofit corporation that offers adventures in boating, biking, and swimming.

**All Out Adventures**

Easthampton, MA  
(413) 527-8980  
[www.alloutadventures.org](http://www.alloutadventures.org)

All Out Adventure's mission is to provide individuals of all abilities unlimited opportunities to build confidence, foster independence, and promote wellness while exploring new environments. It offers summer and winter recreation programs throughout the New England area.

**America's Athletes With Disabilities**

Silver Spring, MD  
(301) 589-9042  
[www.americasathletes.org](http://www.americasathletes.org)

Founded in 1985, America's Athletes With Disabilities is a consortium of both single and multiple disability groups, organizations, individuals, and corporate sponsors who passionately advocate both single and multiple sport activities and programs to better serve persons with physical disabilities. The organization improves the quality of life for children, young people, and adults with physical disabilities and their families through sports, recreation, leisure, and fitness programs.

**American Canoe Association**

7432 Alban Station Boulevard, Suite B-232  
Springfield, VA 22150  
(703) 451-0141  
[www.acanet.org](http://www.acanet.org)

Established in 1980, the American Canoe Association has a strong commitment to making all aspects of canoe sports—canoeing, river kayaking, and sea kayaking—accessible. The organization serves as a clearinghouse for information on paddling, as well as with paddlers on a one-to-one basis to recommend specific adaptations, instruction sites, and trip opportunities.

**American Dancewheels Foundation, Inc**

Bala-Cynwyd, PA  
(215) 588-6671  
[www.americandancewheels.org](http://www.americandancewheels.org)

The foundation provides wheelchair dancing instruction to the disabled community.

**American Wheelchair Bowling Association**

PO Box 69  
Clover, VA 24534  
(434) 454-2269  
[www.awba.org](http://www.awba.org)

The American Wheelchair Bowling Association was formed in 1962 to organize and coordinate wheelchair bowling and provide national competition. Local and sectional tournaments are held across the country. Members receive a newsletter, rulebook, and a how-to guidebook on wheelchair bowling.

**American Wheelchair Table Tennis Association**

23 Parker Street  
Port Chester, NY 10573  
(914) 937-3932

American Wheelchair Table Tennis Association, a member organization of WSUSA, sanctions and conducts wheelchair table tennis tournaments throughout the United States. Membership entitles the individual to a quarterly newsletter, rulebook, and liability insurance, plus other benefits. The association organizes the American wheelchair table tennis team each year and also maintains a national athlete ranking system.

**BlazeSports America**

Atlanta, GA  
(770) 850-8199  
[www.blazesports.com](http://www.blazesports.com)

BlazeSports America is a direct legacy of the 1996 Paralympic Games held in Atlanta, Georgia, the first Paralympic Games held in the United States. In 1993 the Atlanta Paralympic Organizing Committee established the US Disabled Athlete's Fund (USDAF) to develop a national program making community-based adaptive sports a reality for children and adults with physical disabilities. Following the 1996 Paralympic Games, USDAF, in partnership with the Georgia Recreation and Parks Association, introduced BlazeSports Georgia in 1997. BlazeSports America provides sports training, competitions, summer camps, and other sports and recreational opportunities for youth and adults who use wheelchairs or have a visual impairment, amputation, or neurological disability such as cerebral palsy or spina bifida.

**Breckenridge Outdoor Education Center**

PO Box 697  
Breckenridge, CO 80424  
(970) 453-6422  
[www.boec.org](http://www.boec.org)

Breckenridge Outdoor Education Center offers year-round wilderness adventure programs throughout the Rocky Mountains. Activities include backpacking, rock climbing, rafting, downhill and cross-country skiing, winter camping, and mountaineering.

**Challenge Aspen**

Aspen, CO  
(970) 923-0578  
[www.challengeaspen.com](http://www.challengeaspen.com)

Established in 1995, Challenge Aspen provides access for all to a wide variety of seasonal sports and recreational and cultural activities for adults and children. Thanks to Challenge Aspen and a dedicated volunteer staff and board of directors, those with physical and mental challenges have access to recreational sports such as downhill and cross-country skiing, whitewater rafting, horseback riding, swimming, gymnastics, hiking, and fishing. Seasonal camps include a mono-ski camp and a rock climbing camp for paraplegics and amputees and a ski festival for the visually impaired. Based in Snowmass Village, with access to the area's four ski mountains, Challenge Aspen currently serves more than 400 participants each year, with over 2,100 participant days.

