

## Preventing and Managing Thermal Burns in the Workplace

Thermal burns commonly occur in the workplace when an employee comes into contact with fire, hot liquid, steam or super-heated solid objects.

### Burn Depth

The depth of a thermal burn largely determines the type of care that will be needed. Minor burns typically can be effectively treated onsite with first aid.

Burn depth is related to temperature, duration of contact and skin thickness. Thermal conductivity of skin is low. When a thermal burn involves the first layer of skin (epidermis) it is referred to as a first-degree burn. If it affects the first and second layer (dermis), it is a second-degree burn; a third-degree burn also involves the (hypodermis).

### Care Recommendations

For severe burns:

1. Immediate clinical evaluation is needed. If a burn victim's medical condition is unstable, call 911 or internal emergency medical responders. If the person is medically stable, he or she can be taken to a hospital or clinic for evaluation and care under non-emergency conditions.
2. You can expect the employee to be told to keep the burn site elevated for at least 24 hours. Dressings must be changed, as needed.

For minor burns with erythema (skin redness):

1. Run burned area under cool running water for 10 to 15 minutes or until pain eases.
2. Apply cool compress several times a day for 20 minutes per session.
  - Insert a towel or cloth as a barrier between the skin and ice
3. Apply over-the-counter (non-prescription) burn cream. Follow directions on the label for application. Do not apply butter or ointments; they can cause an infection.
4. Avoid breaking any blisters: Should a blister break, gently wash the area with antibiotic soap and warm water.
5. A dry sterile dressing may be applied to help protect the burn area.
6. For swelling, an over-the-counter nonsteroidal anti-inflammatory medication (e.g., ibuprofen, naproxen) may be taken at a non-prescription dosage with food. Follow directions on the package. Note that taking more medication than directed can increase risk for heart disease.
7. For pain, an over-the-counter pain reliever may be used (e.g., acetaminophen). Follow directions on the package for dosage.

In all cases, watch for signs of infection such as increased pain, redness, swelling fever or oozing. Contact WorkCare for a clinical evaluation for these symptoms or if there are other questions about care and recovery.

