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# DUPUYTRENS DISEASE

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# NON OPERATIVE TREATMENTS

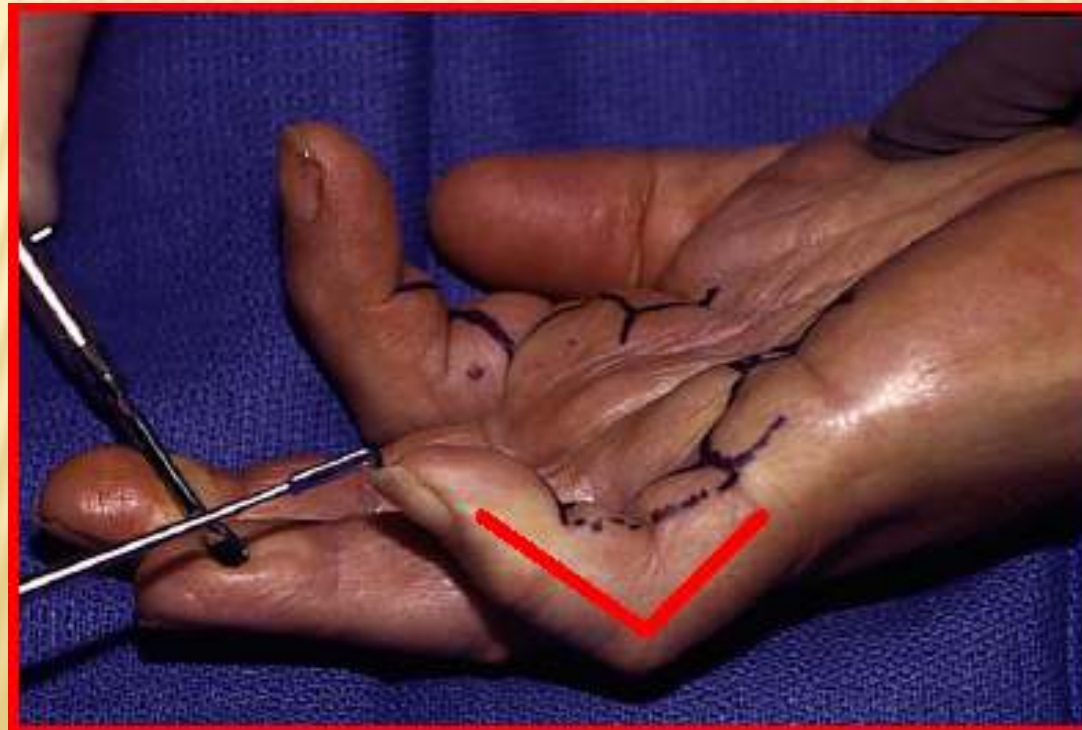
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- ✘ Physical Agents
  - ✘ Stretching
  - ✘ Splinting\*
  - ✘ Radiation
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- ✘ Evidence based?



# OPERATIVE INDICATIONS

- “Table Top” Test
- MCPJ  $>$  30 degrees
- PIPJ - any contracture



# SURGICAL OPTIONS

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- Fasciotomy – percutaneous needle
- Segmental Fasciectomy
- Fasciectomy
- Radical Fasciectomy
- ✘ Open palm technique of McCash