**Challenged Athletes Foundation**

San Diego, CA  
(858) 866-0959  
[www.challengedathletes.org](http://www.challengedathletes.org)

It is the mission of the Challenged Athletes Foundation to provide opportunities and support to people with physical disabilities so they can pursue active lifestyles through physical fitness and competitive athletics. The Foundation believes that involvement in sports at any level increases self-esteem, encourages independence, and enhances quality of life.

**Colorado Discover Ability Integrated**

Outdoor Adventure  
Fruita, CO  
(970) 858-0200  
[www.coloradodiscoverability.com](http://www.coloradodiscoverability.com)

Colorado Discover Ability is a nonprofit organization whose mission is to promote increased independence and self-worth through outdoor recreation for individuals with disabilities, as well as their families and friends. Its programs have been serving the disabled in the Grand Valley area of Colorado for over 20 years.

**Cooperative Wilderness Handicapped Outdoor Group**

Idaho State University  
Box 8128  
Pocatello, ID 83209  
(208) 282-3912

Cooperative Wilderness Handicapped Outdoor Group offers a year-round calendar of whitewater rafting, camping, all-terrain vehicle trips, waterskiing, and Alpine skiing in rugged Idaho terrain. Activities span a half-day to a week.

**Courage Center**

Minneapolis, MN  
(763) 520-0262  
[www.courage.org](http://www.courage.org)

Since 1928, Minneapolis-based Courage Center, a nonprofit rehabilitation and resource center, has improved the lives of people experiencing barriers to health and independence. Its continuum of care includes rehabilitation therapies; transitional rehabilitation; pain management; vocational and community-based services; and camping, sports, and recreation programs, including fitness centers and aquatic therapy, for people of all ages and abilities. Courage Center specializes in pain management, brain injury, spinal cord injury, and congenital disabilities.

**Department of Veterans Affairs**

810 Vermont Ave, NW  
Washington, DC 20420  
[www.va.gov](http://www.va.gov)

The VA is the second largest cabinet department in the US government. The VA strives to meet the needs of America's veterans and their families in a responsive, timely, and compassionate manner in recognition of their service to the nation. With 220,000 employees, more than 160 hospitals, hundreds of outpatient clinics, and 58 regional offices, the department responds to the healthcare and benefits needs of the nation's 25 million veterans.

Wheelchair sports originated after World War II when disabled veterans began playing wheelchair basketball in VA hospitals throughout the United States. Wheelchair recreation and competition soon spread to other sports, such as track and field, bowling, swimming, and archery. The National Veterans Wheelchair Games, along with the VA's three other national rehabilitation special events (the National Disabled Veterans Winter Sports Clinic, the National Veterans Golden Age Games, and the National Veterans Creative Arts Festival) are outgrowths of VA's historical involvement in wheelchair sports. Since they were founded, these events have been on the cutting edge of innovative rehabilitative programs.



### **Disabled Archery, USA**

PO Box 698  
Langley, WA 98260  
(360) 321-5979  
[www.da-usa.org](http://www.da-usa.org)

Disabled Archery USA's mission is to discover, develop, and support disabled men and women in the United States in their pursuit of world-class archery. As a part of this mission, and in coordination with USA Archery, Disabled Archery USA names athletes to the US national disabled archery team each year. Members from this national pool of athletes are then eligible for selection to various national archery teams that compete in events such as the International Paralympic Committee World Championships and the Paralympic Games. The selection process for these teams is a coordinated effort among Disabled Archery USA, USA Archery, and US Paralympics.

### **Disabled Sports, USA**

451 Hungerford Drive, Suite 100  
Rockville, MD 20850  
(301) 217-0960  
[www.dsusa.org](http://www.dsusa.org)

A national, nonprofit, 501(c)(3) organization established in 1967 by disabled Vietnam veterans to serve the war injured, DSUSA now offers nationwide sports rehabilitation programs to anyone with a permanent disability. Sports and recreational activities include snow and water skiing, aerobics, canoeing, river rafting, biking, and horseback riding. Participants include those with visual impairments, amputations, spinal cord injury, dwarfism, multiple sclerosis, head injury, cerebral palsy, and other neuromuscular and orthopedic conditions.

