Introduction: Why Wilderness Medicine?

Why study Advanced Wilderness Life Support (AWLS)? The AWLS program aims to prepare adventurers for settings in which access to definitive medical care is limited.

Usually, travelers find themselves in the wilderness intentionally. The intrepid seek out unknown corners of the globe for recreation and adventure, and to experience the natural elements. The most beautiful and rugged places on earth are often the most distant from definitive medical care. While making great efforts to escape civilization, travelers simultaneously increase the chances of adverse outcomes, should a medical emergency present itself.

**Definition**

Wilderness: Any place that is uncultivated, uninhabited, or inhabited only by wildlife.

The quiet beauty of the wilderness can quickly turn into a scene of confusion and disaster if travelers are not well prepared.
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Outdoor activities are increasing in popularity throughout the world. The wilderness offers adventurers a beautiful and challenging arena in which to hike, ski, run rivers, scuba dive, climb, bike, and so much more. However, injuries and illnesses are common in wilderness settings. Some pathology is even unique to the outdoors.

The excitement and increasing accessibility of outdoor activities attract large numbers of participants, many of whom have little or no backcountry, let alone wilderness, experience. Some of these persons have pre-existing medical conditions. Many bring more zeal than preparation and fitness to their chosen activity—thereby putting themselves distinctly at risk.

Because activities can take travelers to remote places, the responsibility for managing medical problems largely lies with the participants. A healthcare professional who frequents the backcountry will doubtlessly encounter occasional medical problems and may be depended upon as an authority. However, while a traditional, urban clinical background is often useful, the unique maladies of the wilderness—snake bites, high altitude cerebral edema, frostbite, lightning strike, and many others—are outside the scope of routine clinical medicine. Furthermore, training in certain medical disciplines does not prepare the first responder to manage the most likely medical situations encountered in the wilderness. The skills and knowledge required to become certified in Advanced Wilderness Life Support® will provide medical professionals the knowledge and background to recognize and treat backcountry emergencies with confidence. AWLS® trains health care workers in prevention, diagnosis, treatment, and evacuation of backcountry injuries.

Wilderness emergency techniques are often helpful for emergencies in urban areas. Examples include:

- Submersion incidents in swimming pools
- burns
- falls
- automobile accidents

Even in non-wilderness settings, natural disasters, such as tornados and earthquakes, may create situations in which definitive medical care is just as inaccessible as it would be in the remote backcountry. In such emergencies, wilderness medicine principles, such as fracture immobilization, first aid improvisation and knowledge of water disinfection techniques become invaluable.

Wilderness medicine is a unique field of medicine. It incorporates aspects of:

- search & rescue
- physiology and pathophysiology
- clinical judgment and treatment
- creative improvisation
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- psychology & group dynamics
- preventive medicine & public health

Wilderness medicine teaches about the body’s response to extremes of the environment, such as cold, heat, altitude, and lack of water, and their attendant physical stresses. It also prepares medical professionals to anticipate the effects of these extremes on preexisting medical conditions.

The hospital setting provides caregivers an environment that allows them to focus almost entirely on medical care. This is a luxury that is rarely afforded in the backcountry. The presence of fire, rain, cold, darkness, avalanche, rockfall, wind, treacherous rivers, or wild animals obviously complicates a situation. In such circumstances, heroism must be tempered by sensibility and the knowledge necessary to avoid creating additional victims. Even the most basic diagnostic equipment, such as a blood pressure cuff and stethoscope, may not be available in the wilderness. Diagnostic skills, along with good judgment, must be honed in order to determine the severity of medical, surgical and psychological emergencies. The AWLS® program offers evacuation guidelines for these situations.

On many wilderness trips, equipment and supplies are limited by space and weight. This limitation also applies to first aid kits. AWLS® wilderness medicine training teaches a care provider to utilize whatever supplies or materials are available, as it is impossible to have optimal equipment to manage all possible situations. Non-medical equipment, such as duct tape and tree limbs, must often be used to fashion splints, and for other medical utilitarian purposes. It is important for AWLS® students to become familiar with multi-purposing and improvisation, so that they can learn to equip themselves with medical equipment and medications that have the broadest and most practical applications.

Being outdoors is exhilarating. Wilderness sports and activities are refreshing and exciting. The Advanced Wilderness Life Support® program is committed to reducing injuries and illnesses in the backcountry. In those situations when misfortune does arise, we seek to hasten the appropriate responses and to increase mitigation through practical, skills-based education and hands-on learning. AWLS® is intended to allow each participant to become an effective first (aid) responder, in order to contribute to the health and well-being of all who require medical assistance in the great outdoors.

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