

## Stages of Burn Care

Management of burn care is organized into three stages: emergent, acute, and rehabilitative. The major concerns during the stages of burn care include fluid replacement, wound healing, and psychosocial support. After removing the patient from the source of the burn, the healthcare team evaluates the patient's ABCs and proceeds to implement the steps of burn care management.



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### Phase / Stage 1

#### Resuscitative/Emergent Phase

##### Emergency-lights

The emergent (resuscitative) phase of burn management begins at the time of burn injury. The focus of this phase is to address the immediate and potentially fatal problems caused by the burn injury. Assessing the patient's burns will determine the plan of treatment (refer to the Picmonic "Burns Assessment"). The main concerns include hypovolemic shock and edema formation.

#### Injury to Return of Capillary Permeability

##### Injured Returning to Caterpillar

As quickly as 20 minutes after the burn occurs, injury to the capillaries can cause major fluid and electrolyte shifts from the vasculature into the interstitial tissues. The primary concern is hypovolemic shock, as the vascular fluids move into interstitial spaces (second-spacing) and areas that normally have no fluid (third-spacing), leading to vascular volume loss. Examples of third-spacing include blisters and edema. Capillary permeability is restored by adequate fluid replacement. As interstitial fluid gradually returns to the vascular space, edema disappears and diuresis begins.

#### 48-72 hours

##### (40) Oz and (8) Ball to (70) Guy and (2) Tutu

The emergent phase usually lasts 48-72 hours from the time the burn occurred. The beginning of diuresis marks the end of the emergent phase.

#### IV Fluid Replacement

##### Fluids being Replaced by IV

Patients with 15% TBSA or more will need at least two large bore IV access sites for infusing large volumes of fluid (refer to the Picmonic on "Rules of 9s"). After calculating the patient's fluid needs using the Parkland (Braxton) formula, crystalloid solutions (Lactated Ringer's) or colloidal solutions (albumin) are infused as scheduled. Colloidal solutions are recommended after the first 12-24 hours postburn when capillary permeability returns to normal and the fluid stays in the vasculature for circulation. The rate of fluid administration is titrated hourly based on patient response such as urine output or vital signs.

### Phase / Stage 2

#### Acute Phase

##### Acute-angle

During the acute phase of burn management, wound care is the primary focus. This phase, which may last for weeks or months, starts with diuresis and ends with wound healing or skin grafting. Bowel sounds return and the patient may need psychosocial support as reality sets in. The patient's laboratory values, especially sodium, potassium, and glucose, should be closely monitored as capillary permeability restores to normal. As the burn wounds begin to heal, encourage the patient to stretch and move as much as possible to prevent painful contractures.

#### Diuresis to Near Wound Closure

##### Die-rocket Near Wound Closure

Fluid mobilization results in diuresis and the patient becomes less edematous. Necrotic tissue surrounding the wound sloughs off as fibroblasts begin the process of forming granulation tissue. Partial-thickness burn wounds will heal within 10-21 days as long as kept moist and free of infection. However, full-

thickness burn wounds require the surgical excision of burn eschar and application of skin grafts for healing.

### Phase / Stage 3

#### **Wound Closure to Return of Optimal Level**

##### **Wound Closure Returned to Fame**

During the final stage of burn care management, wounds have healed and the patient begins to engage in self-care. The patient works toward rehabilitation and reintegration into society. Teaching and psychosocial support will help the patient manage changes in body image. Since newly-healed areas of skin may be hypersensitive to sun, teach the patient to avoid direct sunlight for the next 3 months to prevent hyperpigmentation and sunburns. Teach the patient how to complete dressing changes and wound care. If necessary, refer the patient to home care nursing services for follow-up care after discharge.