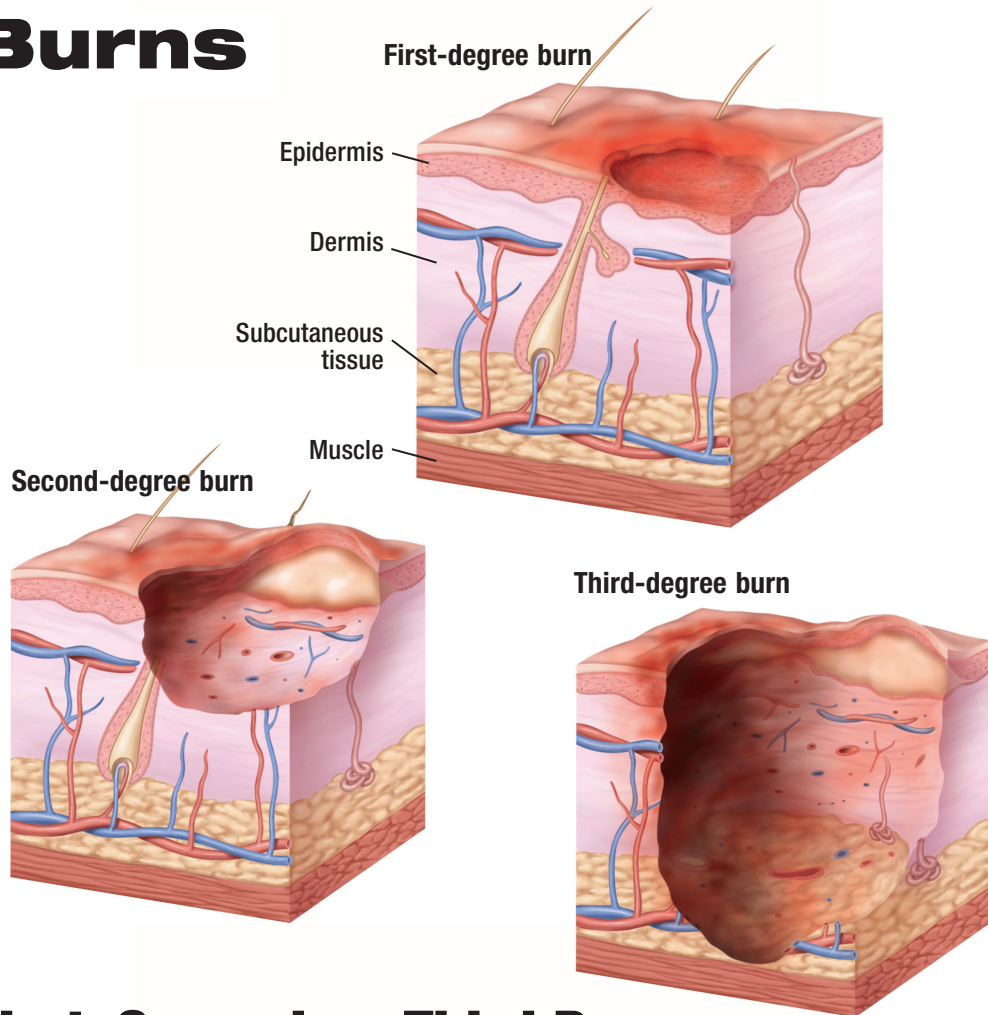


# Burns



## First, Second, or Third Degree

Burns are injuries to the skin and tissues below the skin that are caused by heat from flames, hot liquids, steam, heated objects, chemicals, friction, electricity, radiation, or the sun. They are usually categorized as first-, second-, or third-degree burns, depending upon their severity.

