

TO TAPE OR NOT TO TAPE? Innovative use of Kinesiotape in children's hand burns

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At the Royal Children's Hospital Stuart Pegg Paediatric Burn Centre, many children present with significant palmar hand burns. Functional alternatives to splinting have been explored and **Kinesiotape** has demonstrated benefits in maintaining active range of motion (AROM) and maximising function.



Although splinting has long been used to prevent contracture, limitations can include muscle atrophy and flattening of palmar arches associated with long term immobilisation. Splinting impedes functional hand use - an important component of contracture prevention and a necessity for general development & engagement in occupational roles.

Studies outside of burns have highlighted the use of Kinesiotape in providing muscle facilitation & improving AROM. Other suggested benefits include improvement in lymphatic flow and reduction of pain and swelling. A case review of 6 children was conducted, using a sample of convenience, to test the use of Kinesiotape to maintain AROM and function in children.



Can I play?!

Splint
= No!

Kinesiotape
= Yes!

Kinesiotape was applied on the dorsal unaffected surface of deep partial to full thickness palmar surface burns, at initial dressing, where splinting may have been indicated to prevent contracture.

Functional hand use & ROM were assessed through parent report & observation at time of application & subsequent appointments. Patients returned to clinic after 3 days for dressing change, to monitor effectiveness & risk.



Outcomes:

- No loss of active or passive ROM.
- No adverse outcomes seen.
- Enabled function and participation in age-appropriate occupational performance. Children demonstrated use of their affected hand in play & self-care roles such as feeding & dressing. Kinesiotape allowed effective grasp / release, bilateral function & fine motor control.
- Use of the affected hand has provided increased independence and control, potentially leading to an increased sense of well-being.



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