

Cold Injury

Risk:

Desert regions and inland terrain drop below freezing in the colder winter months of June-August. Average low temperatures are 20-50°F but frequent mountain wind causes extremely low wind chill temperatures.

» Frostbite, hypothermia, dehydration, snow blindness, trench foot and carbon monoxide poisoning can occur in cold weather.

Prevention:

» Maintain proper nutrition, drink plenty of fluids, and dress in multiple, loose layers.

Elevation

Risk:

The country of South Africa has the highest elevation in the region with a

vast interior plateau rimmed with cliffs and mountains peaking at elevations of 11,000 feet (3,350 meters). Mild altitude illness can manifest between 4,000-7,870 feet (1,200-2,400 meters). Operations occurring at elevations over 7,870 feet can seriously impact unit and individual effectiveness.

» Headaches, nausea and vomiting, fatigue, dizziness, impaired mental status, edema, and apnea.

Prevention:

» Stage ascents over time and plan frequent rests during work and exercise.
» Serious illness or death can result if you ascend rapidly without allowing for acclimatization. Remain well hydrated; individual water requirements are greater at higher altitudes.

Earthquakes

Risk:

Earthquakes are not common in Southern Africa but recent seismic activity produced eight in 2007. The tremors affected various rural locations throughout South Africa and measured up to a magnitude of 5.0 on the Richter scale.

Air Pollution

Risk:

Air pollution is localized to industrial areas. Most pollution comes from energy production, primarily coal power plants. The Cape Town and Durban industrial areas may occasionally reach levels causing acute respiratory symptoms, especially in sensitive individuals. During the spring and summer months the Cape Peninsula receives strong gale force winds from a southeaster named the “Cape Doctor” because it blows away air pollution and cleans the air.



<http://chppm.amedd.army.mil>
1-800-222-9698

Deployment Health Card: South Africa, Lesotho, Swaziland, Namibia, Botswana, Zimbabwe, and Mozambique

Southern Africa

Use force health protection measures to avoid seriously jeopardizing your mission



Diseases from Food and Water Consumption

Risk:

Food, water, and ice may be contaminated with bacteria, parasites, viruses, raw sewage, toxins or pesticides that can cause illness.

- » Diarrhea, hepatitis A, typhoid/paratyphoid fever.

Prevention:

- » Consume only food, water, and ice approved by the U.S. military.
- » Get prescribed vaccines for hepatitis A and typhoid.

Diseases from Arthropods

Risk:

Climates in Southern Africa vary from tropical to sub-tropical and support disease carrying arthropods such as mosquitoes, ticks, and sand flies.

- » Malaria is a year-round threat in Southern Africa.

- » Rift Valley fever, Crimean-Congo hemorrhagic fever, chikungunya, rickettsioses, and sindbis are seasonal vector-borne diseases.

Prevention:

- Take prescribed anti-malaria medicine.
- Keep living areas clean.
- Use insect repellents containing DEET on exposed skin. Use permethrin-treated uniforms and bed nets but do not use permethrin on flame resistant uniforms (FRACU's).
- Wear your uniform properly.

Diseases from Water Contact

Risk:

Bodies of water are likely to be contaminated with fecal matter from humans, livestock, and other animals acting as reservoirs for bacteria and parasitic organisms. Wading or swimming may result in exposure to harmful diseases.

- » Schistosomiasis is a parasitic disease found in fresh water contaminated with fecal matter. The risk of schistosomiasis is higher in the warmer months from October-April.

- » Leptospirosis is caused by a spirochete shed in animal urine. Humans become infected when contaminated water or mud contacts abraded skin or mucous membranes.

Prevention:

- » Avoid swimming or wading in fresh water and only consume drinking water approved by the U.S. military.
- » Wash skin and clothing after immersion in streams and ponds.

Diseases from Animal Contact

Risk:

- » Rabies, Q-fever, and anthrax all pose risks. The rabies virus is transmitted from the bite of infected dogs, cats, bats, and other mammals. Any animal

bite should be evaluated by medical personnel for risk of rabies. Q-fever and anthrax are both caused by bacterial infections. Q-fever results from breathing contaminated air particles from cattle, sheep or goats where as most anthrax infections result from skin contact with spores found in animal fur, hide, or wool.

- » Southern Africa is home to many poisonous snakes including multiple species of adder, mamba, and cobra. The native Thick-Tailed Scorpions are also highly venomous.

Prevention:

- » Snakes, scorpions, and unfamiliar animals are potentially dangerous and should be left alone.
- » Avoid all contact with livestock and other barnyard animals. If contact is unavoidable, clean your hands afterwards.
- » Avoid unpasteurized milk.

Sexually Transmitted Disease

Risk:

Sub-Saharan Africa has the most widespread HIV/AIDS epidemic in the world. Gonorrhea, chlamydia, and other infections are extremely common.

- » The immediate impact of these diseases on an operation is limited, but the long-term health impact on individuals is substantial.
- » Other common diseases include chancroid, herpes, lymphogranuloma venereum, syphilis, and venereal warts.

Prevention:

- » Abstinence, latex condoms, not sharing needles; hepatitis B vaccine.

Heat Stress

Risk:

The Kalahari is a large sandy desert basin covering areas of Botswana, South Africa, and Namibia. At 360,000 square miles, roughly the size of Germany, the Kalahari landscape receives an average of 3-7 inches of precipitation a year. The summer

months from October-March experience temperatures ranging from 95-113 ° F.

- » Sunburn, heat cramps, heat exhaustion, and heat stroke.

Prevention:

- » Countermeasures for heat injuries include acclimatization, physical fitness, maintaining good nutrition, sunscreen, fluid replacement. Follow the Work/Rest Guide (See figure 1).

Figure 1: Fluid Replacement and Work/Rest Guide

Heat Cat	WBGT Index, °F	Easy Work		Moderate Work		Hard Work	
		Work/Rest (min)	Water Intake (QU/H)	Work/Rest (min)	Water Intake (QU/H)	Work/Rest (min)	Water Intake (QU/H)
1	78° - 81.9°	NL	¼	NL	¼	40/20	¼
2	82° - 84.9°	NL	¼	50/10	¼	30/30	1
3	85° - 87.9°	NL	¼	40/20	¼	30/30	1
4	88° - 89.9°	NL	¼	30/30	¼	20/40	1
5	> 90	50/10 min	1	20/40	1	10/50	1

- » Easy Work = Walking on hard surface 2.5 mph <30 lb. load, Weapon maintenance, Marksmanship training
- » Moderate Work = Patrolling, Walking in sand 2.5 mph no load, Calisthenics
- » Hard Work = Walking in sand 2.5 mph with load, Field assaults