

Burns

Definition:

Burns can occur from direct contact with any heat source, electricity, or certain chemicals. These injuries can range from minor superficial burns to very deep ones that damage muscles, tendons, nerves, and even bones.

Burn degrees:

Burns are categorized into four degrees based on their severity.

- **First-degree burns** affect only the outer layer of the skin (epidermis), causing redness, mild swelling, and pain but no blisters.
- **Second-degree burns** involve the epidermis and part of the dermis, leading to more intense pain, swelling, and the appearance of blisters.
- **Third-degree burns** extend through all layers of the skin, destroying both the epidermis and dermis, and can cause white, charred, or leathery skin. These burns may be painless due to nerve damage.
- **Fourth-degree burns** are the most severe, damaging not only the skin but also underlying tissues like muscles, tendons, and bones, potentially leading to permanent damage or amputation, often requiring surgical intervention.

Thermal Burns Treatment:

- Cool the burn with clean running or standing water for at least 10 minutes. If water is unavailable, use a compress.
- Do not apply ice to a burn.
- Apply burn cream if there are no allergies, and do not apply butter, oils, or toothpaste.
- Cover the burn with a clean, dry, nonstick dressing.
- Blisters are a natural cooling system; leave them in place.
- Remove jewelry or tight clothing around the burned area before swelling occurs.
- If the person is on fire, put the fire out (Stop, Drop, and Roll).
- Cover the person with a dry blanket (to avoid hypothermia) and check for signs of shock due to decreased blood flow.

Monitor for signs of shock:

- Pale, cool, and clammy skin
- Rapid, weak pulse
- Rapid, shallow breathing
- Confusion, dizziness, or fainting

Treatment of Shock:

- Lay the person flat on his or her back. Elevate his or her legs about 12 inches, unless there is a head, neck, spinal, or leg injury.
- If the person is vomiting or unconscious, place him or her in the recovery position.
- Keep him or her warm. Do not give food or water, as his or her body may not handle fluids properly while in shock.
- Check breathing and pulse regularly, and be prepared to perform CPR if he or she stops breathing.
- Control any bleeding if present.

Electrical Burns Treatment:

- Turn off the power source, if it is safe to do so.
- Do not touch the person until the power is off. If you cannot turn it off, use a non-metallic object (wood, plastic, or rubber) to separate him or her from the source.
- Check for responsiveness and breathing to determine if CPR is needed.
- Look for two burn sites: the entry and exit points.
- Send the person to the ER with an AED.

Chemicals Burns Treatment:

- Wear protective equipment to avoid getting burned.
- If dry chemicals are present, brush them off the person's skin before flushing with water.
- Flush the affected areas with large amounts of cool running water for at least 15 minutes.
- Do not use water for chemicals that react with water.
- Remove any wet or chemically contaminated clothing.

When to seek medical attention:

- If the burn is larger than the person's palm or involves the face, hands, feet, or genitals.
- If the burn is 3rd or 4th degree, regardless of size.
- If the burn is caused by chemicals, electricity, or an explosion.
- If the person becomes unresponsive.
- If the person has difficulty breathing.