AlloDerm is another product that is used similarly to Integra. It is made from natural tissue that is processed to remove cells that can lead to tissue rejection. The resulting acellular tissue contains epithelial elements that provide a foundation for new tissue regeneration. With dermal replacements, advantages include faster healing of the burn wound when integrity of the dermis is restored, faster healing of donor sites with the use of ultrathin grafts, and restoration of sweat glands and hair follicles. A disadvantage is its high cost.

Cultured epithelium.

When burns are extensive and donor sites for split-thickness skin grafting are limited, it is possible to culture cells from a full-thickness skin biopsy and produce coherent sheets that can be applied to clean, excised full-thickness burns. Epithelial cell culture grafts offer the possibility of an unlimited source of autografts in patients with extensive burns. Cultured epithelial autografts (CEAs) are effective in early wound closure. The child's own skin is fractionated and cultured in a porcine media to form a thin epithelial layer that is applied to the burn. This technique offers an improved rate of survival in patients with extensive burns and limited donor sites.

Nursing Care Management

Because the care of burned children encompasses a broad range of skills, nursing care has been divided into segments that correspond with the major phases of burn treatment. The **acute phase**, also referred to as the *emergent* or *resuscitative phase,* involves the first 24 to 48 hours. The **management phase** extends from the completion of adequate resuscitation through burn coverage. The **rehabilitative phase** begins when the majority of the burns have healed and rehabilitation has become the predominant focus of the care plan. This phase continues until all reconstructive procedures and corrective measures are accomplished (often a period of months or years).

Acute Phase

The primary emphasis during the emergent phase is the treatment of burn shock and the management of pulmonary status.