

Burn Safety

Many tasks in the workplace pose burn hazards, such as performing electrical or steam system work, welding, handling chemicals, and working outdoors. In 2020 the Bureau of Labor Statistics (BLS) reported 11,840 thermal burns, 3,410 chemical burns, and 620 electrical burns in the United States. It is important to understand the burn hazards in your work area so you can take the necessary precautions to ensure your safety.

Types of Burns

First-degree burns are superficial, with minimal skin damage. Like a sunburn, the burn site is red and painful.

Second-degree burns injure a deeper layer of skin causing blisters and swelling and may result in scarring.

Third-degree burns destroy the skin and tissue underneath, often causing permanent damage. The burn site may appear white or charred.



Burn risk and prevention

Thermal burns are caused by the heat from activities like steam system work and welding, brazing, and soldering (i.e., hot work). Always follow safe work practices such as energy isolation procedures (lockout/tagout) and [hot work permits](#), and always wear appropriate personal protective equipment (PPE).

Chemical burns are caused by contact with strong acids, paint thinners, gasoline, and other harmful substances. Always review the [Safety Data Sheet \(SDS\)](#) before handling chemicals to obtain hazard and safety precaution information, such as required PPE (e.g., gloves, goggles).

Electrical burns occur when an electric current runs through the body and damages underlying tissues and organs. Always follow lockout/tagout procedures to confirm equipment is de-energized, wear appropriate PPE, and avoid contact with water when working with electricity.

Sun exposure burns (i.e., sunburns) can occur when you work outdoors for extended periods; keep in mind that you can get sunburned in the winter months and when the sun is not visible. Wear sun-protective work clothing (e.g., long sleeves, hats) and sunscreen, take frequent breaks, and stay hydrated.

Tips for treating burns in the workplace

- ✓ If the burn is serious, call 911 and seek medical care immediately
- ✓ Chill the burn by flushing with cool water for 10 to 15 minutes (do not do this for electrical burns)
- ✓ Cover the burn with dry, clean dressing (e.g., gauze)
- ✗ DO NOT use ice water, butter, ointments, or sprays on burns
- ✗ DO NOT touch the burn with anything except a clean covering
- ✗ DO NOT remove pieces of cloth that stick to burned areas
- ✗ DO NOT try to clean the burn or break any blisters
- ✓ Notify your supervisor of all burn injuries, no matter the severity
- ✓ Report all injuries [online](#) or call (847) 491-5582

Tips for Success When Talking to Your Team

Preparation is Key: Keep the topic relevant. Work with your team to review potential burn risks in your work area and discuss how the hazards can be avoided.

Stay Positive: Keep the focus on what can be done to create a safe workplace instead of focusing on what has gone wrong in the past.

Share a Story, Ask for a Story: Storytelling is a powerful method to convey information. Stories from your employees make the topic even more relatable.

Safety at Home

Kitchens and other cooking areas are where burn injuries are most likely to occur at home. Keep these tips in mind to ensure your family's safety:

- Use splatter guards while cooking to prevent burns from oil and grease
- When handling hot pots and pans, use oven mitts and potholders to avoid burns from hot surfaces
- Keep children away from cooking equipment, such as grills, ovens, and stoves, when in use
- Learn more about burn safety by reviewing the American Burn Association (ABA) [Prevention Resources](#)

For Additional Information

Contact Environmental Health & Safety at ehs@northwestern.edu

Do you or your team have a safety story you'd like to share? Contact Environmental Health and Safety for details.