

BASIC DESCRIPTION

Heat related illness can range from less severe symptoms such as rash and cramping to more serious conditions such as heat exhaustion and heat stroke.

MILD HEAT RELATED ILLNESSES

PRICKLY HEAT

Clinically referred to as *Miliaria Rubra* and commonly called “Heat Rash”. Prickly Heat is caused by inflammation of sweat ducts that have become blocked by skin cells causing an itchy, red, bumpy rash, especially under clothed areas of the body. Wear clean, loose-fitting clothes to help prevent Prickly Heat. Treatment may include antihistamine medications to relieve itchiness. Use of powders may or may not be of benefit in relieving symptoms. Complications related to Prickly Heat include chronic recurrence and risk of developing a secondary staph infection.

HEAT CRAMPS

Muscle cramps and/or spasms that occur during or after working in a hot environment. They are caused by loss of electrolytes through sweat that are not replaced adequately with water alone. Cramps usually occur in the calf, thigh, and shoulder areas. Treatment usually includes rest, fluids and salt intake. Salt tablets are not recommended as they are highly corrosive to the stomach lining.

HEAT EDEMA

Heat Edema is identified by self-limited, mild swelling of the hands and feet. Heat Edema typically occurs within the first few days of exposure to a hot environment. To reduce swelling and discomfort, elevate the legs as often as possible. Support hose may also be helpful if swelling persists. Diuretics are not recommended as they are ineffective and predispose to more serious heat illnesses.

SERIOUS HEAT RELATED ILLNESSES

HEAT EXHAUSTION

Heat exhaustion is caused by insufficient fluid intake, insufficient salt intake, and a problem with the body's production of sweat. Sweat is what helps to cool the body.

- Dizziness, weakness, fatigue, faintness and headache.
- Skin that is pale and clammy.
- Rapid and/or weak pulse.
- Breathing that is fast and shallow.
- Muscle cramps.
- Intense thirst.
- Nausea and/or vomiting.

HEATSTROKE

Heat stroke is caused by overexposure to extreme heat and a breakdown in the body's temperature regulatory system. The body becomes overheated to a dangerous degree (body temperature can reach 107°F).

- Often preceded by heat exhaustion and its symptoms.
- Skin that is hot, dry and flushed.
- No sweating.
- High body temperature.
- Rapid heartbeat.
- Confusion.
- Loss of consciousness.

RISK INCREASES WITH

- Patients who are very young, elderly or obese.
- Excess alcohol use or drug abuse.
- Some medications including antihistamines, some blood pressure medications and some psychiatric medicines.
- Poor health or chronic illness, such as diabetes, high blood pressure, or heart disease.

- Exercise or work in a hot, humid location. This can be indoors or outdoors.
- Loss of body fluids, from sweating and failure to drink enough fluids.
- Heavy, tight clothing.
- High fever.

PREVENTIVE MEASURES

- Wear light, loose-fitting clothing in hot weather.
- Drink water often; don't wait until you are thirsty.
- Drink extra water if you sweat a lot. If urine output decreases, increase your water intake.
- If you become overheated, open a window or use a fan or air conditioner. This helps sweat dry up, which cools the skin.
- Take precautions when going outside in hot weather.

EXPECTED OUTCOMES

Fast treatment usually brings full recovery in 1 to 2 days. Avoid sun and heat exposure for 48 hours following the incident.

POSSIBLE COMPLICATIONS

- Can involve any major organ system (heart, lungs, kidneys, brain).
- Related to duration and amount of heat and the speed of treatment.

DIAGNOSIS & TREATMENT

- If someone with symptoms is very hot and not sweating: Cool the person rapidly. Remove their clothing, use a cold-water bath, or wrap in wet sheets. Get them to the nearest hospital. This is an emergency!
- If someone is faint but sweating: Lie the person down in a cool place, give them cool liquids (water, soft drinks or fruit juice). Get them to the hospital, except in mild cases. Get medical advice for proper care.
- Your health care provider will do a physical exam and ask questions about the symptoms and activities. Usually no medical tests are needed for diagnosis.
- Medical treatment will depend on how severe the symptoms are. Fluids may be given through a vein (IV).

ACTIVITY

- Rest with legs elevated while symptoms are present.
- Activity may be resumed after symptoms improve but avoid sun and heat exposure for 48 hours after the incident.

SEEK MEDICAL ATTENTION IF:

You or a family member has symptoms of heatstroke or heat exhaustion, or observe them in someone else.

Call immediately! These conditions may be serious or fatal.