TOE TRANSFER

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Principles of thumb reconstruction:

-Length (functional and principal)

-Sensibility

-Stability

-Mobility

Indications:

- Congenital
- Trauma: Emergency or elective

Preoperative:

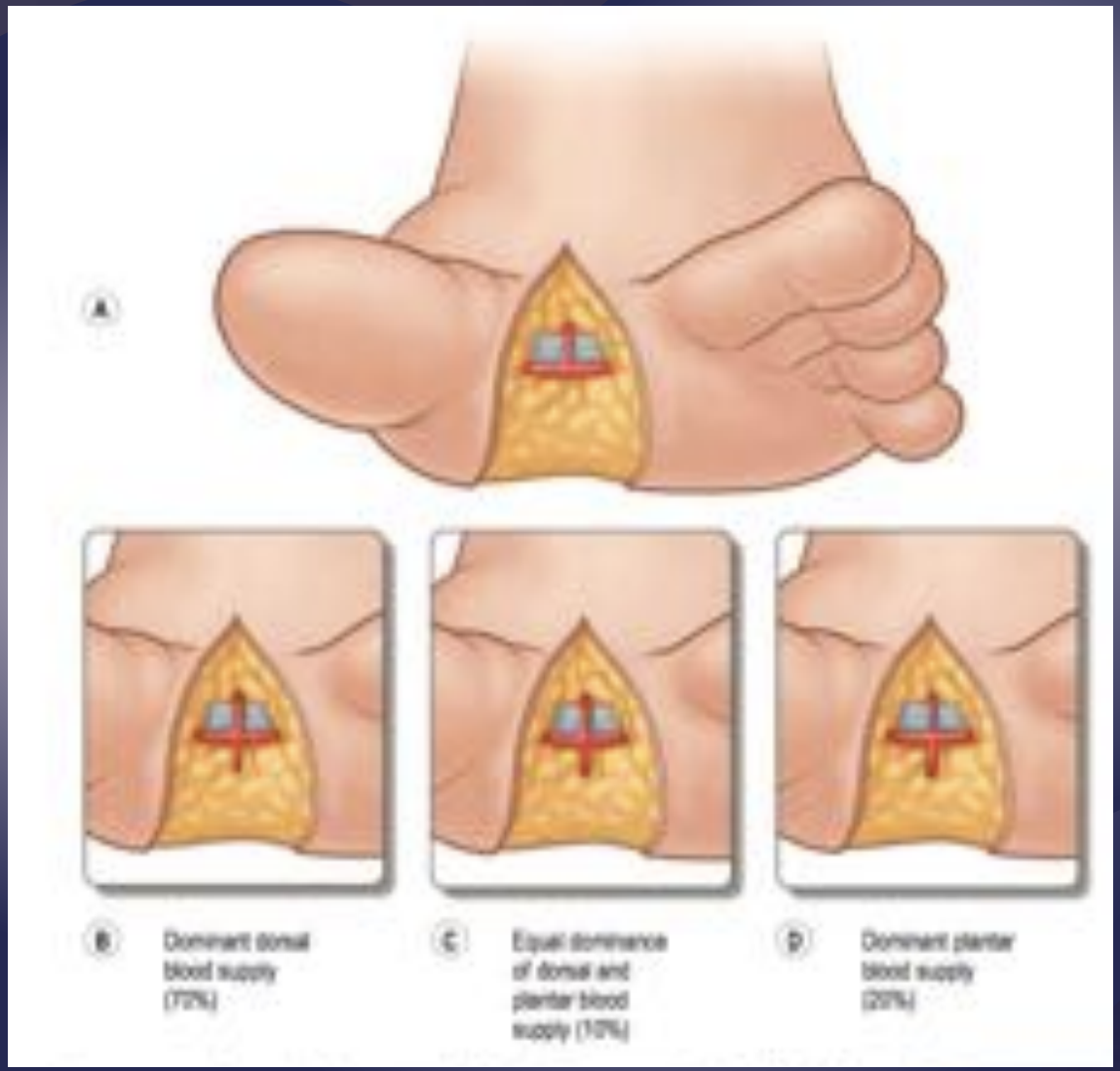
- According to microvascular principles
- Age
- Occupation
- Hand Dominance
- Donor area concerns
- Doppler and clinical assessment

Types of toe transfer:

- Great toe
- 2nd toe
- 2nd and 3rd toe
- Trimmed toe
- Wrap around toe
- Web space
- Pulp transfer

ANATOMY OF FOOT:

FDMA Classification: Gilbert /May



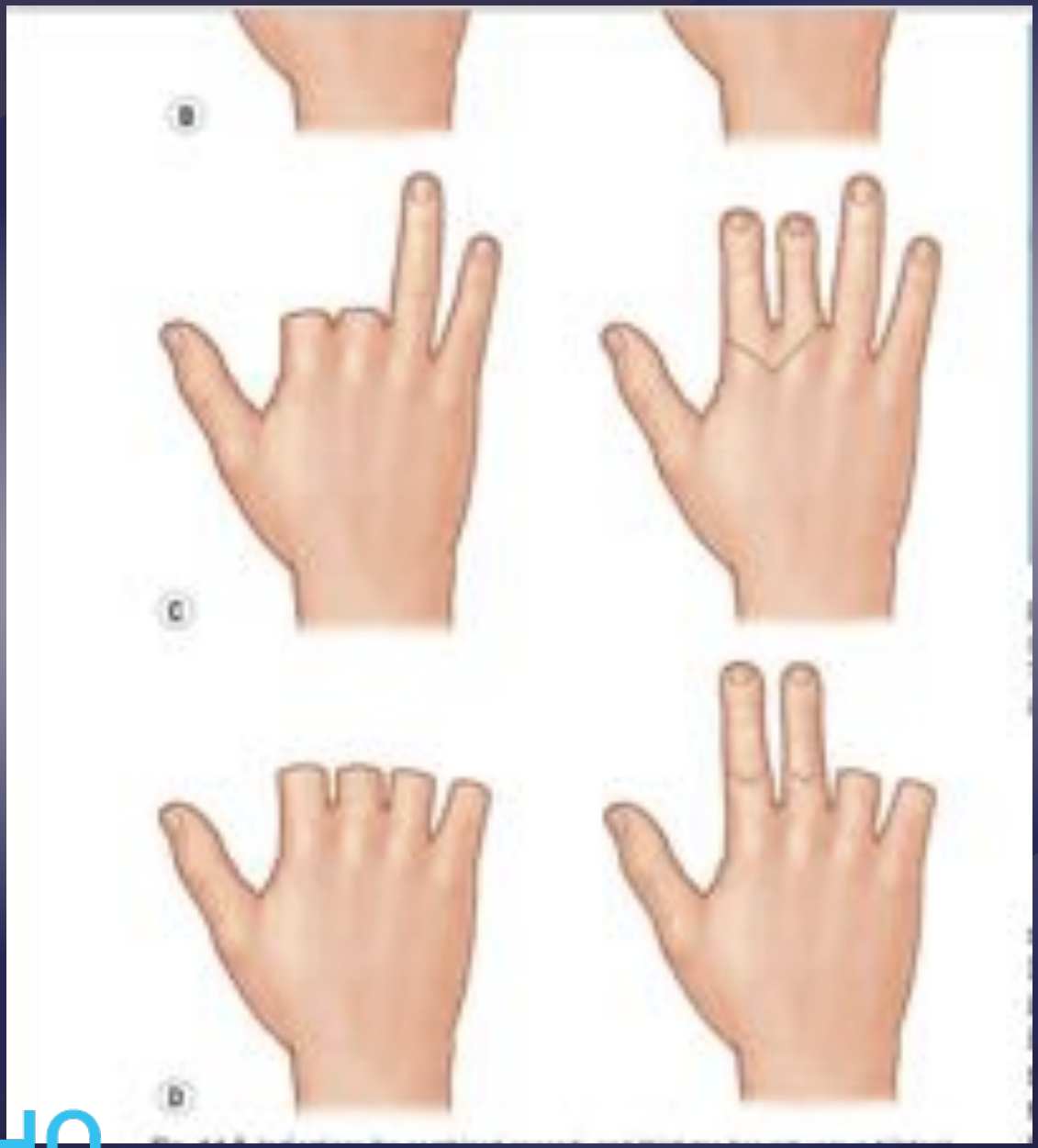
Metacarpal hand

Table 14.1 Metacarpal hand classification for type I defects

Subtype	Thumb amputation levels	Finger amputation levels
IA	Amputation distal to the interphalangeal joint	Distal to the level of metacarpophalangeal joint
IB		At the level of the metacarpophalangeal joint
IC		Proximal to the level of the metacarpophalangeal joint

Table 14.2 Metacarpal hand type II defects and proposed reconstruction algorithm

Subtype	Thumb amputation level	Reconstructive options	Stage
IIA	Distal to the metacarpal neck	Whole or trimmed great toe	Simultaneous
IIB	Proximal to the metacarpal neck with adequate thenar muscle function	Whole or trimmed great toe ± lengthening or bone augmentation Transmetatarsal second-toe transfer	Simultaneous
IIC	Any level with inadequate thenar musculature	Same as in IIA or IIB Opponensplasty	Staged
IID	Any level with damaged carpometacarpal joint	Same as in IIA or IIB Immobile thumb post	Staged



WRAP AROUND TOE

- Morrison et al
- Thumb reconstruction
- Single stage
- Proximal stump present
- Amputation at or distal to MPJ
- Iliac crest bone graft + toe soft tissue

