

Wilderness Emergency Care

Steve Donelan

Supporting Courses in:

- Wilderness First Aid
- Wilderness First Responder
- Wilderness EMT upgrade

With special chapters on:

- Wilderness eye protection
by Stephen R. Chun, O.D., F.A.A.O.
- Herbal first aid
by Charles Garcia



**AMERICAN SAFETY
& HEALTH INSTITUTE**

Dedication

*To my students
who are also my teachers.*

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WILDERNESS EMERGENCY CARE

Steve Donelan

Chair, Wilderness First Aid & Emergency Care

ASHI BLS Standing Subcommittee

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*Written with the technical assistance of Stephen M. Hibbs

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Introduction

Wilderness Emergency Care is designed as a textbook to support a program with a family of courses that provide hands-on, practical training. The skill guides give step-by-step instructions for doing each technique, illustrated with clear drawings or photos.

But you can also use the book in several other ways. First, I hope you will find it interesting and enjoyable to read. Second, I hope it will help you to avoid, prevent and prepare for emergencies by guiding you through mental rehearsals of what can happen and what you can do. Third, I hope you will find the book to be a useful reference.

As a teacher, I have seen that people learn and remember best if they know the reasons for what they learn. My experience is supported by many studies of skills learning and retention. So I always explain topics, rather than just describe problems and treatments, and I encourage you to make logical and causal connections.

For example, what damage does an injury do, and how does the body react? How does that reaction produce the signs and symptoms that we find when we assess the patient? Similarly, how do the body and brain react to the stress of heat, cold or altitude? What other wilderness hazards are out there, and what can they do to you? Once you've thought through these questions, you should be able to figure out what is going on in an emergency and what to do about it, even if you can't remember exactly what I or another writer recommended.

Medical terms are usually very descriptive and sometimes humorous, but unfortunately they come from Latin or Greek. So I demystify the terms by breaking them down and showing their literal sense (in parentheses and quotes). I also put ideas in historical and cultural context because that helps us to understand them. It also reminds us that some ideas may turn out to be wrong, as so many of their predecessors were. So the same process of inquiry and analysis that gives us some confidence in current ideas of wilderness emergency care should prevent us from getting too dogmatic.

Most of the chapters in this book started as lesson plans and handouts for my classes and evolved into articles that I published in various journals, such as *Sierra*, *Journal of Emergency Medical Services*, *Rescue*, and *Ski Patrol Magazine*. I revised them again for this book. I put the sources used for each chapter in a bibliography at the end of the book instead of cluttering the text with footnotes. I also provide an annotated list of the books and journals that I found most useful and interesting.

In the chapters on injuries, you will find a concise but very thorough guide to bandaging and splinting, including improvised techniques. You will not find many of these in other first aid or first responder books. Urban rescuers use

standard equipment and their bandages and splints only need to stay on for a short ambulance ride to the hospital. But wilderness rescuers need to be able to improvise with what is available. Their bandages and splints need to stay on while the patient walks, skis, or scrambles out or is evacuated from the backcountry.

Even more important than the physical skills are the mental and social skills of emergency care: Figuring out what the problems are and what is causing them; setting priorities and making a plan; organizing and leading a rescue or working in a team; communicating with the patient and other people on the scene; and coping with the psychological stress of an emergency in yourself and others. I describe these skills in the first chapter and refer to them throughout the book. You can develop the mental and social skills of emergency care by practicing techniques realistically and doing role-playing scenarios.

However you use this book, I hope it will make your wilderness activities safer and more enjoyable. I also hope that it will prepare you to help other people in a wilderness emergency.

Steve Donelan