



BASIC INFORMATION

WHAT IS BURNS?

- A burn is an injury to tissue or skin that can be caused by several sources
 - Heat
 - Sunlight
 - Chemicals
 - Electricity
 - Radiation
- There are six degrees (types) of burns, with 1st thru 3rd being most common household or workplace related
 - First-degree: damages the outer layer of skin only (epidermis)
 - Second-degree: damages both the outer layer and the layer underneath (dermis)
 - Third-degree: damages the deepest layers of skin and underlying tissues, often destroying these tissues
 - Fourth-degree: extends into fat layer
 - Fifth-degree: extends into muscle layers
 - Sixth-degree: extends into bone
- The severity of a burn depends on how large of an area it covers and how deep the damage goes

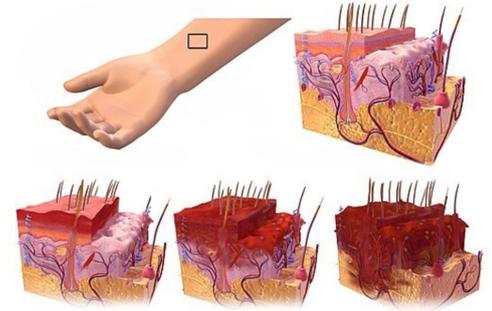


Image of Burns courtesy of BruceBlais [CC BY-SA 4.0]
Available at https://commons.wikimedia.org/wiki/File:1st_2nd_and_3rd_degree_burns.jpg

WHAT ARE COMMON SIGNS AND SYMPTOMS?

- First-degree
 - Redness, tenderness, pain
 - Generally no blistering
 - Minor skin damage
- Second-degree
 - Damage extends beyond the top layer of skin
 - Blisters
 - Extremely red and painful
- Third-degree
 - Destroy both dermis and epidermis
 - Can extend into tissue underneath
 - Can appear white or charred

WHAT CAUSES BURNS?

- Being scalded by hot liquids, steam, or hot surfaces is the most common
- Building fires
- Flammable liquids and gases
- Chemicals (wet or dry)
- Electricity
- Radiation

WHAT INCREASES MY RISK?

- Not having smoke/fire detectors
- Unsafe cooking/kitchen practices
- Working in a profession that has a high risk of burn potential or chemical exposure

WHAT ARE POSSIBLE COMPLICATIONS?

- Scarring
- Septic shock
- Death

WHAT CAN I EXPECT?

- The deeper the burn the longer it will take to heal
- For more severe burns you may need to be hospitalized

HOW DO I REDUCE MY RISK?

- Install smoke detectors and ensure strict maintenance (change batteries) and testing to make sure they are working
- General fire safety knowledge and family training
 - Fire escape plans and practice drills
 - Have your fireplace professionally cleaned and inspected yearly
 - Fire extinguisher on every floor and training on how to operate
 - Careful use of space heaters
- Keep pot and pan handles turned toward the back of the stove while cooking
- If you have small children
 - Teach children to avoid hot surfaces (stove, campfires, fireworks)
 - Outlet covers
 - Safety locks on cleaning supply storage
 - Do not carry hot items while carrying your child
 - Test bath water before placing your child in the tub
 - Check the temperature of heated beverages before giving them to your child
 - Keep matches and lighters away from your children
 - Test car seats and belt buckles when getting into a hot car
- If working in a profession with a high risk of burn potential, follow all safety regulations
 - OSHA
 - Workplace safety training and emergency drills
 - Hazard communication
 - Signs
 - Color codes
 - Labels

DIAGNOSIS AND TREATMENT

WHAT GENERAL MEASURES SHOULD I TAKE?

- Your healthcare provider will perform an exam, collect information regarding your signs and symptoms, and history of how burn happened
- Self-care
 - For minor burns
 - Place area in cool water for 10-15 minutes
 - Dry gently with a clean cloth
 - Cover with a sterile gauze or non-adhesive bandage
 - Do not break blisters
 - Over-the-counter pain medications can help with pain and swelling
 - For more severe burns
 - Follow your health care providers instructions
- Activity
 - Activity recommendations and restrictions would be dependant on degree, location, and severity of burn
- Diet
 - Remain adequately hydrated while healing
 - Dietary restrictions generally are not required unless burns affect your ability to eat, chew, or swallow
- Helpful Link(s)
 - To learn more: National Library of Medicine; MedlinePlus
 - Website: <https://medlineplus.gov/burns.html>

WHAT ARE COMMON LABS AND TESTS?

- Burns usually do not need labs or testing
- If you are hospitalized you may require labs

WHAT ARE MY TREATMENT OPTIONS?

- Minor burns can usually be treated at home with self-care
 - Remove person or body part from source of heat/ burn agent
 - Run cool water over the area or hold a cold compress on the area until the pain is relieved
 - Do not use butter, vaseline, ice, or other home remedies
 - Remove any tight clothing or jewelry from the area burned
 - You can apply antibiotic cream
 - Cover with a sterile gauze or non-adhesive bandage
 - Try to keep the burned area elevated to help reduce swelling
- Serious burns/ third-degree burns
 - Seek immediate medical attention
 - You may require hospitalization or transfer to a burn unit
 - Burned tissue may be removed and covered with skin graft
- Chemical burns
 - Dry chemicals should be brushed off the skin by a person wearing gloves
 - Remove clothing and jewelry and rinse chemicals off the skin in a shower for 15 to 20 minutes
 - Be careful to protect your eyes
 - Wet chemicals should be flushed off affected areas with cool running water for 20 minutes or longer or until emergency help arrives
 - If you or someone else has swallowed a chemical substance or an object that could be harmful (e.g., watch battery) call poison control first (1-800-222-1222) and then 911
 - It is helpful to know what chemical product has been swallowed
 - Take it with you to the hospital if unsure
- Minor electrical burns can be treated with cool (not cold or ice) compresses
 - After cleansing, a mild antibiotic ointment and bandage may be applied
 - A tetanus shot is also recommended, especially if the person has not had one in more than 10 years
- For more serious electrical burns
 - Check for breathing
 - If the person is not breathing, start rescue breathing if you know how
 - Raise burned arms and legs higher than the person's heart
 - Cover the person with cool, wet cloths

- Do not use butter, ointments or any other home remedy at site of electrocution
- Do not break the blisters or remove burned skin

WHAT MEDICATIONS MAY BE PRESCRIBED?

- Topical antibiotics
- Tetanus shot if not current
- Dressings containing silver to help prevent infection

WHAT CAUTIONS SHOULD I TAKE?

- Do not break blisters

WHEN SHOULD I SEEK MEDICAL HELP?

- Seek medical attention if the burn covers a large area of the body
- If there are signs of a deep second-degree or third-degree burn
- If the blisters appear to be filled with greenish or brown fluid
- The person burned is an infant or elderly
- If the burn was caused by electricity
- Fever
- Signs of an infection: puss or foul smelling
- Excessive swelling
- If a minor burn does not heal in 10 days to 2 weeks

MY HEALTHCARE PROVIDER'S COMMENTS

REFERENCES

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