In most cases, instruction and use of equipment are offered free of charge or at minimal cost. DSUSA organizes regional and national ski competitions from which the US disabled ski team is selected. DSUSA also organizes regional and national competitions for amputees, as well as fitness clinics for people with a wide range of disabilities. DSUSA members receive a newsletter three times each year and a reduction in program fees.

Like WSUSA, DSUSA is a member of the US Olympic Committee and therefore responsible for the sanctioning and conduct of competitions and training camps to prepare and select athletes to represent the United States at Summer and Winter Paralympic Games. Both groups function as umbrella organizations for their national governing bodies. DSUSA oversees Alpine and Nordic skiing, track and field, volleyball, swimming, cycling, and powerlifting.

In partnership with the Wounded Warrior Project, DSUSA conducts the Wounded Warrior Disabled Sports Project, which aims to work with wounded service members as soon as they enter occupational and physical therapy. With the proper adaptive equipment and trained instructors, patients can successfully learn the basics of almost any sport in just 1 day. This immediate success provides a foundation for the development of a positive self-image and outlook on life, key factors leading to an independent, full, and productive life. Even those suffering from the most severe injuries (eg, triple amputee, blindness, paralysis) are able to compete in the most extreme of sports. Rock climbing, kayaking, snow skiing, snowboarding, water skiing, golf, basketball, track and field, cycling, sailing, outrigger canoeing, scuba, wheelchair basketball, sled hockey, hunting and fishing are just a small sample of the different types of sports that the project offers. The project provides wounded service members and their families and friends these opportunities free of charge, including transportation, lodging, adaptive equipment, and individualized instructions. Family members are taught the sport as well. Programs take place at sites throughout the United States.

### **Eastern Amputee Golf Association**

Bethlehem, PA  
(888) 868-0992  
[www.eaga.org](http://www.eaga.org)

The Eastern Amputee Golf Association was formed by Bob Buck, retired National Amputee Golf Association's eastern trustee, and others. The organization was formed with the same guidelines as the National Amputee Golf Association but has its own officers, constitution, bylaws, and membership dues. Its prime purpose is to organize and conduct amputee golfing events and "learn to golf" clinics for any physically challenged individual, provide communication between its members, and act as a bridge between its members and the National Association.

**Electric Wheelchair Hockey Association**

Minneapolis, MN  
(763) 535-4736  
[www.powerhockey.com](http://www.powerhockey.com)

Electric Wheelchair Hockey's mission is to provide a quality hockey program for persons requiring the use of a power wheelchair in daily life. Power Hockey is based on basic hockey rules with a few adaptations to allow everyone in a power wheelchair the ability to participate.

**Fishing Has No Boundaries**

Hayward, WI  
(800) 243-3462  
[www.fhnbinc.org](http://www.fhnbinc.org)

Fishing Has No Boundaries provides recreational fishing opportunities for all anglers with disabilities regardless of age, race, gender, or disability. A resource for information on adaptive fishing equipment and accessibility, the organization promotes research and development of specialized adaptive equipment to enhance fishing experiences for anglers with disabilities.

**Freedom's Wings International**

P.O. Box 7076  
East Brunswick, NJ 08816  
(800) 382-1197  
[www.freedomswings.org](http://www.freedomswings.org)

Freedom's Wings International is a nonprofit organization run by and for people with physical disabilities that provides the opportunity for those who are physically challenged to fly in specially adapted sailplanes, either as a passenger or as a member of the flight training program. For an annual membership fee, Freedom's Wings International provides flight training with certified instructors, hand-control-equipped aircraft, and support equipment for those who wish to become sailplane pilots.

**Handicapped Scuba Association**

1104 El Prado  
San Clemente, CA 92672  
(949) 498-4540  
[www.hsascuba.com](http://www.hsascuba.com)

Since 1974 the nonprofit Handicapped Scuba Association has held diving classes pairing nondisabled with disabled divers. It also operates as a dive club, offering refresher courses and coordinating excursions. The organization can provide lectures and video presentations to any group. A videotape on scuba diving for people with disabilities is available. Dedicated to improving the physical and social well-being of people with disabilities through the exhilarating sport of scuba diving, the organization has become the worldwide authority in the field.

