



# Neurovascular Island Flap for Reconstruction of Wassel IV Thumb Duplication

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## Introduction

A number of techniques are used for reconstruction of Wassel IV thumb duplications, with the aim of reconstruction to obtain a stable, mobile thumb of adequate size and shape. Techniques include preserving the ulnar thumb, reconstructing a contour defect with a radial neurovascular island flap and the Bilhaut Cloquet procedure. A persistent problem is the asymmetry between the reconstructed and normal contralateral thumb.

## Materials and methods

We describe our technique for reconstruction of Wassel IV thumb duplications. Either the radial or ulnar digit is preserved, depending on which digit is more functional. A neurovascular island flap is dissected out from the thumb to be removed. Specific modifications include the use of bruner incisions dorsally and volarly to reduce scarring at the interphalangeal joint and also complete mobilization of the island flap on its pedicle to allow easier inset. Nine flaps in 8 children had surgery for Wassel IV thumb duplication.

## results

All neurovascular island flaps survived with good contour, shape and symmetry compared to the contralateral thumb.

## Conclusions

Reconstruction of Wassel IV thumb duplications with an island neurovascular flap allows for good symmetry in shape and size following reconstruction.

Figure 1



Figure 2



Figure 3

