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Current  
ORTHOPAEDICS

## MINI-SYMPOSIUM: HAND TRAUMA

### (i) Skin cover in hand injuries

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#### KEYWORDS

Skin cover;  
Hand injuries;  
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Flaps to the hand

#### Summary

Prompt coverage of skin loss associated with major hand injuries ensures primary healing, protects the reconstruction of the underlying structures and facilitates early rehabilitation. Radical debridement prior to the provision of skin cover is important. Flap cover is chosen according to the functional requirements of the site to be covered, need for access for further procedures and donor site morbidity. Combined defects can be reconstructed with composite flaps. Coverage of large defects can be made simpler by providing flap cover only to critical areas which definitely need flap cover and the rest with skin grafts. With the wide choice of flaps available to cover a particular defect, the surgeon's experience with the particular flap and donor site morbidity, on which depends the long-term satisfaction of the patient, become the main considerations in the choice of the flap. © 2008 Elsevier Ltd. All rights reserved.

#### Introduction

Most major hand injuries have skin loss as one of the injury components. With the technical advances and refinements in reconstruction that have been made in the past few decades, many mutilated hands can be saved to provide useful function. However good are the techniques of skeletal fixation, tendon or nerve reconstruction, unless the overlying skin heals primarily or the skin loss is made good in time we cannot expect primary healing of the underlying structures. In addition, the skin cover that we provide must allow the hand to meet the functional demands of the individual. In this review, the guiding

principles in providing skin cover are first outlined, then the later half details the coverage considerations of specific areas and technical considerations of some commonly used flaps.

#### General principles

##### Debride adequately before providing skin cover

The wound must be debrided adequately before providing skin cover. This is important irrespective of the site of injury or the type of skin cover chosen. If this point is missed, infection sets in and the reconstruction may end in failure. Debridement must be done under anaesthesia, with good lighting and tourniquet to ensure adequate debridement and prevent inadvertent injury to vital structures. A three-dimensional excision of the wound must be performed,<sup>1</sup> but taking care to retain the longitudinal structures such as

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