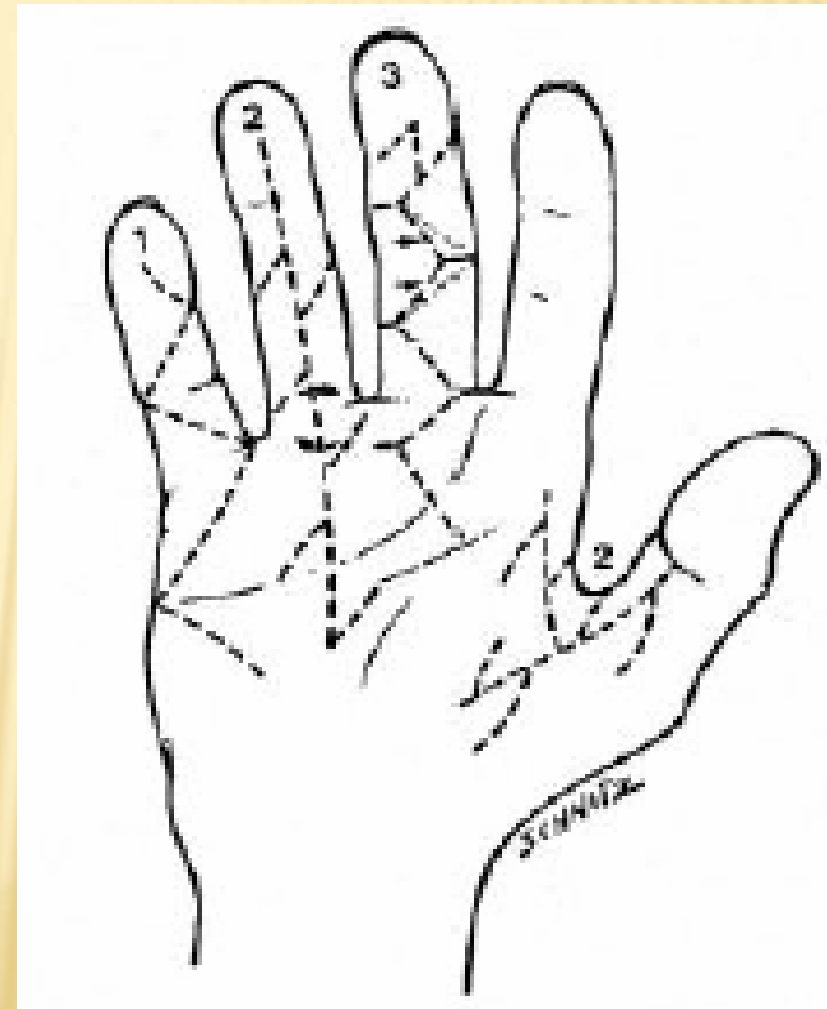
# PERCUTANEOUS NEEDLE FASCIOTOMY

- ✘ Mainly for Palmar disease affecting MP joint
- ✘ Good short term outcome
- ✘ High complication rate distal to MP joint.



# INCISIONS

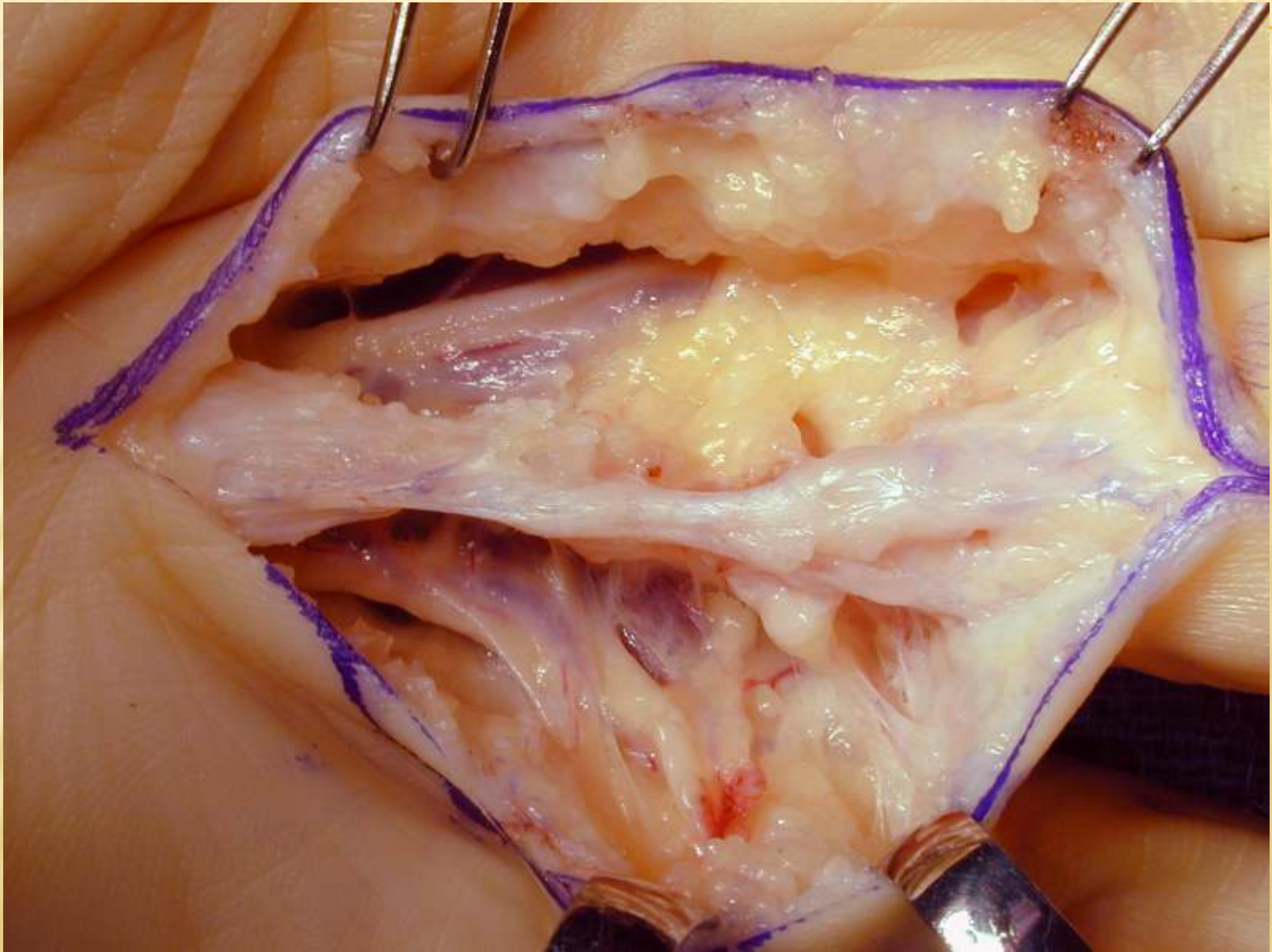
- × **1**-Brunner (zig-zag)
- × **2**-Skoog (straight line with Z-plasty)
- × **3**-Zig-zag with V-Y extension











