

Conceptual study of Evaluation of burn injuries

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Abstract:

Most burns are minor injuries that occur at home or work. It is common to get a minor burn from hot water, a curling iron, or touching a hot stove. Home treatment is usually all that is needed for healing and to prevent other problems, such as infection. Burn injuries are a global public health problem, accounting for an estimated 265,000 deaths. Globally, over half of the disability-adjusted life years lost from fire-related burns which occurred between the ages of 0 and 14 years. The rate of child deaths from burns is currently over 7 times higher in low- and middle-income countries than in high-income countries therefore review of Evaluation of burn injuries has been carried out.

Keyword: burns, *itartha dagdh*, types of burns, Rule of nine

Introduction:

Most burns are minor injuries that occur at home or work. It is common to get a minor burn from hot water, a curling iron, or touching a hot stove^[1]. Home

treatment is usually all that is needed for healing and to prevent other problems, such as infection. Burn injuries are a global public health problem, accounting for an estimated 265,000 deaths^[4]. Considering these fact the Conceptual study of Evaluation of burn injuries has been carried out.

Aims and Objects:

Aim and objects of this critical Review of this study is the evaluation of the importance of the various types of burns in medico-legal aspects.

Material and Method:

Literature reviewed from Modern Allopath text and Ancient Ayurvedic classical text and online web published studies.

Review of Literature:

There are many types of burns.

1. **Heat burns (thermal burns)** are caused by fire, steam, hot objects, or hot liquids. Scald burns from

hot liquids are the most common burns to children and older adults.

2. **Cold temperature burns** are caused by skin exposure to wet, windy, or cold conditions.
3. **Electrical burns** are caused by contact with electrical sources or by lightning.
4. **Chemical burns** are caused by contact with household or industrial chemicals in a liquid, solid, or gas form, such as acids. Natural foods such as chili peppers, which contain a substance irritating to the skin, can cause a burning sensation.
5. **Radiation burns** are caused by the sun, tanning booths, sunlamps, X-rays, or radiation therapy for cancer treatment.
6. **Friction burns** are caused by contact with any hard surface such as roads ("road rash"), carpets, or gym floor surfaces. They are usually both a scrape (abrasion) and a heat burn. Athletes who fall on floors, courts, or tracks may get friction burns to the skin. Motorcycle or bicycle riders who have road accidents while not wearing protective clothing also may get friction burns. For information on treatment for friction burns, see the topic Scrapes.^{[1] [2] [3]}
7. **Breathing in hot air or gases** can injure your lungs (inhalation injuries). Breathing in toxic gases, such as carbon monoxide, can cause poisoning.

Burns injure the skin layers and can also injure other parts of the body, such as muscles, blood vessels, nerves, lungs,

and eyes. Burns are defined as first-, second-, third-, or fourth-degree, depending on how many layers of skin and tissue are burned. The deeper the burn and the larger the burned area, the more serious the burn is.

- First-degree burns are burns of the first layer of skin.
- There are two types of second-degree burns:
- Superficial partial-thickness burns injure the first and second layers of skin.
- Deep partial-thickness burns injure deeper skin layers.
- Third-degree burns (full-thickness burns) injure all the skin layers and tissue under the skin. These burns always require medical treatment.
- Fourth-degree burns extend through the skin to injure muscle, ligaments, tendons, nerves, blood vessels, and bones. These burns always require medical treatment.

The seriousness of a burn is determined by several things, including:

- The depth, size, cause, affected body area, age, and health of the burn victim.
- Any other injuries that occurred, and the need for follow-up care.
- Burns affect people of all ages, though some are at higher risk than others.
- Most burns that occur in children younger than age 5 are scald burns from hot liquids.
- Over half of all burns occur in the 18- to 64-year-old age group.

- Older adults are at a higher risk for burns, mostly scald burns from hot liquids.
- Men are twice as likely to have burn injuries as women.

Burns in children^[5]:

Babies and young children may have a more severe reaction from a burn than an adult. A burn in an adult may cause a minor loss of fluids from the body, but in a baby or young child, the same size and depth of a burn may cause a severe fluid loss.

A child's age determines how safe his or her environment needs to be, as well as how much the child needs to be supervised. At each stage of a child's life, look for burn hazards and use appropriate safety measures. Since most burns happen in the home, simple safety measures decrease the chance of anyone getting burned. See the Prevention section of this topic.

When a child or vulnerable adult is burned, it is important to find out how the burn happened. If the reported cause of the burn does not match how the burn looks, abuse must be considered and resources for help, such as social services, offered. Self-inflicted burns will require treatment as well as an evaluation of the person's emotional health.

Infection is a concern with all burns. Watch for signs of infection during the healing process. Home treatment for a minor burn will reduce the risk of infection. Deep burns with open blisters are more likely to become infected and need medical treatment.

Observation:

Estimating burn size in adults is evaluated by the The "rule of nines" for adults.

- The front and back of the head and neck equal 9% of the body's surface area.
- The front and back of each arm and hand equal 9% of the body's surface area.
- The chest equals 9% and the stomach equals 9% of the body's surface area.
- The upper back equals 9% and the lower back equals 9% of the body's surface area.
- The front and back of each leg and foot equal 18% of the body's surface area.
- The groin area equals 1% of the body's surface area.
- The front and back of the head and neck are 21% of the body's surface area.
- The front and back of each arm and hand are 10% of the body's surface area.
- The chest and stomach are 13% of the body's surface area.
- The back is 13% of the body's surface area.
- The buttocks are 5% of the body's surface area.
- The front and back of each leg and foot are 13.5% of the body's surface area.
- The groin area is 1% of the body's surface area.
- The "rule of palm" is another way to estimate the size of a burn. The

palm of the person who is burned (not fingers or wrist area) is about 1% of the body. Use the person's palm to measure the body surface area burned.

Conclusion:

Burns can be quickly estimate on the size of burn by using the "rule of nines." This method divides the body's surface area into percentages. It can be hard to estimate the size of a burn. If you think a burn is a certain size but you are unsure, it is best to discuss the size of the burn with your doctor.

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