**International Wheelchair Aviators**

PO Box 2799  
Big Bear Lake, CA 92314  
(909) 585-9663  
[www.wheelchairaviators.org](http://www.wheelchairaviators.org)

Members of International Wheelchair Aviators, open to anyone interested in learning to fly, receive a monthly newsletter plus a roster of the group and are encouraged to participate in monthly fly-ins.

**John's Golf Course**

Eureka, MT  
(406) 889-3685  
[www.johnsgolfcourse.com](http://www.johnsgolfcourse.com)

John's Golf Course is a nonprofit course for the handicapped with no greens fees.

**Kayak Adventures**

Jacksonville Beach, FL

(904) 249-6200

[www.kayakadventuresllc.com/disable.htm](http://www.kayakadventuresllc.com/disable.htm)

With specialized paddling skills, technical knowledge, and adaptive equipment, Kayak Adventures offers kayaking to people with disabilities.

**National Ability Center**

Park City, UT

(435) 649-3991

Founded in 1985, the National Ability Center is a nonprofit, tax-exempt organization offering activities for the disabled at an affordable rate, with scholarships available, to ensure participation for all applicants. Programs are supported through special events, grants from private corporations and foundations, individual donations, and program fees.

**National Alliance for Accessible Golf**

Reston, VA

(703) 234-4136

[www.accessgolf.org](http://www.accessgolf.org)

Formed in 2001 by leaders of the golf industry and representatives of organizations serving people with disabilities, the National Alliance for Accessible Golf works to increase participation of people with disabilities in the game of golf.

**National Amputee Golf Association**

11 Walnut Hill Road

Amherst, NH 03031

(800) 633-6242

[www.nagagolf.org](http://www.nagagolf.org)

Begun in 1947, the National Amputee Golf Association is open to anyone who has lost a hand or foot at a major joint. It conducts learn-to-golf clinics for any physically disabled individual in the country. Members receive an annual magazine, newsletters, and tournament information.

**National Rifle Association Disabled Shooting Services**

11250 Waples Mill Road

Fairfax, VA 22030

(703) 267-1495

[www.nrahq.org/compete/disabled.asp](http://www.nrahq.org/compete/disabled.asp)

The programs offered by the National Rifle Association's Disabled Shooting Services department have enabled thousands of Americans with physical disabilities to enjoy a variety of shooting activities, including competitive events and hunting. The organization has also worked to ensure that many shooting facilities are wheelchair-accessible.

**National Sports Center for the Disabled**

Winter Park, CO

(970) 726-1548

[www.nscd.org](http://www.nscd.org)

The National Sports Center for the Disabled began in 1970 as a one-time ski lesson for children with amputations for the Children's Hospital of Denver. Today it is one of the largest outdoor therapeutic recreation agencies in the world. Each year, thousands of children and adults with disabilities take to the ski slopes, mountain trails, and golf courses to learn more about sports, and themselves. With specially trained staff and its own adaptive equipment laboratory, the Center teaches a variety of winter and summer sports and activities to individuals with almost any physical, cognitive, emotional, or behavioral diagnosis.

**National Wheelchair Basketball Association**

8245 Charles Crawford Lane  
Charlotte, NC 28262  
(704) 547-0176  
[www.nwba.org](http://www.nwba.org)

Founded in 1948, the National Wheelchair Basketball Association (NWBA) is the nation's oldest and largest disability sport organization. Based in Colorado Springs, Colorado, the NWBA is a nonprofit organization that serves as the national governing body for men's, women's, intercollegiate, and youth wheelchair basketball in the United States. The NWBA's mission is to provide persons with permanent lower limb disabilities the opportunity to play, learn, and compete in wheelchair basketball. Today over 2,000 member athletes compete on more than 185 teams throughout the United States.

In 1978 the NWBA established the Central Intercollegiate Conference—the only collegiate conference for disabled sport—to provide student-athletes with disabilities the opportunity to compete at the collegiate level. Since then, Conference member teams and their players have consistently competed at the sport's highest competitive levels while adhering to National Collegiate Athletic Association academic and eligibility standards. Today, the NWBA continues to be a major force in wheelchair basketball with the development of players and the dedication of a group of highly respected professionals in the areas of coaching and organization.