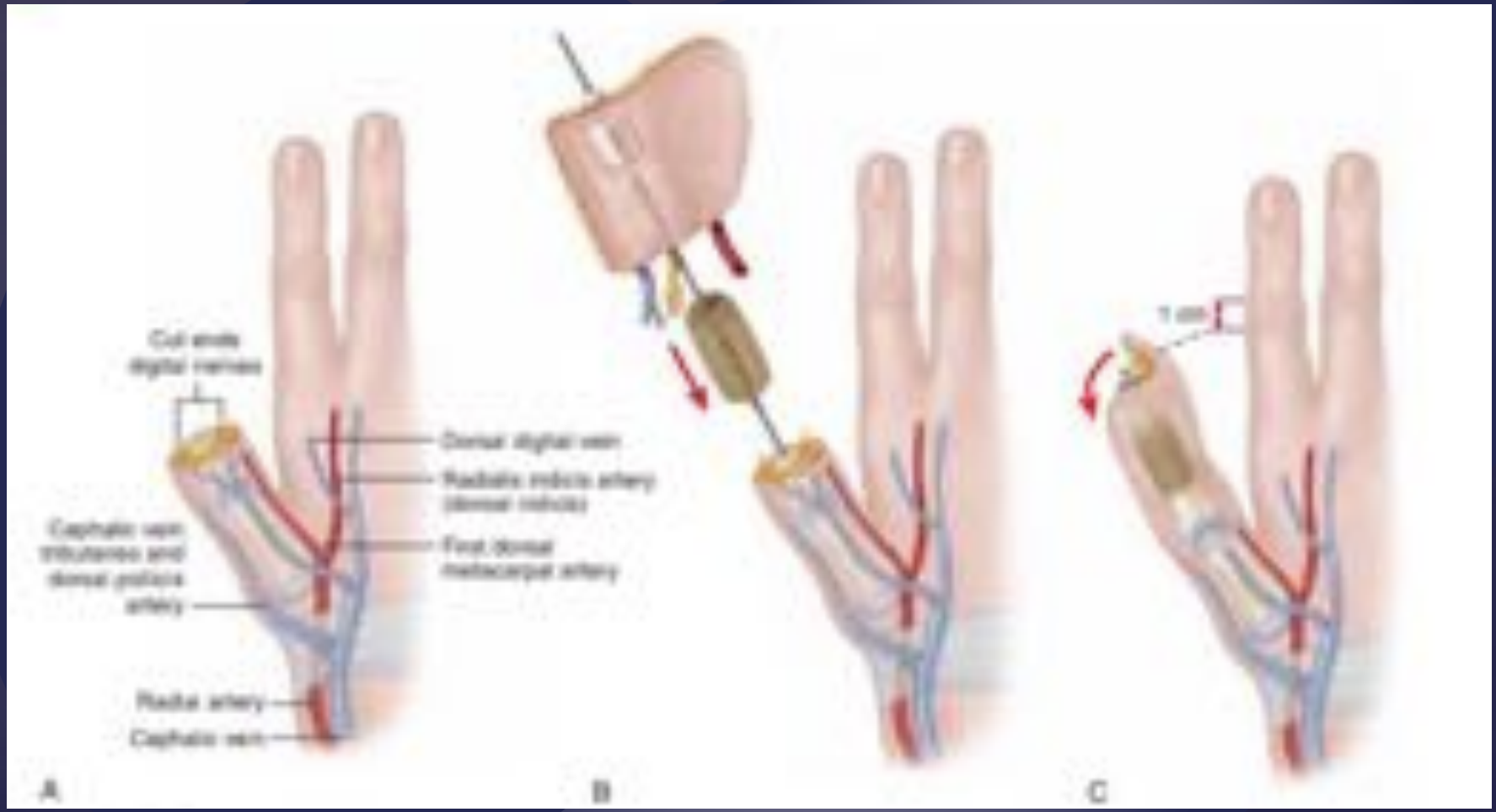
Planning:

Leave 1cm Medial strip

Tendons not harvested

MPJ Distal : Parellel

At or Proximal: 30 flexion
: 45 internal R



ADVANTAGES:

- Single stage
- Soft tissue cover
- Less donor deformity

DISADVANTAGES:

- No IP function
- Tedious dissection
- Additional bone graft
- High risk of thrombosis

