

# THE MANGLED HAND: WHAT TO DO BEFORE TRANSFER

Stephen McCollam M.D.  
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## Thanks to Operative Hand Surgery



Green's  
OPERATIVE  
HAND  
SURGERY



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## Where to start??



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### Take a history

- What do they do for a living?
- What are there co morbidities?
- What drugs are they on?
- What are their needs?
- What are their expectations?
- Where was the injury-farmyard...?
- Blast/crush/sharp/combo ?
- How long since the injury ?



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### Examine the hand

- Document sensation , motor-1<sup>st</sup> DI/Th/EPL
- Vascular status of hand, 
- r/o any other injuries or medical instability
- Resting digital cascade
- Take pictures?



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### Get some x-rays at least...

- CT?
- Doppler?



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## Start at the beginning : Clean it up

### I&D

- Debride all non vitalized tissue
- Document damaged structures; take intra op pictures?
- Serial I&D q 24-36 hours till transfer
- Throw away the bad stuff



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## BONE :Stabilize skeleton first

- Hand privileged : go for definitive fixation
- Plate metacarpals
- Pin phalanges
- Try and avoid ex-fix...tendon/muscle entrapment
- Prioritize: AMA Guides-thumb 40%, IF/MF 20% each, RF/SF 10% each



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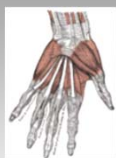
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## Soft tissues:Repair tendons/nerve

- Try and repair all soft tissue structures as possible
- Tag what needs to be repaired later



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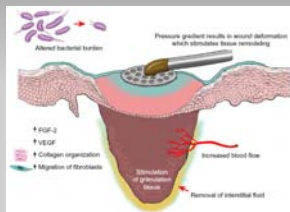
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## Skin Coverage

- Loosely close what you can
- Cover bone, exposed tendons where possible
- Consider using skin of devitalized digits as "spare parts"
- Negative pressure dressing to reduce edema and "footprint" for coverage



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## Summary

- I&D
- Skeletal stability
- Repair what soft tissue structures you can
- Close skin strategically/wound vac?
- Serial debridement as needed especially for blast injuries and high velocity GSW.
- Transfer when stable



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