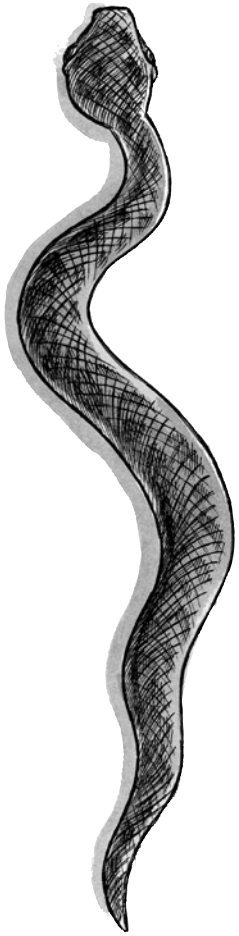
NOVA

Extreme Survival

The best way to defend against the dangers in extreme environments is to be knowledgeable about the challenges the environment presents, to only undertake activities equal to your skill level, and to be as prepared as possible before you ever get there. Here are just a few measures you can take to respond to some of the dangers you may encounter in the extremes.



Try This

If you've got **malaria**, hopefully you took chloroquine prior to your trip to prevent the disease; otherwise get yourself to a doctor for antimalarial drugs. If you have **Acute Mountain Sickness**, your symptoms will quickly disappear if you descend to a lower altitude. If you decided to go on a deep ocean dive, consider wearing a dry suit to keep you dry and warm (and most importantly, to help guard against **hypothermia**). Make sure you don't stay down too long and add decompression stops to your dive so you don't get **the bends**. If you've been unfortunate enough to have been bitten by a **rattlesnake**, keep the bite area lower than the heart and place a constricting bandage between the bite and the heart. Then get to a hospital. If you're in the desert and you get **hyponatremia**, make sure you limit your intake of water and eat salty foods or consume sports drinks to replace the electrolytes you have used up. If you're unfortunate enough to have been stricken with ***mal de mer***, there is no quick cure; your best bet will have been to take something before your trip. For **hyperthermia**, try to stay cool, drink plenty of fluids with electrolytes, and pace yourself. For **hypothermia**, you should wear proper clothing, make sure your clothes don't get wet, drink hot liquids, and eat small meals frequently. If somehow you find yourself with **schistosomiasis**, you can be treated with pills that you take for one to two days.

Glossary

Use this glossary to help you answer your Extreme Questions.

Caisson's disease: Known commonly as decompression sickness or the bends. At the higher pressures that a diver experiences at deep depths, more gas (oxygen and nitrogen) dissolves in the diver's blood. If the diver comes up too quickly, the extra dissolved gases come out of the blood as gas bubbles and can cause pain or even death if the bubbles reach the brain or heart.

dehydration: Occurs when the body experiences excessive loss of water.

High Altitude Pulmonary Edema: This illness occurs when the lungs fill up with fluid as a result of the body adapting to high elevation.

hyperthermia: A condition in which normal body core temperature (37° C) rises to about 41° C or more and the body is unable to cool the core temperature down. Severe hyperthermia can cause damage to the body's vital organs.

hyponatremia: A deficiency of sodium in the blood; left untreated, this condition can lead to seizures and possibly death.

hypothermia: A condition in which normal body core temperature (37° C) drops below about 35° C or more. At lower temperatures, the body stops blood flow to the body's arms and legs in order to conserve body heat for the body's vital organs.

hypoxia: A state of oxygen deficiency that is sufficient to cause an impairment of function in the human body.

mal de mer: French for seasickness, or motion sickness, which happens when your brain receives conflicting signals from your inner ear and eyes. The result: nausea and sometimes confusion.

nitrogen narcosis: A feeling of intoxication that occurs when breathing nitrogen under pressure, such as on a deep ocean dive.

schistosomiasis: A disease caused by parasitic worms that affects 200 million people worldwide. The parasite travels into humans from the snail it breeds in; the worm grows inside the blood vessels of the body and produces eggs that create offspring that are then passed out of the body with waste products.