

Strenuous Physical Activity Fact Sheet

Hiking, lifting, and other field work activities can be stressful on your body. The hazard of these activities can depend on the scope of activities, climate, and your own physical condition. Exhaustion can increase the potential for falls and other accidents. Potential injuries include:

Musculoskeletal injury

Hyponatremia (low electrolyte levels)

Heat exhaustion/stroke

Hypothermia

PERSONAL PROTECTIVE EQUIPMENT

- Weather appropriate clothing
- Appropriate Footwear

PREPARATION AND TRAINING

- Consider consulting your primary care physician as to your physical fitness capabilities with the expected level of exertion. Physical stresses like illness, injury, and adjusting to new altitude can affect your stamina and ability to perform certain activities safely.
- Make sure you carry an ample supply of food to eat and water to drink.
- When planning treks in areas without an established trail, try to minimize elevation change and adjust your routes to avoid undue stress. Use saddles, if present, when traveling between two topographic highs.
- Train for levels of expected exertion prior to the trip. If you are carrying a pack, carry it with full weight during the training so you know how it affects your balance.
- Plan trips to minimize long days of strenuous activities.
- It is recommended you take courses in:

Basic First Aid

Wilderness First Aid (depending on remoteness of location)

GENERAL SAFETY

- Do not push yourself beyond your abilities.
- If lifting or carrying heavy equipment is necessary, use two or more people.
- If you feel unable to continue, stop and rest until you are able to continue. Schedule regular breaks for food, water, and rest. Duration and frequency of breaks will depend on level of exertion and field conditions.
- Perspiration and urination can deplete your body of electrolytes. Drink water to replace the lost fluids and periodically eat a salty snack to replace the salt you have lost. In dry climates, you may not notice perspiration.

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- Pay attention to “hotspots”, areas where clothing may rub against skin. This friction can cause blistering. As soon as you notice discomfort, apply a barrier (e.g., moleskin) to prevent further abrasion.
- Watch for members of your team who appear to be struggling.
- In high heat areas, schedule strenuous activities for morning or evening when heat is less intense.
- In cold areas, schedule or stagger work to avoid perspiration. Wet clothes can hasten the onset of hypothermia.

REFERENCES AND ADDITIONAL RESOURCES

Mayo Clinic [Hyponatremia](#)

National Outdoor Leadership School [Fitness Guidelines to Get Expedition-Ready](#)

National Safety Council [Overexertion and Bodily Reaction](#)

Illness, injury and close call events shall be reported by submitting an [SU-17](#).

If you have questions or need support, contact EH&S's Field Safety Program at ehs_field_safety_support@lists.stanford.edu.

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