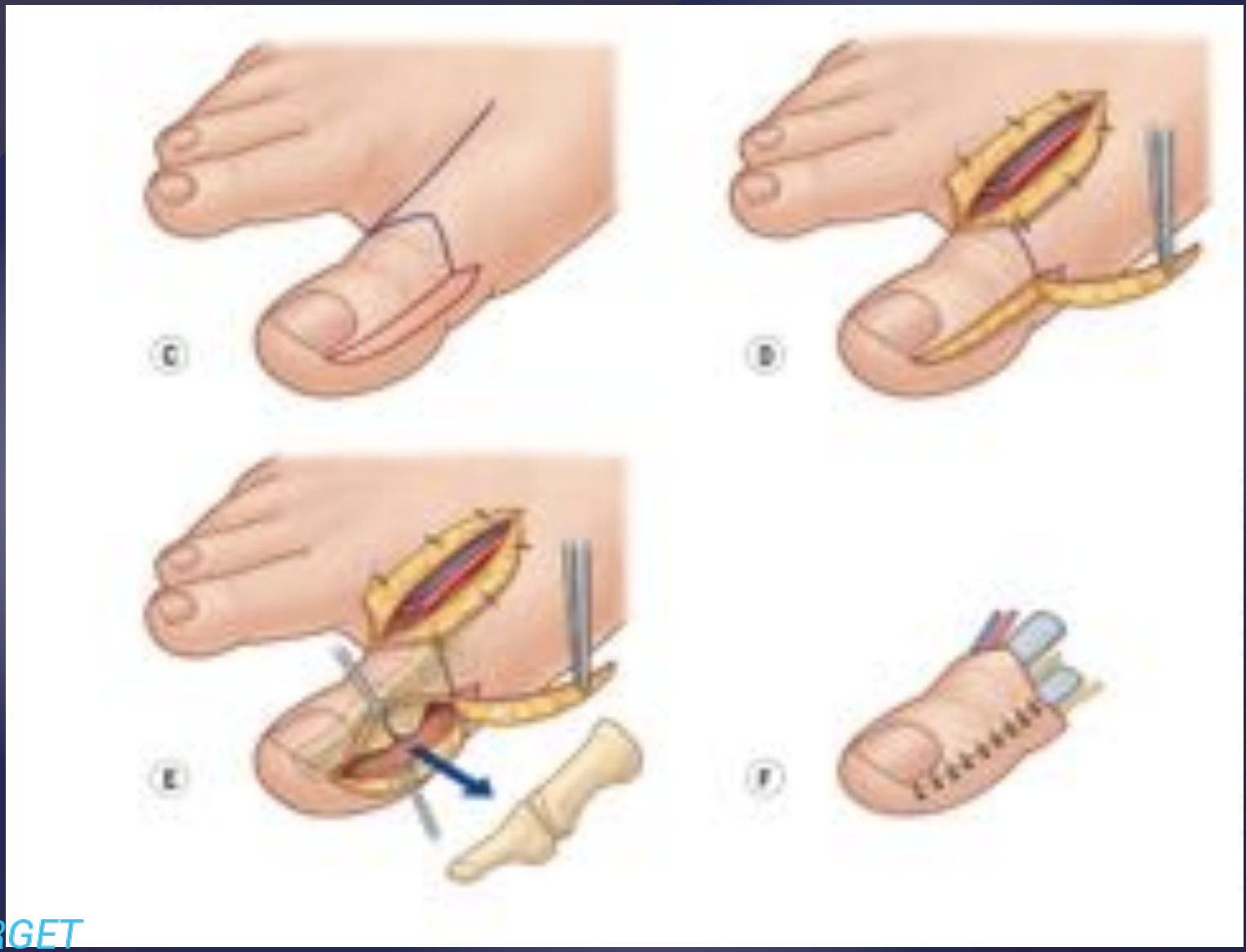
WRAP AROUND FLAP

GREAT TOE TRANSFER:

- Entire great toe harvested
- Ipsilateral (Pedicle and web space orientation)
- Always begin dissection in 1st web space and identify draining veins
- Identify major arterial supply
- Divide flexor and extensor tendons at retinaculum

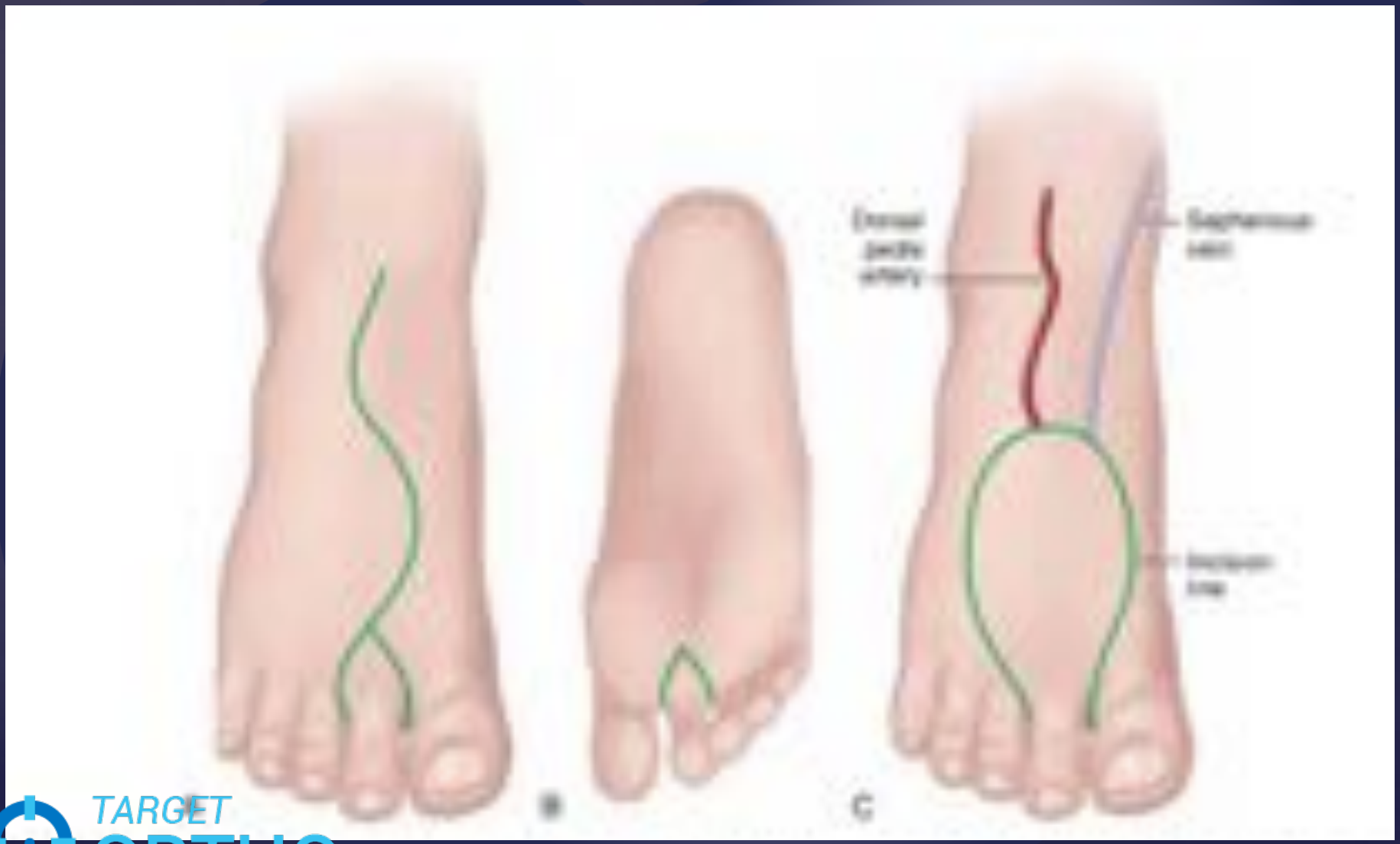
TRIMMED TOE TRANSFER:

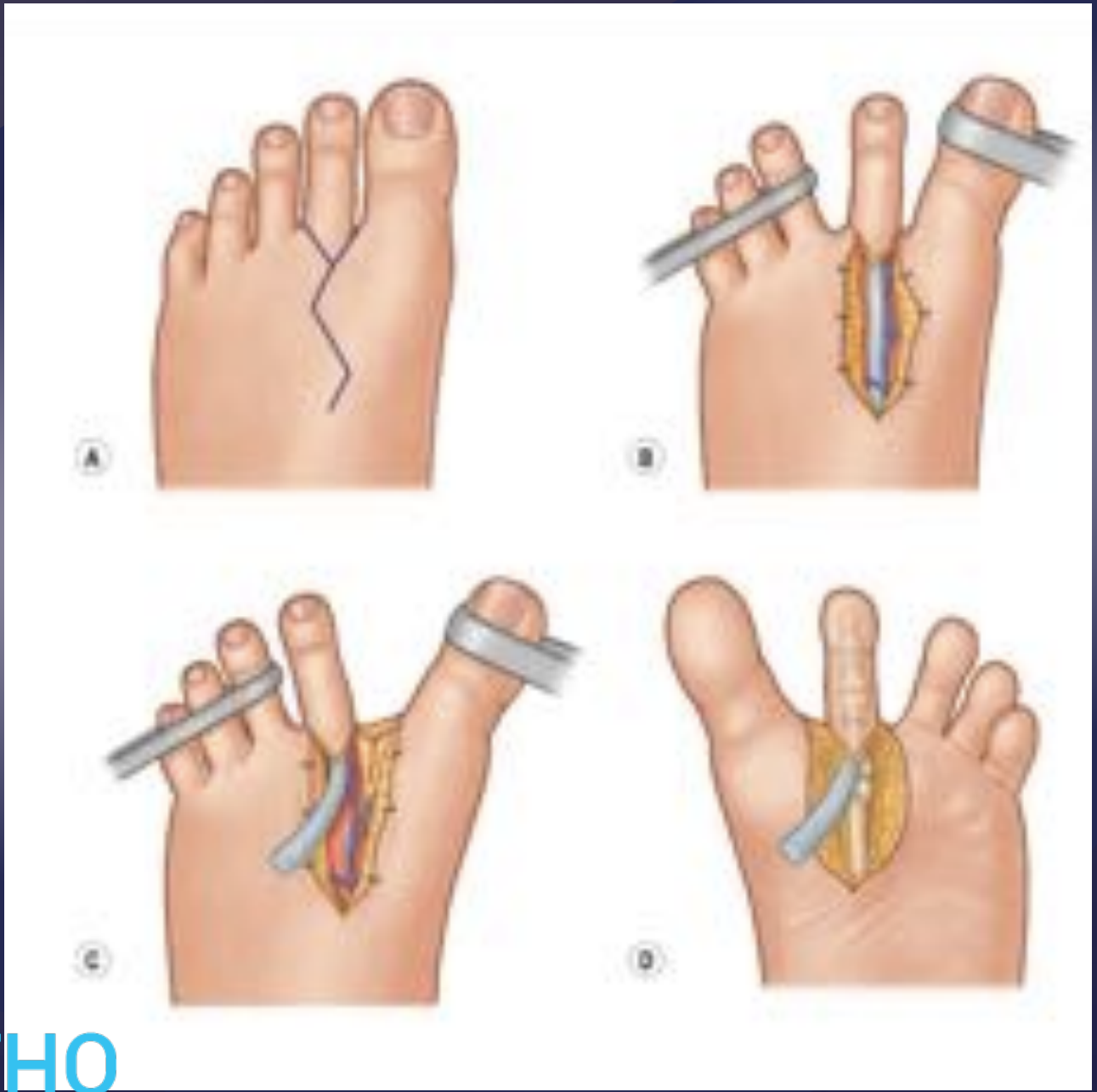
- Prof.Fu Chan Wei
- To solve the issue of a large thumb
- More precise measurments



2nd TOE TRANSFER:

