Burns: types and treatments

A burn is an injury to the skin, mostly caused by heat, but can also be caused by chemicals or electricity. It can also harm or destroy muscle, tissue, and bone under the skin.

Children have thinner skin which burns at a lower temperature and in less time than adult skin. Protect your child by learning about the different types of burns and how to treat them.

**What are the different types of burns?**

Most people think of burns in degrees: first, second, and third. Doctors and nurses use these terms to talk about how thick and how bad the burn is. A first-degree burn can be minor or moderate. This depends on how much of the body the burn covers and how deep it is. The chart in figure 1 explains the different types of burns.

**How do I treat a minor burn?**

- Run cool (not cold) water over the burn or put a cool, clean rag on the burn for 3–5 minutes. Do not use ice.
- Use an antiseptic spray or cream to help stop pain and prevent infection.
- Cover the burn with a clean (sterile), dry dressing.

If the burn is not healing, is draining, or has a foul smell, call your child’s healthcare provider.

<table>
<thead>
<tr>
<th>Degree</th>
<th>Cause</th>
<th>Surface</th>
<th>Color</th>
<th>Pain level</th>
<th>Healing time</th>
</tr>
</thead>
<tbody>
<tr>
<td>First (superficial)</td>
<td>Sunburn, scald, flash flame</td>
<td>Dry, no blisters</td>
<td>Pink</td>
<td>Painful</td>
<td>2–5 days with peeling. Will not scar, but may be discolored</td>
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<tr>
<td>Second (partial thickness)</td>
<td>Hot liquids or solids, flash flame, chemical fires</td>
<td>Moist blisters</td>
<td>Pink to cherry red</td>
<td>Painful</td>
<td>Superficial: 5–21 days Deep with no infection: 21–35 days Infected: Treated as third-degree burns</td>
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<tr>
<td>Third (full thickness)</td>
<td>Hot liquids or solids, flame, chemical or electrical fires</td>
<td>Dry, leathery, charred blood vessels</td>
<td>White, waxy, pearly, dark khaki, mahogany</td>
<td>No pain; nerve endings are dead</td>
<td>Skin grafts needed. Large areas may need months to heal; small areas may heal with skin grafts in weeks</td>
</tr>
</tbody>
</table>

Figure 1
When should I take my child to the hospital for a burn?
Your child should be treated in a burn center if they have:

- A major burn, larger than the width of an arm (or two fist sizes)
- A burn on the face, hands, neck, groin, or feet
- Inhaled smoke

Burns often affect the systems or organs of the body. A team of healthcare providers will examine your child and make sure there are no other problems.

How do I treat a severe burn before my child goes to the hospital?

- Stop the burning or remove the source of heat. If your child’s clothes are on fire, have them stop, drop, and roll to put out the flames.
- Make sure your child is breathing. If your child is not breathing, call 911 and start CPR.
- Pour cool (not cold) water over the burned area. Keep pouring the cool water for at least 3–5 minutes (30–40 minutes if the burn is from a chemical). Do not put ice on the burned area. This could make the burn worse and make your child’s body temperature too cold.
- Remove all burned clothes and anything around your child’s neck, including jewelry. Burned areas swell quickly, and clothes may retain heat and cause more harm.
- Take off your child’s jewelry, belt, or anything that touches the burned areas.
- Cover burns with a soft, clean dressing, bandage, or sheet.
- Keep your child warm.

Never put ointments or butter on severe burns. The oil in these products may cause infection and make the burn worse.

How do I treat electrical burns?

- Disconnect the source of electricity, or call the power company for help if you can’t disconnect it. Do not touch your child if they are in contact with electricity. You will be injured.
- Once you have disconnected the electricity, check to see if your child is breathing. If your child is not breathing, call 911 and start CPR.
- Check your child for other injuries.
- Cover the burn with a clean dressing or bandage, and keep your child warm.

How do I treat chemical burns?

- Pour cool water over the burn site for 5 minutes. Be careful not to flush chemicals into parts of the body that were not contaminated.
- Remove your child’s clothing.
- If your child wears contact lenses, remove them before flushing their eyes.
- Read the label on the chemical or call Poison Control (1.800.222.1222) before giving your child first aid for specific chemicals.
- If your child swallows chemicals, take them to the emergency room immediately. Bring the poison your child swallowed with you if you know what it is. Do not let your child eat or drink anything.

Notes

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