**National Wheelchair Poolplayers Association**

4370 Majestic Lane  
Fairfax, VA 22033  
(703) 817-1215  
[www.nwpainc.org](http://www.nwpainc.org)

Established in 1994, the National Wheelchair Poolplayers Association is the governing body for all organized wheelchair pool. The association has nearly 400 members worldwide, including players of all ages and disability. All players must use a wheelchair for pool competition and must remain seated at all times while at the table.

**National Wheelchair Shooting Federation**

102 Park Avenue  
Rockledge, PA 19046  
(215) 379-2359

A member of WSUSA, the National Wheelchair Shooting Federation conducts and sanctions air rifle and pistol shooting in the United States. Members receive WSUSA services, the constitution and bylaws, and a bimonthly newsletter. Each year the Federation selects and organizes the US Wheelchair Shooting Team, which competes in international competition.

**National Wheelchair Softball Association**

6000 West Floyd Avenue #110  
Denver, CO 80227  
(303) 936-5587  
[www.wheelchairsoftball.org](http://www.wheelchairsoftball.org)

Founded in 1976, the National Wheelchair Softball Association is the national governing body for wheelchair softball in the United States. Membership is open to competing teams and associate members. Members receive newsletters and other information throughout the year. The National Wheelchair Softball Tournament, held each year in September, is a double elimination tournament of 10 or more teams.

**North American Riding for the Handicapped Association**

PO Box 33150  
Denver, CO 80233  
(800) 369-RIDE  
[www.narha.org](http://www.narha.org)

North American Riding for the Handicapped Association has chapters nationwide, with specially trained teachers and horses available for use by riders with disabilities. Several types of membership are available, and the association provides a bimonthly newsletter, an annual journal, and discounts on related publications.



### **Northeast Passage**

Durham, NH  
(603) 862-0070  
[www.nepassage.org](http://www.nepassage.org)

Northeast Passage, founded in 1990, is a nationally recognized leader in the provision of innovative therapeutic recreation services. The organization delivers disability-related health promotion and adapted sports programs throughout New England. It is a program of the University of New Hampshire's School of Health and Human Services and an affiliate of DSUSA. Based at the University of New Hampshire's Durham campus, Northeast Passage runs six core programs for people with disabilities, their families, and friends.

### **Paralyzed Veterans of America**

801 Eighteenth Street, NW  
Washington, DC 20006  
(800) 424-8200  
[www.pva.org](http://www.pva.org)

The PVA was founded in 1946 with the vision of a better life for paralyzed veterans and others with disabilities. In pursuing this goal, PVA has been instrumental in achieving significant advances in the areas of accessibility, employment, spinal cord injury / dysfunction research, and sports and recreation, so that people with disabilities have opportunities for full participation in society. Since its earliest days, PVA has been a leader in the development of wheelchair sports in the United States. Today PVA sponsors many major national wheelchair sports championship events and supports such organizations as the National Wheelchair Basketball Association, US Quad Rugby Association, National Wheelchair Softball Association, American Wheelchair Bowling Association, and the National Wheelchair Poolplayers Association. PVA also publishes *Sports 'n Spokes*, a full-color magazine that covers exciting events, personalities, training, and equipment in wheelchair sports. PVA and VA annually copresent the National Veterans Wheelchair Games.

PVA's boating and fishing program introduces people to recreational and competitive fishing. Its hallmark event is the PVA Bass Tour, an event sanctioned by the Bass Anglers Sportsman Society (BASS), through which PVA chapters across the country host fishing tournaments for people with disabilities. Anglers may fish from a boat or from shore, paired with able-bodied boat partners or volunteers on shore to provide any necessary assistance with fishing tasks. Each year an angler of the year earns a coveted spot in the BASS Federation National Championship and the opportunity to qualify in the Bassmasters Classic.

The PVA shooting sports program has activities ranging from recreational and competitive shooting to big- and small-game hunts. The cornerstone of the program is the PVA National Trapshoot Circuit, which consists of tournaments throughout the country that give individuals with disabilities a chance to participate in the recreational and competitive sport of trapshooting. Trapshooting is one of the few sports where there are no rule distinctions between competitors using wheelchairs or standing.

