

**Introduction:** The majority of pediatric palmar hand burns are managed nonoperatively. Children often reflexively withdraw their hands making a fist during a thermal burn; this protects them from deep palm burns. Acute burn issues when managed expeditiously, lead to fewer future reconstructive needs. When a need does arise, as with subsequent palmar contracture, the mainstays of therapy are split and full thickness skin grafts. Donor sites include plantar and hypothenar surfaces as well as the groin and lower abdomen. These latter donor grafts in ethnic populations tend to darken over time. Our aim was to review the outcomes of plantar split thickness skin grafts used to resurface or release palmar contractures in pediatric patients. **Method:** A retrospective chart review, looking at the treatment plan and recontracture rate of mature palmar hand burns between 2000 and 2010 resurfaced with plantar grafts. Over this ten year period 14 pediatric patients were treated specifically for palmar burns. The average age of injury was 1.5 years old. The age range for the use of glabrous grafts on the palms was 3.9-17 years. The thickness of the grafts ranged from 0.018-0.024/inch. The length of follow-up was from 6 months to 84 months. **Results:** Of the 14 patients treated with plantar grafts, at final follow-up all were noted to have acceptable function with good color match. At short-term final follow-up, 5 (35%) at 6 months showed complete graft take without contracture. However 9 (64%) of patients followed from 6-84 months, 8 (88%) developed contracture. The average time to contracture was 8 months. **Conclusion:** Glabrous split thickness skin grafts offer an aesthetically more pleasing reconstruction for palmar deformities due to burns. However they carry high recontracture rate and may be indicated only in the older pediatric patient population due potential need for future multiple operations.