- Contralateral
- Better contour
- Lesser donor site morbidity
- Good mobility





THUMB RECONSTRUCTION

THUMB RECONSTRUCTION

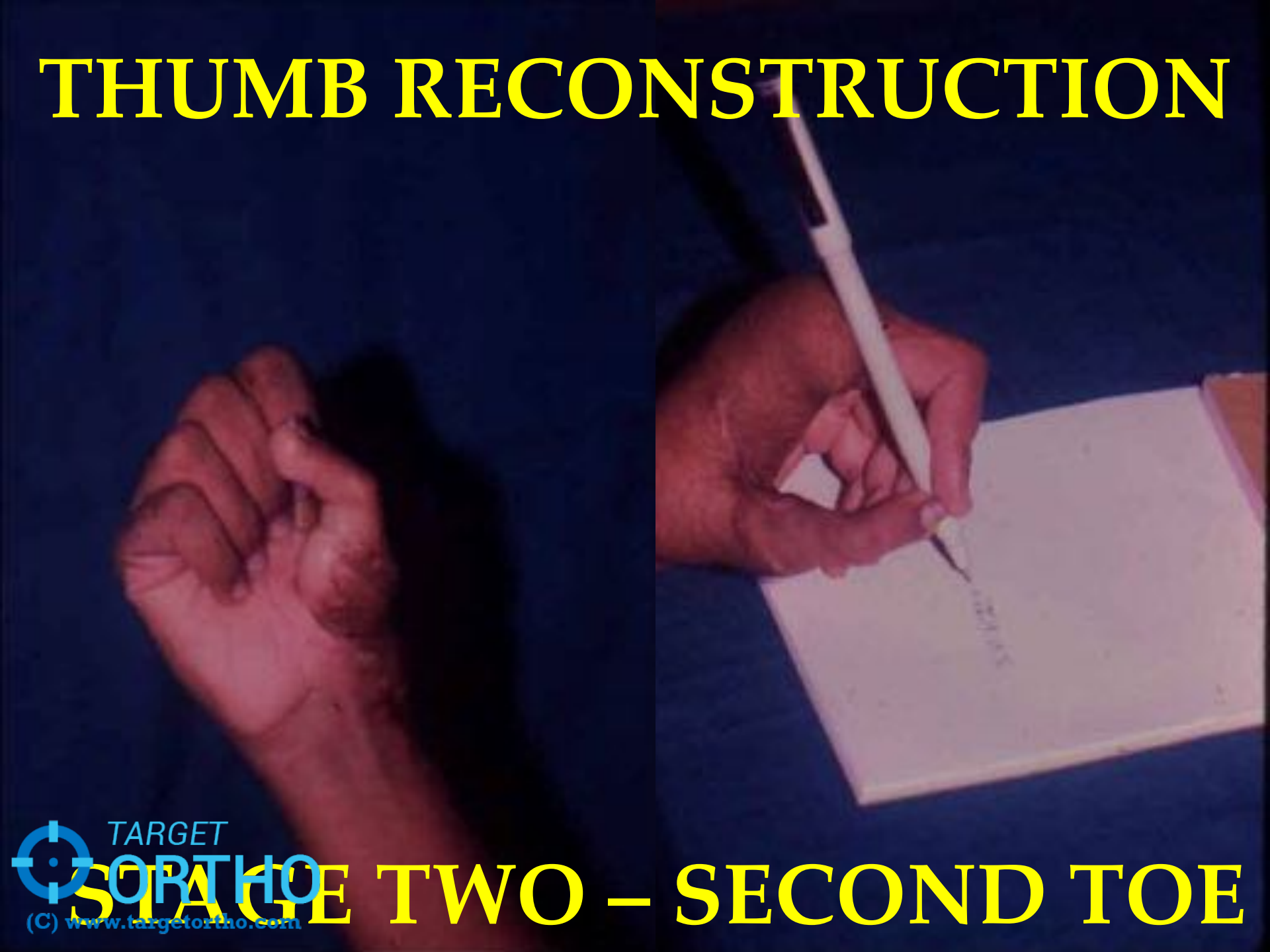
SECOND TOE

THUMB RECONSTRUCTION

TARGET ORTHO

STAGE ONE

THUMB RECONSTRUCTION



STAGE TWO – SECOND TOE

2nd and 3rd TOE TRANSFER:

- WEB SPACE ???
- 2 digits connected by web space or

  2 individual digits???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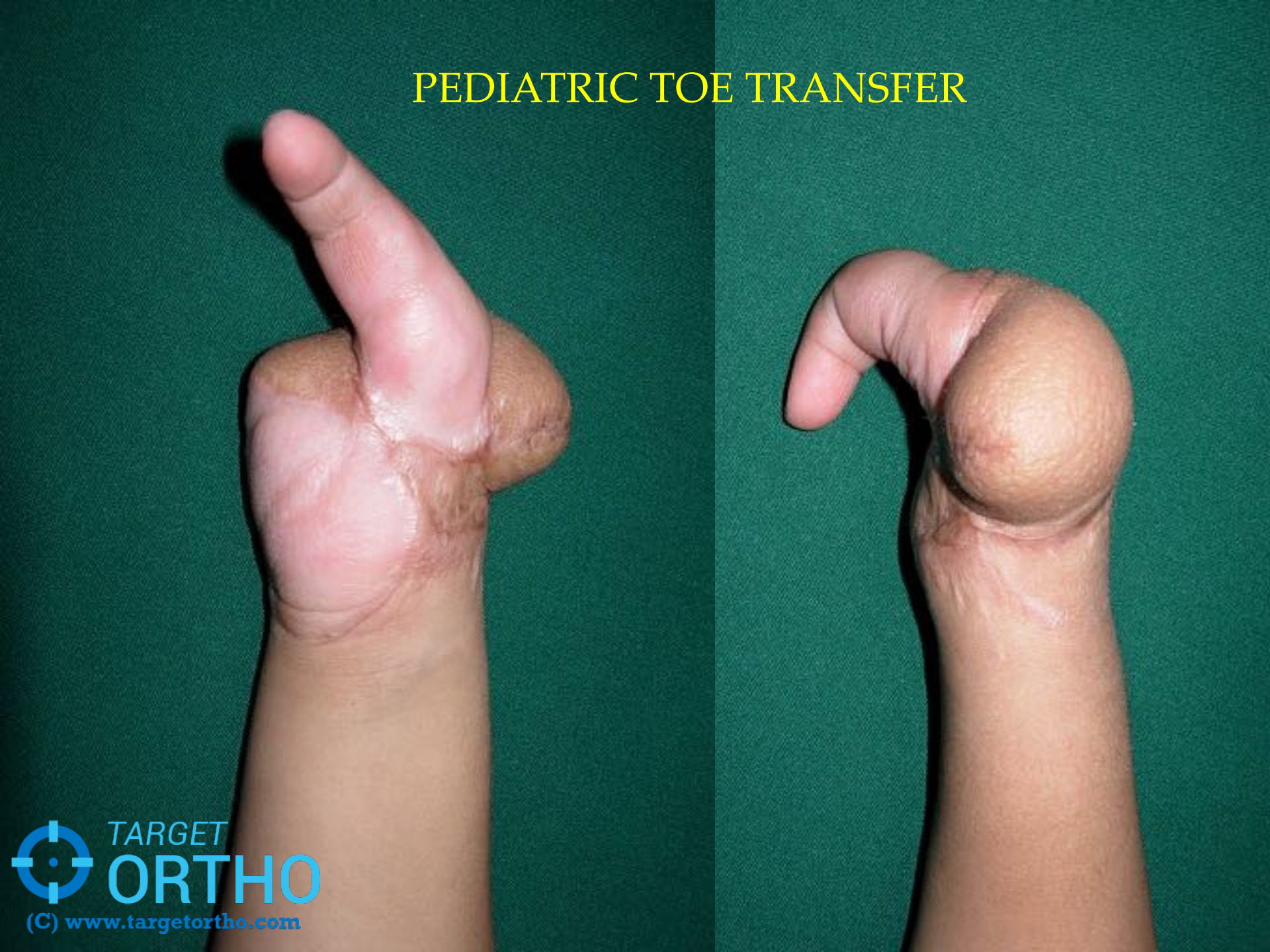
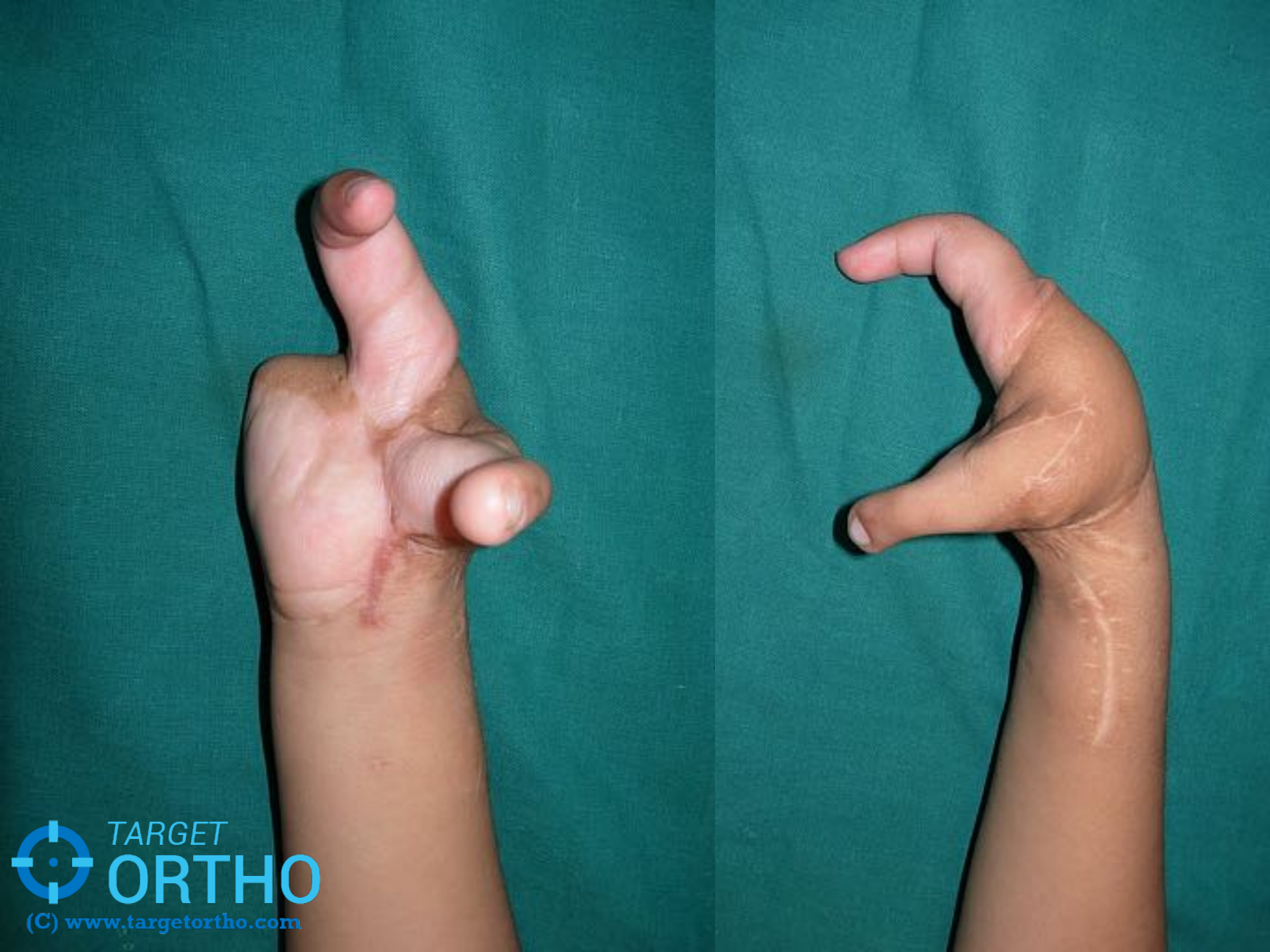
TOE MONITORING