In 2004 PVA implemented the Operation Iraqi Freedom/Operation Enduring Freedom Injured Troop Support program to provide outreach to Walter Reed Army Medical Center and financially support the participation of recently injured troops from the conflicts in Iraq and Afghanistan in the National Veterans Wheelchair Games, PVA Bass Tour, PVA National Trapshoot Circuit, Vermejo Park Ranch-PVA Elk Hunt, assorted hunting opportunities, and the Outdoor Channel Offshore Classic Sailfish Tournament. In 2007 PVA partnered with the National Wheelchair Poolplayers Association and the American Wheelchair Bowling Association to implement a billiards tournament series and a bowling tournament series, hosted by PVA chapters.

As part of its outdoor sports development program, PVA provides adaptive sporting equipment to military installations and state wildlife agencies. Such equipment provides a critical bridge of accessibility, enabling those with disabilities to participate in outdoor sports. For example, Huntmasters, wheelchair-accessible compartments that elevate to 20 ft, afford occupants a vantage point for hunting or wildlife viewing. PVA's commitment to wheelchair sports and recreation is recognized by the sporting industry, government agencies, and other organizations dedicated to providing outdoor experiences, sports, and recreational activities for their members.

### **Physically Challenged Bowhunters of America, Inc**

New Alexandria, PA  
(724) 668-7439  
[www.pcba-inc.org](http://www.pcba-inc.org)

Founded in 1993, the nonprofit Physically Challenged Bowhunters of America Inc has opened the outdoor sports of target archery, competitive archery, and bowhunting to tens of thousands of physically challenged people across the United States and Canada.

**US Adaptive Recreation Center**

Big Bear Lake, CA  
(909) 584-0269  
[www.usarc.org](http://www.usarc.org)

The US Adaptive Recreation Center was founded in 1983 (as California Handicapped Skiers) to ensure that access to skiing is available to people with all types of disabilities. The Center believes people are empowered when they undertake and succeed at challenging outdoor recreation. In 1989 the Center established the first full-time on-site adaptive ski school in southern California at Bear Mountain Resort. Adaptive watersports and summer camping programs were added in 1993.

**US Disabled Alpine Ski Team**

PO Box 100  
Park City, UT 84060  
(435) 649-9090  
[www.usskiteam.com](http://www.usskiteam.com)

Begun after World War II, the US Disabled Alpine Ski Team is composed of athletes with disabilities who receive training with the US Ski Team.

**US Fencing Association**

1 Olympic Plaza  
Colorado Springs, CO 80909  
(719) 866-4511  
[www.usfencing.org](http://www.usfencing.org)

Wheelchair fencing in the United States is governed by the WSUSA. US Fencing Association wheelchair fencers are chosen to compete at the Paralympic and international levels.

**US Golf Association**

Colorado Springs, CO  
(719) 471-4810, ext 15  
[www.resourcecenter.usga.org](http://www.resourcecenter.usga.org)

The US Golf Association believes that golf's enjoyment should be accessible to all. The Association's Resource Center for Individuals with Disabilities, created to make golf more accessible for the growing population of individuals with disabilities, gathers and makes available information vital to potential or current golfers with disabilities and other interested members of the golf and medical communities.

**US Handcycling Federation**

PO Box 3538  
Evergreen, CO 80439  
(303) 459-4159  
[www.ushf.org](http://www.ushf.org)

The US Handcycling Federation, governed by WSUSA, was formed in 1998 by wheelchair athletes, coaches, and supporters to promote integration of athletes with and without disabilities in the sport of cycling. The Federation is an association of individuals and organizations who share a common goal of health, fitness, and well-being for cyclists of all ages, abilities, and backgrounds. Handcycling is a form of adaptive cycling that enables athletes of all abilities to ride a "bike" exclusively using the upper body. Handcycling is also one of the newest competitions at the Paralympic Games, where it made its first appearance in Athens, Greece, in 2004.

