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# **Empowered Freedom: Veterans Accessing Nature for Mental Health**

Veterans who have served our country deserve the opportunity to experience the healing power of nature. With Magic Mobility power wheelchairs, veterans can overcome physical barriers and explore the great outdoors, fostering mental and physical well-being.

### **Restorative Benefits of Being in Nature**

The positive benefits of exposure to nature were demonstrated to "increase connectedness to nature, attentional capacity and positive emotions" when participants spent 15 minutes walking through nature (Mayer et al, 2009). Duvall (2014) and his colleagues at the University of Michigan partnered with the Sierra Club to assess if 98 veterans involved in a four-to-seven-day outdoor program enhanced mental health. The results showed significant positive changes in psychological well-being, social functioning, and life outlook. Specific responses included feelings of tranquility and attentional functioning which lasted several weeks after the outdoor event (Duvall, 2014).

#### Time Outdoors Decreases Symptoms of Post Traumatic Stress Disorder (PTSD)

The U.S. Department of Veterans Affairs states that PTSD affects about 30% of Vietnam veterans, 10% of Gulf War veterans, 11% of Afghanistan veterans, and 20% of veterans returning from Iraq (Vella et al, (2013). A study of 74 veterans with a diagnosis of PTSD was conducted where participants spent two days and three nights in a group recreational therapy program incorporating fly fishing. Immediate and six-week follow-up assessments found that participants had increased sleep quality and decreased perceptual stress and PTSD symptoms (Vella et al, 2013).

A study conducted by the University of Utah with 49 military veterans with Post Traumatic Stress Disorder assessed the impact of a two-week program incorporating outdoor recreation time into mental health treatment. The results demonstrated that the more time spent outdoors, the greater the reduction in their PTSD symptoms. (Bettmann et al, 2021)

A study with 18 Operation Iraqi Freedom and Operation Enduring Freedom veterans who participated in a week-long outdoor therapeutic and adaptive sports program in Sun Valley, Idaho found that preand post-test scores indicated significant changes in psychological health, quality of life, and mood states. This study identified the ability of outdoor recreation activities and adaptive sports to reduce negative mental health states associated with PTSD. (Lundberg et al., 2011).

#### **Almost 3 Million Veterans Live in Rural America**

The Government Accountability Office reported that in 2022 about one-third of the 8.3 million veterans enrolled in Veterans Health Administration services lived in a rural area. This is significantly high compared to the fact that about one-fifth of Americans live in a rural area. The Veterans Administration states that rural veterans experience worse health outcomes, including cardiovascular and suicide

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deaths, compared to veterans in urban areas (GAO, 2024). Rural areas often have challenging terrain. Magic Mobility provides increased access to rural America.



# A Barrier to Nature Is Nature Itself - Get There with Magic

A qualitative study completed by the University of British Columbia assessed the perceived facilitators and barriers to outdoor recreation among people who used wheelchairs. One of the recommended solutions to address the environmental barriers was to provide assistive technology to promote participation in environments perceived inaccessible (Menzies et al, 2021). Magic Mobility provides that opportunity.

## **Clinical Reasons for Using Magic Mobility**

Magic Mobility allows the rider to use the same wheelchair cushion and support systems common to everyday wheelchairs. Cushions providing postural support and pressure distribution fit onto the frame. A supportive back with desired lateral support and spinal positioning can be added to the frame. A joystick, as well as adaptive controls such as a head array, switches, or sip-and-puff, can be added to the wheelchair, enhancing independence in areas with various terrain such as sandy beaches, gravel, rocky paths, soft wet soil, and forest trails.



Magic Mobility's Magic 360 is designed for off-road adventures and urban maneuverability. With a compact body 24"-26" wide, the Magic 360 is the first chair that's compact enough to move easily indoors and yet equipped with all the requirements for tackling more adventurous outdoor terrain. Two types of interchangeable wheels and tires mean that the Magic 360 can traverse everything from indoor environments to city streets, and even get off the beaten track. The Magic 360 seating system can be personalized to meet a wide range of sizes and options to suit complex postural requirements, including tilt & recline and seat elevation.



Through sand or snow and up or down curbs, the <u>Magic Mobility</u> <u>Extreme X8</u> is a true all-terrain power wheelchair. Unrivaled 4x4 off-road performance and reliability make it the perfect outdoor wheelchair for adventurers, explorers, and rural workers alike. If the great outdoors is where you want to be, the Magic Mobility Extreme X8 is waiting to take you there.

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With Magic Mobility power wheelchairs, veterans are not just receiving a mobility device. They are gaining the freedom to reclaim their lives, reconnect with nature, and enjoy the benefits of being active outdoors. Empower the veterans in your care to explore the world without limits.

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