

[FIVETHINGS]

EVERY SOLDIER SHOULD KNOW ABOUT



DAVID GUTTENFELDER/THE ASSOCIATED PRESS

Soldiers from 1st Battalion, 26th Infantry, patrol in the mountains of the Korengal Valley in Afghanistan's Kunar province May 9. Long-term aerobic activity, such as a patrol, is harder in high altitudes.

High altitudes

Soldiers deploying to Afghanistan's mountainous and high plains regions may quickly notice they don't do as well in lofty altitudes.

The Army Research Institute of Environmental Medicine is investigating ways to help ease the altitude transition for soldiers, who are expected to exert themselves in rugged terrain and carry a heavy load of gear.

The institute, based in Natick, Mass., can simulate altitudes up to 30,000 feet above sea level.

Before you deploy to great heights, get an understanding of the challenging conditions you could face and how to deal with them:

1 How high? High altitude is any location at least 1,200 meters, or 3,900 feet, above sea level, the Army reports. At about 7,000 feet the possibility of altitude illness exists, said Dr. Stephen Muza, a research physiologist in the institute's Thermal and Mountain Medicine Division.

2 The effects. High altitudes do not significantly affect the ability to perform short, intense activities. But for long-term aerobic work, such as a march or patrol, soldiers may slow down and need to rest more often. A soldier may also become nauseated and dizzy.

At the highest altitudes, more

than 12,000 feet above sea level, a soldier begins to lose mental capacity and decision-making skills are impaired.

"In a tactical situation, if things are happening quickly, you may end up making an incorrect decision because of the impairment," Muza said.

3 Adaptation. The best way to adapt to a high altitude is to climb gradually. On the first day, if starting at about 4,000 feet above sea level, do not ascend above 8,000 feet, Muza said. After the first day, climb no more than 1,000 feet per day. Greater heights may be possible if a soldier has had more time to acclimatize.

4 Carb loading. A diet heavy in carbohydrates, Muza said, has been proven to help maintain performance in high altitudes. A soldier's diet at those heights should be at least 60 percent carbs.

Snacking on carbohydrates throughout the day is more effective than eating one big carb meal because snacking keeps blood-sugar levels up and stable, he said.

5 Drug research. The Army has stockpiled the drug Diamox to treat altitude sickness. Muza said the drug is safe, but side effects include a tingling sensation in the fingers, toes, nose and ears, change in the taste buds and the need to urinate more frequently.

Muza said new drugs, yet to be tested on humans, are in development to help with the transition to high altitudes.

— Tony Lombardo