

Paediatric patients often present a unique set of challenges in adapting treatment specifics to meet the demands of the active child. Maintaining wound coverage and optimal positioning of the dressing and joints is imperative in allowing healing and achieving optimal outcomes. One particular paediatric group presenting to The Burns and Plastic Surgery Centre (BPTC) were identified as requiring redesign of current splinting practices due to high rates of wounds dehiscing post operatively. Children undergoing insertion of tissue expanders to allow excision and reconstruction of scar tissue or naevus are at high risk of rupture of the expanders in the expansion phase and of the wound dehiscing post removal of expanders. After tissue expanders are removed and the scar or naevus is resected the resulting suture line heals under tension and often in a mobile area. Paediatric patients are very difficult to contain while the wound is healing. As a result, wound breakdown and dehiscence has become a common occurrence resulting in more frequent returns to operating theatre for revision of the suture line, longer stays in hospital to enforce bed rest and more visits to the clinic for dressings. This pattern was recognised as an increasing problem in this patient group by all members of the multidisciplinary team. The physiotherapy team in consultation with the clinical nurse specialist devised a unique plaster shell designed to relieve the tension on the healing wound and limit the specific movements that exert high levels of tension on the wound. This protective shell in combination with specific education of parents and carers allowed patients to be discharged home between appointments without needing an extended inpatient stay. This presentation will outline the redesign process and evaluate the effect of this alternate splinting design on the outcomes in this paediatric group.