

Third Degree Burns and Hydrotherapy

June 24, 2011

Hydrotherapy is the external use of water in the medical treatment of certain diseases. Most burn units in hospitals have hydrotherapy rooms. Hydrotherapy softens and removes dead tissue enabling new healthy tissue to form and promote healing.

Hydrotherapy can have other effects in addition to removing dead and damaged tissue, it can:

- prevent the fluid loss through the burned skin which may result in fluid depletion and dehydration.
- Remove debris and clean the wound surface.
- Provide a good environment for wound healing.
- Decrease the risk of infection.
- Decrease the risk of scar tissue formation.
- The wound has microbial flora, hydrotherapy help adjust them.
- Help facilitate physical therapy.
- Promote healing and the formation of healthy tissue.
- Help provide comfort for the patient.

Hydrotherapy for burns can start within a few days of the trauma once patients have recovered from the initial shock and their condition has stabilized. Burn patients often receive daily hydrotherapy throughout their hospitalization. As the burn begins to heal, hydrotherapy may be reduced to three times per week on an outpatient basis. Hydrotherapy is administered by nurses and specialized technicians. Sometimes physicians or physical therapists are also involved in the hydrotherapy sessions.

Immersion hydrotherapy:

Many burn units use immersion hydrotherapy on all patients, regardless of the extent of the affected body surface. Immersion hydrotherapy is performed in tubs called hydrotanks, or burn tanks; these may be equipped with lifts to ease the patient in and out. Hydrotherapy tubs must be carefully disinfected after each use, since infection of the damaged tissue is one of the most serious side effects of burns. Disposable liners are used in some burn tubs, and the water is sterilized. Hydrotherapy for burns should never be performed in a public tub because of the risk of infection.

Shower hydrotherapy:

Many burn units are replacing immersion hydrotherapy with shower hydrotherapy, because of the risk of infection from hydrotubs and because showering immediately rinses away dead skin and bacteria. Showering removes dead tissue as effectively as immersion hydrotherapy. A shower trolley or stretcher is draped with a sterilized disposable plastic sheet to reduce the risk of contamination that can cause infection. The patient lies on the sheet and receives hydrotherapy through a showerhead. Patients with less severe burns can be showered while sitting in a chair. Shower hydrotherapy utilizes tap water, but a chlorine solution is run through the showerhead to disinfect it. Handheld showerheads are recommended when performing hydrotherapy at home, since strong hospital-grade disinfectants require special handling.

The duration of hydrotherapy treatments varies greatly. Hydrotherapy for burns is often performed for just a few minutes at a time because it can be intensely painful. Pain medication is often administered before hydrotherapy, and general anesthesia may be required before performing hydrotherapy on the most severe burn victims. In some centers water friendly virtual reality have been used during burn treatment in hydrotherapy tubs. This diverts the patient's attention away from the pain signals.

Burn patients often undergo physical therapy during hydrotherapy. The physical therapist encourages the patient to perform movements and participate in the bathing when possible.

Hydrotherapy and chemical burns:

When hydrotherapy is administered for chemical burns, either acid or alkali, within one minute, there is far less damage to skin than if treatment is delayed for even three minutes. A delay in hydrotherapy can lead to irreversible damage. Prolonged gentle rinsing of the burn with a large volume of water under low pressure dilutes the chemical, washes it out of the skin and normalizes the PH of the skin.

This information is not intended nor implied to be a substitute for professional medical advice; it should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. Call 911 for all medical emergencies.

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