First Aid merit badge 5f: Describe symptoms, treatment and prevention of burns
Tenderfoot 12b: Show first aid for minor burns or scalds (first-degree) and sunburn
Second Class 6c: Show first aid for serious burns (second degree)

Burns are divided into three classes: first-, second- and third-degree burns. First-degree burns are the most minor; third-degree burns are the most serious.

Preventing a burn is often a matter of common sense: be aware of heat sources and wear protective equipment when necessary. Be aware of potentially flammable materials and take appropriate measures to protect yourself from accidental ignition. In the case of sunburn, wear sunscreen and limit exposure to direct sunlight.

**First-Degree Burns and Sunburns**

A first-degree burn is a burn that damages only the surface of the skin. A sunburn is a first-degree burn caused by the radiant energy of the sun.

Symptoms include:
- Redness
- Pain

Treatment of first-degree burns includes:
- Remove the source of heat. In the case of a sunburn, cover up or go inside.
- Run the burn under cool water to stop the burning and ease the pain.
- Cover the burned area to prevent further damage.
- If desired, apply a burn cream after the burn has been completely cooled.
- Do not apply ice directly -- it can cause frostbite. If ice must be used, wrap it in a towel to prevent direct skin contact.

First-degree burns are not life-threatening.

**Second-Degree Burns**

A second-degree burn is a burn that damages the surface of the skin and the tissue beneath.

Symptoms include:
- Redness
- Blistering
- Sharp pain around the edge of the burn, dull pain at the center of the burn

Treatment of second-degree burns includes:
- Remove the source of heat.
- Run the burn under cool water for 10 minutes to ensure that all the heat has gone and the burning process has stopped.
- Dress and bandage the burn loosely to protect it from further damage.
- Do not pop any blisters that appear. Doing so will create an open wound where infection can set in. Blisters will disappear on their own within a day.
- Consider the burn to be an open wound -- watch for infection and treat accordingly.
- Do not apply ice directly -- it can cause frostbite. If ice must be used, wrap it in a towel to prevent direct skin contact.

Small second-degree burns (a burned hand) are not life-threatening. Large second-degree burns that cover more than 9% of the body are life-threatening. Use the "rule of nines" as a guide. Second-degree burns on the face require medical attention.

**Third-Degree Burns**
A third-degree burn is a burn that destroys the surface of the skin and the tissue beneath.

Symptoms include:

- Gray, black or charred skin
- Blistering around the edges
- Little or no pain in the center of the burn

Treatment of third-degree burns includes:

- Remove the source of heat.
- Run the burn under cool water for 10 minutes to ensure that all the heat has gone and the burning process has stopped.
- Dress and bandage the burn loosely to protect it from further damage.
- Do not pop any blisters that appear.
- Do not apply ice directly -- it can cause frostbite. If ice must be used, wrap it in a towel to prevent direct skin contact.
- Do not attempt to peel away any burned clothing that is stuck to the burn.
- Seek medical attention immediately.

Third-degree burns always require medical attention. Large third-degree burns that cover more than 9% of the body are life-threatening. Third-degree burns on the face are life-threatening.

**Electrical Burns**

Burns caused by electricity present a special problem. Because electricity goes through the body between two points, it does not cause visible burning except (maybe) at the entry and exit points.

If a victim is electrocuted, look for the following symptoms:

- Any signs of burning on the surface of the skin, even in very small spots
- Any pain or discomfort away from the entry and exit points
- Any numbness or loss of coordination
- Irregular heartbeat or difficulty breathing

If any of those symptoms appear, assume the victim has life-threatening internal third-degree burns. Seek medical assistance immediately.

**The Rule of Nines**

The rule of nines is a fast way to estimate the amount of body area covered by a burn. It is based on dividing the body into sections of 9%-18% of the total body surface area. The head and neck are considered to be a single 9% section, and the remainder of the body is divided into 9% sections, with each major body part having a specific percentage: upper and lower extremities (21% each), arms and legs (18% each), back (18%), and chest and abdomen (18%).
The "rule of nines" is a fast way to estimate the amount of body area covered by a burn. If a serious (second- or third-degree) burn covers 9% of the body surface, it is life-threatening. The one exception is that a second- or third-degree burn on the face is life-threatening, regardless of size.

Note that all third-degree burns require medical attention; the rule of nines is only a guide to when the situation is an emergency.