**US Olympic Committee/US Paralympics**

One Olympic Plaza  
Colorado Springs, CO 80909  
(719) 632-5551  
[www.usoc.org](http://www.usoc.org)

The US Olympic Committee, composed of 72 member organizations, is the coordinating body for Olympic-related

athletic activity in the United States. The Committee's vision is to assist in finding opportunities for every American to participate in sport, regardless of gender, race, age, geography, or physical ability. US Paralympics is a division of the US Olympic Committee, formed in 2001 to increase support for Paralympic sport.

The Paralympic military program is conducted in coordination with the VA and Department of Defense. Under a current proposal, the US Olympic Committee would coordinate Paralympic sport activities for service members at Walter Reed Army Medical Center, Brooke Army Medical Center, and US Navy Medical Center–San Diego, including daily coaching in multiple sports, on-site coordination of sport activities, and transition assistance to service members being discharged to home installations or civilian life. Existing activities are listed below.

#### ***Military Sport Camps***

Paralympic military sports camps, held twice a year, provide opportunities for injured service members and veterans to demonstrate their abilities through clinics and low-impact competition. There is no cost to the service member.

#### ***World-Class Athlete Programs***

The Army and Air Force world-class athlete programs allow a military athlete full-time training for up to 3 years prior to an Olympic Games. In 2005 both the Air Force and the Army programs became available for Paralympic-eligible athletes on active duty. Paralympic-eligible service members are identified by the Paralympic coaching staff at various qualification events across the country.

#### ***Veterans' Paralympic Performance Program***

The Veterans' Paralympic Performance Program (VP3) is a new venture to cultivate and support Paralympic-eligible military veterans at upcoming Paralympic Games. VP3 is being created primarily to serve veterans under the age of 35 who have been injured in current overseas military actions, but the program will be open to any Paralympic-eligible, athletically qualified veteran with an honorable discharge who meets the other requirements and commitments of the program.

#### **US Quad Rugby Association**

1702 Lincoln Drive  
Voorhees, NJ 08043  
(856) 491-4210  
[www.quadrugby.com](http://www.quadrugby.com)

In 1988, the US Quad Rugby Association was formed to help promote and regulate the sport of quad rugby on both a national and international level. Since its organized inception, the sport has grown from an original four teams to more than forty-five teams in the United States today! In addition to the growth of the sport in the United States, it has grown internationally as well. It is now played in more than 24 nations.

#### **US Sled Hockey Association**

710 N Lake Shore Drive, 3rd Floor  
Chicago, IL 60611  
(312) 908-4292  
[www.sledhockey.org](http://www.sledhockey.org)

The US Sled Hockey Association organizes and sanctions sled hockey competition in the United States.

#### **US Tennis Association**

70 W Red Oak Lane  
White Plains, NY 10604  
(914) 696-7000  
[www.usta.com](http://www.usta.com)

Wheelchair tennis is one of the fastest growing and most challenging of all wheelchair sports. To meet this demand, the US Tennis Association offers programs geared toward the wheelchair player. Rules are the same as stand-up tennis, except the wheelchair player is allowed two bounces of the ball. A wheelchair tennis player must have a medically diagnosed, mobility-related disability, with a substantial or total loss of function in one or more extremities. In wheelchair tennis, the player must master the game and the wheelchair. Learning mobility on the court is exciting and challenging, and helps build strength and cardiovascular ability. Proficient wheelchair users can actively compete against stand-up players. Wheelchair tennis provides persons with disabilities the opportunity to share in activities with their peers and family, whether able-bodied or disabled.

**USA Volleyball**  
Colorado Springs, CO  
(719) 228-6800  
[www.usavolleyball.org](http://www.usavolleyball.org)

USA Volleyball offers sitting and standing volleyball.

**US Wheelchair Swimming, Inc**  
PO Box 5266  
Kendall Park, NJ 08824  
(732) 422-4546  
[www.wsusa.org](http://www.wsusa.org)

This member organization of WSUSA conducts and sanctions swimming competition for individuals with disabilities in the United States. Members receive a quarterly newsletter, rulebook, and other benefits. US Wheelchair Swimming selects and organizes swimmers with disabilities for international and Paralympic competition.

**US Wheelchair Weightlifting Federation**  
PO Box 5266  
Kendall Park, NJ 08824  
(732) 422-4546  
[www.wsusa.org](http://www.wsusa.org)

This member organization of WSUSA conducts and sanctions weightlifting in the United States.