- COLOUR
- PALE TOE – ARTERIAL INSUFFICIENCY
- CONGESTED TOE – VENOUS INSUFFICIENCY
- WATCH FOR HAEMATOMA

- WARMTH
- COMPARE WITH OTHER FINGERS

PEDIATRIC TOE TRANSFER

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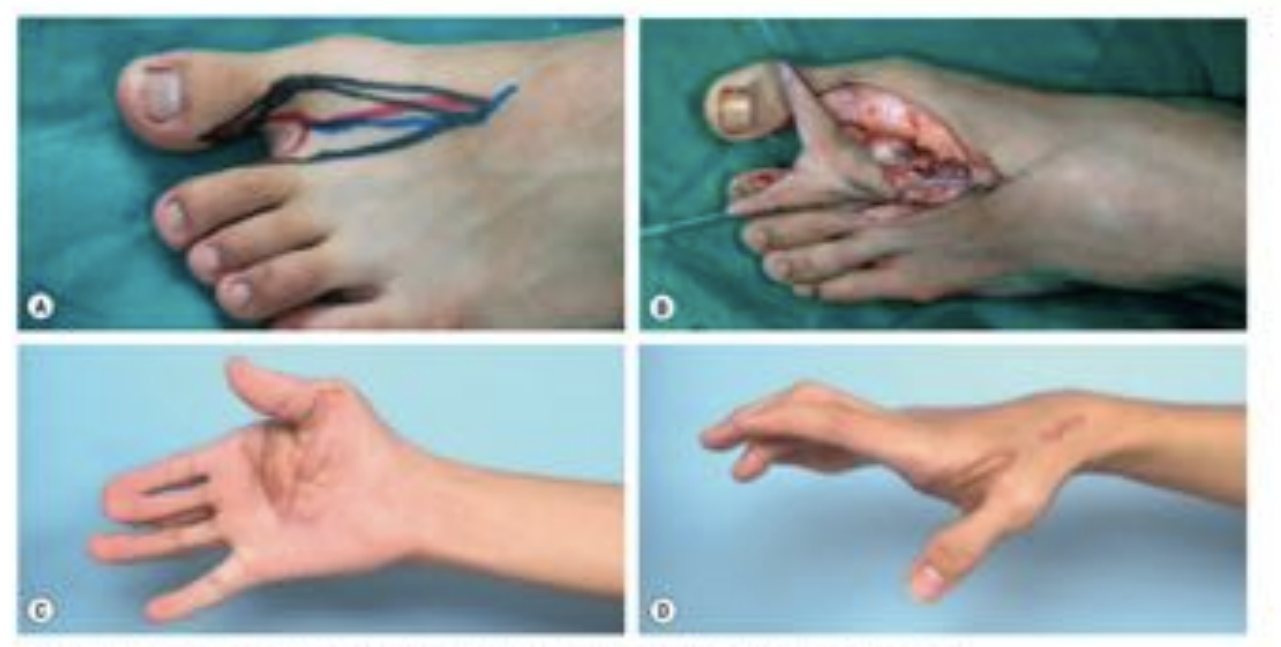
REHABILITATION

- PASSIVE MOBILISATION STARTED FROM 7TH DAY
- ACTIVE MOBILISATION STARTED AFTER 21 DAYS

Dorsalis Pedis Artery flap

WEB SPACE TRANSFER



PULP TRANSFER

THANK YOU!

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Instagram – drps_plastics

Youtube – DrPS