



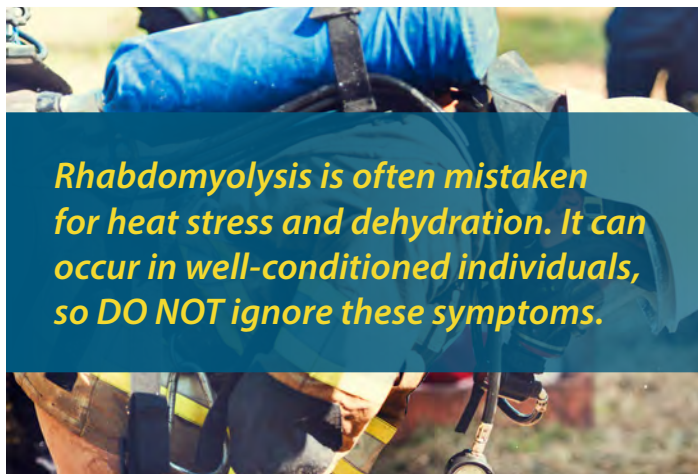
⚠️ Hazard alert

Rhabdomyolysis (Rhabdo)

Rhabdomyolysis (often called rhabdo) is a rare but potentially serious medical condition in which damaged muscle cells rapidly break down and release a protein called myoglobin into the bloodstream. If not recognized and treated early, rhabdomyolysis can result in permanent disability or potentially life-threatening conditions affecting the heart and kidneys. Wildland and structural firefighting activities, including training exercises, increase firefighters' risk of developing rhabdomyolysis due to their frequent exposure to prolonged physical exertion, heat-related illnesses, and crush injuries.

How does rhabdomyolysis occur?

Rhabdomyolysis can occur from physical damage of sufficient severity to muscle cells, and by non-physical damage that interferes with muscle cell metabolism. The damaged muscle fibers may release myoglobin into the bloodstream. When myoglobin reaches the kidneys, it can block passageways within the kidneys and lead to kidney damage and, in some cases, kidney failure. Kidney dysfunction typically develops one to two days after the initial muscle damage.



Rhabdomyolysis is often mistaken for heat stress and dehydration. It can occur in well-conditioned individuals, so DO NOT ignore these symptoms.

What can increase your risk for rhabdomyolysis?

- Crush injuries: An injury that occurs because of pressure from a heavy object onto a body part
- Extreme muscle strain
- Over-the-counter medications such as decongestants and antihistamines
- Certain antibiotics
- Dietary supplements such as creatine
- Some weight-loss products
- Cholesterol-lowering drugs known as statins
- Excessive caffeine intake
- Alcohol or illegal drug use

What are the signs and symptoms of rhabdomyolysis?

- Muscle aches or pains out of proportion for the amount of exercise done
- Muscle weakness and cramping
- Tea-colored or cola-colored urine
- Reduced or no urine output
- Nausea or vomiting
- Rapid heart rate
- Abdominal pain
- Confusion
- Fever



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What to do if you suspect you or some else may have rhabdomyolysis

If you see symptoms or suspect the possibility of rhabdomyolysis, get yourself or the individual to a hospital as soon as possible. If symptoms are severe, call 911. If diagnosed early, a full recovery from rhabdomyolysis can usually be expected. The main goal of treatment is to treat for shock and preserve kidney function.



What can employers do?

- Educate all firefighters about the signs, symptoms, and dangers of heat-related illness and rhabdomyolysis.
- Schedule training courses during cooler months.
- Conduct physically demanding activities during cooler parts of the day.

What can employees do?

- Learn the signs and symptoms of excessive heat strain and rhabdomyolysis.
- Drink plenty of fluids, and take rest breaks as needed.
- Tell your supervisor immediately if you or a co-worker is experiencing symptoms of heat-related illness or rhabdomyolysis.
- Talk to your healthcare provider about your job and your increased risk for rhabdomyolysis.

Hazard alerts provide information on hazardous materials, equipment, or practices. For more information contact the Oregon OSHA Standard and Technical Resources Section at 503-378-3272 or 800-922-2689 (toll-free), or visit our website at osha.oregon.gov.