**Universal Wheelchair Football Association**  
UC Raymond Walters College  
Disability Services Office  
9555 Plainfield Road  
Cincinnati, OH 45236-1096  
(513) 792-8625

The Universal Wheelchair Football Association promotes a version of wheelchair football for individuals with all types and levels of disabilities. Association football is played indoors or outdoors with a foam football.

**Veterans on the Lake Resort**  
161 Fernberg Road  
Ely, MN 55731  
(800) 777-7538  
[www.veterans-on-the-lake.com](http://www.veterans-on-the-lake.com)

Veterans on the Lake Resort, a not-for-profit organization, provides a barrier-free setting for outdoor recreation experiences for disabled veterans, veterans, their families, friends, and supporters.

**Water Skiers With Disabilities Association**  
1251 Holy Cow Road  
Polk City, FL 33868  
(800) 533-2972  
[www.usawaterski.org](http://www.usawaterski.org)

The Water Skiers With Disabilities Association was created in 1949 as an official sport division of the American Water Ski Association (now USA Water Ski). Its purpose is to organize, promote, and direct water skiing for individuals with disabilities from learn-to-ski clinics to international competition. The US Olympic Committee and the International Water Ski Federation recognize USA Water Ski as the national governing body for the sport of water skiing in the United States.



**Wheelchair Dancesport USA Association**

Irvington, NY

(212) 245-0004

[www.wheelchairdancesportusa.org](http://www.wheelchairdancesportusa.org)

The mission of the nonprofit Wheelchair Dancesport USA is to promote, initiate, and stimulate the growth and development of wheelchair “dancesport” in the United States. The organization provides wheelchair dance programs and organizes classes, performances, training camps, and seminars for those serving children and adults with disabilities, as well as supporting recreational and competitive wheelchair dancers and able-bodied dancers, while emphasizing the healthful physical, mental, and social benefits of wheelchair ballroom dancing. Wheelchair Dancesport prepares wheelchair athletes and coaches to participate in regional, national, and international competitions.

**Wheelchair Sports, USA**

PO Box 5266

Kendall Park, NJ 08824

(732) 422-4546

[www.wsusa.org](http://www.wsusa.org)

WSUSA and DSUSA are disabled sports organizations that function as umbrella organizations for their respective national governing bodies. Both are members of the US Olympic Committee and therefore responsible for the sanctioning and conduct of competitions and training camps to prepare and select athletes to represent the United States at summer and winter Paralympic Games. WSUSA was established in 1956, and oversees the following national governing bodies: Wheelchair Archery, USA; Wheelchair Track & Field, USA; National Wheelchair Shooting Federation; USA Swimming; American Wheelchair Table Tennis Association; and US Wheelchair Weightlifting Association.

**Wheelchair Track & Field, USA**

2351 Parkwood Road

Snellville, GA 30039

(770) 972-0763

This member organization of WSUSA conducts and sanctions track and field in the United States.

**Wilderness Inquiry**

808 14th Avenue, SE

Minneapolis, MN 55414-1586

(800) 728-0719

Headquartered in Minneapolis, Wilderness Inquiry conducts integrated outdoor adventures throughout North America for people with a wide range of physical abilities.

**Wilderness on Wheels**

Wheat Ridge, CO

(303) 403-1110

[www.wildernessonwheels.org](http://www.wildernessonwheels.org)

The Wilderness on Wheels Foundation was established as a not-for-profit corporation in 1986. Its mission is to improve access for disabled persons to natural outdoor environments by constructing a model wilderness-access facility consisting of an 8-ft boardwalk starting at 9,100 ft and extending to the top of a 12,300-ft mountain. To date, over 116,000 hours have been invested in the project by some 3,500 volunteers. The boardwalk is just over a mile long. Wilderness on Wheels has provided advice and counsel to entities nationwide including the US Forest Service and the National Park Service.

**World Curling Federation/US Curling Federation**

1100 Center Point Drive

Suite 102, Box 866

Stevens Point, WI 54481

(715) 344-1199

The World Curling Federation is the world governing body for curling accreditation. It was formed out of the International Curling Federation during the campaign for Olympic winter sport status for the sport.