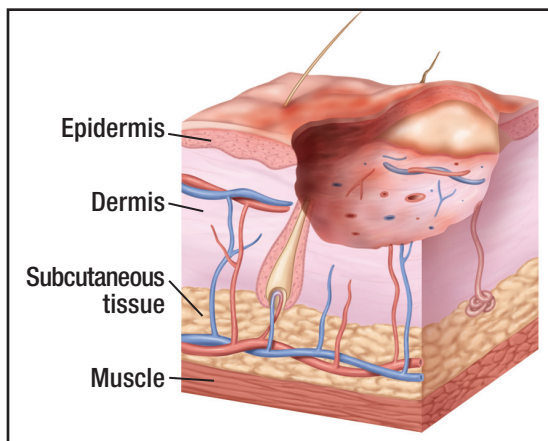
First-degree burns are minor, causing damage to the outer layer of skin (epidermis). The skin appears red and is painful. These burns are usually treatable at home with simple first aid measures. In most cases, a first-degree burn heals completely within a few days.

Second-degree burns are more serious, damaging the epidermis and the layer of skin below it (dermis). The skin appears red and swollen. These burns are painful and often form blisters. If only a small area of skin is affected, a second-degree burn can be treated with first aid measures. Scarring may result from these burns after healing is complete, which may take several weeks.

Third-degree burns are very serious, causing damage to all skin layers as well as the tissue beneath the skin. The skin appears white, tan, or charred black. The burned area is numb due to destruction of the nerve tissue. Third-degree burns must be treated as a medical emergency. With tissue destruction, proper cleansing of the area, administration of IV fluids, antibiotics, and eventually skin grafts or artificial skin may be required. These burns require a much longer time to heal.

Treatment depends upon the type of burn and the damage it has caused to the skin and tissues below the skin. Although first-degree burns and minor second-degree burns can usually be treated at home with proper first aid measures, larger second-degree burns, burns on the face or genitals, and any third-degree burns must be treated by a health care professional.

## Seek Medical Attention Immediately for Electrical or Chemical Burns



*Second-degree burns cause damage to the epidermis and the layer of skin below it (dermis).*

Burns can be caused by a variety of factors. The most common kind of burn is thermal (caused by heat over 140°F), resulting from a flame, hot liquid, steam, or hot metal. Burns can also occur if skin comes in contact with certain chemicals (strong acids or bases), electricity, radiation (such as in cancer treatments), friction that causes heat production, or ultraviolet light from the sun or tanning beds.

### First Aid

Self-treatment is appropriate for first-degree and small second-degree thermal burns (less than 3 inches wide). The affected area should be soaked in cool water for 5 to 10 minutes, or until pain is relieved and does not recur

once the burn is exposed to air. Using ice water or applying ice directly to the burn is not recommended. Butter or similar home remedies should never be used to treat a burn. The area should be covered with an antibiotic ointment or aloe vera gel and then wrapped loosely with a bandage or gauze for protection. Nonprescription pain relievers such as acetaminophen or ibuprofen can help to relieve pain. The burn should be gently washed and covered with ointment and a fresh bandage daily until the area is dry, and any blister that may form should not be disturbed, in order to avoid infection.

Burns should be watched for signs of infection. Any burn that develops increased redness, pain, swelling, or pus should be treated by a health care professional. Burns that are not properly treated can cause prolonged pain, serious infection, and permanent scarring.

### Seeing a Doctor

A first- or second-degree thermal burn should be examined by a health care professional if it is larger than 3 inches across or located on the face or genitals or over a joint. All third-degree thermal burns, regardless of their location or size, as well as electrical burns (such as from a power line), need urgent medical attention. Third-degree burns can quickly result in dehydration and shock, and they are considered a medical emergency. These burns should be covered with a clean cloth or sheet, and the patient should be transported to the hospital as soon as possible. Electrical burns can cause damage to internal organs that is not evident immediately.

Chemical burns require thorough flushing with cool water and the removal of any clothing or jewelry from the affected area. These burns should be treated according to the instructions on the chemical container, or as directed by a poison control center or health care professional.

### Reduce Your Risk

Fires and burns are the third leading cause of death in the home. Burns are often the result of preventable accidents around the home, at work, or in the car. Often, the risk of these accidents can be decreased by increased awareness while cooking at the stove, keeping pot handles turned inward, and using protective mitts when removing hot items from the oven. Children should be protected from hot liquids, chemicals, and matches or lighters. To help lessen the risk of household fires, never leave burning candles or cigarettes unattended, install smoke detectors, and change the detectors' batteries once a year.