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# Primary use of the index finger for reconstruction of amputated thumbs<sup>☆</sup>

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**Summary** Seven cases of primary reconstruction of traumatic amputation of the thumb using the index finger are reported. In six cases, the reconstruction was done using an injured index finger, while in one case where the amputation of the thumb was through the carpometacarpal joint, an intact index finger was primarily pollicised. This reduces cost of treatment, hospitalisation period and allows earlier rehabilitation without a period of a 'no thumb experience'. We have followed all the patients for a minimum period of 2 years and all of them have excellent functional results. We believe that pollicisation of a normal index finger, if thumb amputation is through the carpometacarpal joint or an injured index finger at the time of initial management of a severely traumatised hand with thumb amputation is an excellent technique for thumb reconstruction.

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Traumatic loss of the thumb significantly alters the functional capacity and aesthetic symmetry of the hand. The creation of a functional and aesthetically pleasing thumb is one of the most challenging procedures in the field of hand surgery. The thumb contributes 40-50% of the total function of the hand and its reconstruction has stimulated many and varied procedures worldwide. Until recently, pollicisation was the technique of choice for reconstructing a functional thumb. However, with the development of microvascular techniques, pollicisation has been used less often for traumatic reconstructions. When there is an injured finger

available or where the thumb amputation approaches the carpometacarpal joint, pollicisation may still be the preferred post-traumatic reconstruction technique.<sup>1</sup>

The advantages of pollicisation include safety, technical ease, expediency and preservation of sensory function. This is more so in the case of traumatic thumb injuries, which are commonly associated with mutilation of one or more of the remaining digits. The most common digital injuries associated with thumb loss are partial or complete amputation of the index or index and long fingers. In such cases, the traumatised digital stumps may be advantageously transposed to reconstruct thumb losses.

Our patients seem to object less to the sacrifice of an injured finger in a compromised hand than to the sacrifice of a completely different part of the

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