Understanding Your Burn Injury

The seriousness of a burn is measured by how much of the body is burned and how deep it goes into the skin. The goals for treating any type of burn is to prevent infection, promote healing, control pain, and keep the skin’s ability to move and function.

About your skin

The skin is the largest organ of the body and provides a protective covering. The outer layer, called the epidermis, is a thin layer of skin. The next layer is called the dermis and it has the blood vessels, nerve endings, sweat glands, and hair follicles. This is the layer that is necessary for healing. The deepest layer is made up of the fat and muscle.

The skin has many functions.

• Protects your body from infection and injury
• Has nerve endings, which are sensitive to pain, touch, pressure and temperature
• Secretes oils
• Produces Vitamin D
• Helps regulate body temperature
• Creates our appearance and identity
• Prevents the loss of fluids from your body

Burn injury and how it is measured

A burn injury destroys all or part of this protective covering and may affect all or part of these functions. Large burn injuries may also change the function of other body organs. For this reason, a burn is thought of as a total body injury.

A burn is measured in 2 ways to decide how serious it is:

• **Percentage** is the amount of your body surface that is burned. For example, a 10% body burn means that 10% of your body is burned.
• **Depth** is how many layers of skin are damaged, called first, second, or third degree. It may take 24 to 48 hours to know how deep the burn is.

The depth and percentage together are used to know what treatment is needed.
**Depth of burn**

**First Degree Burns**
A first degree burn involves only the top layer of skin, called the epidermis. This may also be called a superficial burn. A sunburn is one example.

These burns:
- Are painful and red
- May have thin-walled blisters
- Will heal itself in 3 to 7 days and should not scar

The treatment for a first degree burn is to keep it clean, use moisturizers, and take over the counter pain medicines, as needed.

**Second Degree Burns**
The second degree burn, or partial thickness burn, involves the epidermis (top layer of skin) as well as part of the dermal layer. These burns:
- Are very painful
- Will have large, thick-walled blisters that grow in size
- May be moist or have peeling skin
- Still have hair
- May have scarring

This burn may take 2 to 4 weeks to heal. In some cases, a skin graft may be needed to speed up healing and improve how it looks. The treatment includes daily cleaning of the wound, removing loose skin, and using antibiotic cream or specialty dressing.

**Third Degree Burns**
A third degree burn, or full thickness burn, involves the epidermis and all of the dermis. It may also involve the fat and muscle layer. These burns:
- Are usually not painful since the nerve endings are destroyed
- May look white, gray, or brown
- Have a leathery texture, called eschar

To treat this, the eschar must be removed and replaced with healthy tissue by doing a skin graft. Scarring will always occur, but may be less with treatment.

Talk to your doctor or health care team if you have any questions about your care.

For more health information, contact the Library for Health Information at 614-293-3707 or e-mail health-info@osu.edu.

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