# WOUND CLOSURE

- ✘ Direct closure with Z-plasty
- ✘ Open palm technique
- ✘ Skin graft



# RATIONALE FOR NO TENSION TECHNIQUE

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- ✘ Mechanical stress on digital vessel and nerve may contribute to local hypoxia and inflammation
- ✘ Tissue anoxia may contribute to free radical release and adverse cellular response.
- ✘ Hypertrophic scar will form in lines of tension

# OUTCOMES

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## PRIMARY DISEASE

Early:

- Wound healing / infection – 10%
- Neuropraxia – 8%
- Swelling / haematoma
- Pain
- Ischaemia

# OUTCOMES

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## PRIMARY DISEASE

Medium / Late:

- Recurrence
- Stiffness
- CRPS
- Numbness
- Amputation

# OUTCOMES

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## RECURRENCE:

- Less common at MCPJ
  - 80% remain straight at 40 months
- PIPJ recurrence frequent
  - 60% show some recurrence at 40 months

# OUTCOMES

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## RECURRENCE:

### Factors influencing

- Full correction on table
- Degree of contracture pre op

These do not effect the overall rate of complications which is around 30%

# OUTCOMES

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## RECURRENT DISEASE

Early:

- Wound healing / infection – 20%
- Neuropraxia – 16%
- Swelling / haematoma
- Pain
- Ischaemia



# OUTCOMES

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## RECURRENT DISEASE

Medium / Late:

- Recurrence
- Stiffness
- CRPS
- Numbness
- Amputation

# OUTCOMES

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## RECURRENCE:

- MCPJ
  - 50% remain straight at 3 years
- PIPJ
  - 62% show some recurrence at 40 months  
(20% worse than before)

# OUTCOMES

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## RECURRENCE:

### Factors influencing

- Degree of contracture pre op (>60 deg)  
(Full correction on table or skin graft did not effect outcome)

The overall rate of complications is around 40%

# POSTOPERATIVE MANAGEMENT

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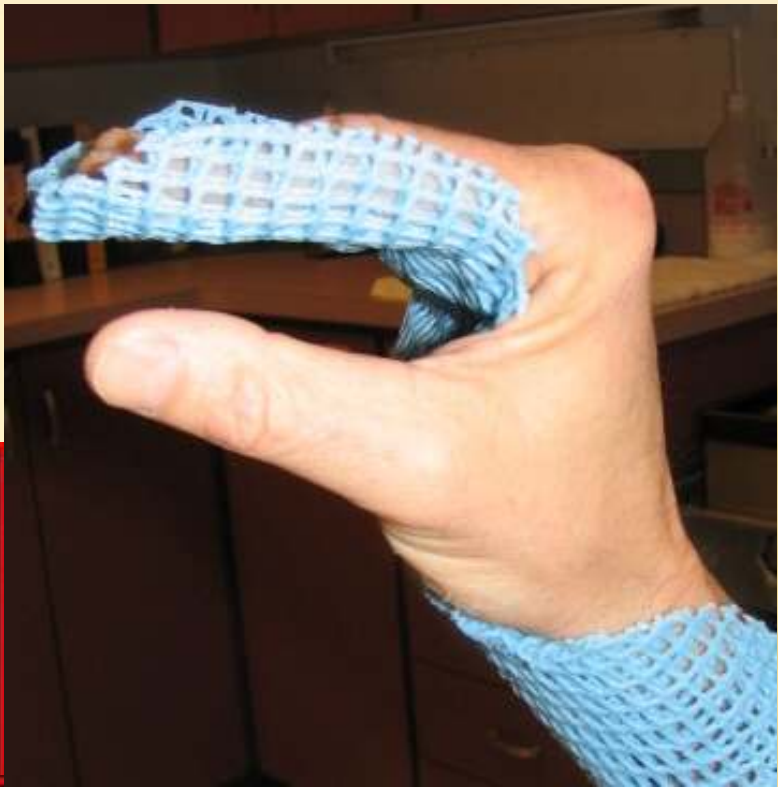
- × Handtherapy
- × *Postoperative swelling*
- × *Wound healing*
- × *Scar formation*
- × *Restricted finger movements*
- × *Compromised function with activities of daily living (ADL)*

# POST-OP REHABILITATION

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## Goals:

- ✘ *Maintain the contracture correction (gains in extension)*
- ✘ *Restore finger flexion*
- ✘ *Promote wound healing*
- ✘ *Scar management*
- ✘ *Facilitate resolution of swelling*
- ✘ *Address complications promptly*



# POST-OP EXERCISES

**Exercises;**

***Composite flexion/extension***

***Blocked PIP, DIP flexion, & extension***

***Differential tendon gliding (EDC)***

***Finger abduction/adduction***

***ORL stretch***

***Wrist AROM***

***Thumb AROM***



**THANK YOU**

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