Burn Therapy Resources

Types of Burns

- **Thermal burns.** Burns that are due to heat sources on the skin.
- **Radiation burns.** Burns that are due to prolonged exposure to UV-rays or X-rays.
- **Chemical burns.** These burns are due to strong acids, alkalis, detergents, or solvents coming into contact with the skin or eyes.
- **Electrical burns.** Burns from AC or DC electrical current.

Burn Classification

- **First-Degree (superficial) burns.** Affects the epidermis or outer layer of skin.
- **Second-Degree (partial thickness) burns.** Affects the epidermis and part of the dermal layer of the skin.
- **Third-degree (full thickness) burns.** The epidermis and dermis is destroyed. Underlying structures that are protected by the skin’s layers, such as muscle, tendon, and bone can also be affected with a third-degree burn.

Rule of Nines. The percentage of the body that is burned is determined using the Rule of Nines. More information on the percentage of each portion of the body can be found here: [Rule Of Nines For Burns - Health Library | NewYork-Presbyterian (nyp.org)]

Qualification for Burn Rehab.

The American Burn Association recommends that burn patients who meet the following criteria should be treated at a specialized burn center:

- Individuals with partial thickness burns over 10% or more of the total body surface area (TBSA)
- Any age with full-thickness burns
- Burns of the face, hands, feet, or groin, or genital area, or burns that extend all the way around a portion of the body.
- Burns accompanied by an inhalation injury affecting the airway or the lungs.
- Burn patients with existing chronic conditions such as diabetes, high blood pressure, heart disease, kidney disease, or multiple sclerosis.
- Suspected child or elder abuse
- Chemical burn
- Electrical injury
## Three phases of Burn Care

- **Emergent Phase** (first 72 hours) Priorities: First Aid, Prevention of Shock and Respiratory Distress, Pain Management.

Table 1: Precautions when providing occupational therapy to a client with a burn.

<table>
<thead>
<tr>
<th>Patient Need</th>
<th>Description</th>
<th>OT Reaction</th>
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| Hemodynamic instability | Patients in shock may have vital sign changes with interventions | • Defer the treatment session  
• Re-assess the patient’s tolerance daily. |
| Range of Motion (ROM) | Biobrane dressings                           | • ROM is deferred for 24-36 hours                     |
| Skin grafts           | Involved joints are immobilized for 5-7 days | • Limit ROM to areas not involved                     |
| Pain Management       | Pain with movement                           | • Coordinate session for optimal pain management     |
**Occupational Therapy’s Role in Burn Rehab**

**General Resources**

NYSOTA July 2023 Newsletter

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**Figure 1: General goals with burn rehabilitation.**

- Minimize scarring and contracture
- Increase chance of participation in treatment
- Address changes to functional areas throughout treatment to maximize successful goal achievement

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**Occupational Therapy Interventions for clients with burns:**

- Positioning, mobility, and exercise
- Splinting
- Wound management
- Pain management
- ADLs/IADLs
- Patient and family education and counseling
- Scar management with massage and compression garments
- Psychosocial support—connecting clients with support groups and working with family to reintegrate back into daily roles and routines following recovery.
- Adaptive equipment

Continuing Education: [Educational Resources – American Burn Association (ameriburn.org)](ameriburn.org)

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**Evidence-based Practice and Burn Therapy:**

- [Effectiveness of incorporating occupational therapy in rehabilitation of hand burn patients](nih.gov)

- [Expanded Delivery Model for Outpatient Burn Rehabilitation](Oxford Academic (oup.com))

- [Treating Burn-Associated Joint Contracture](Oxford Academic (oup.com))