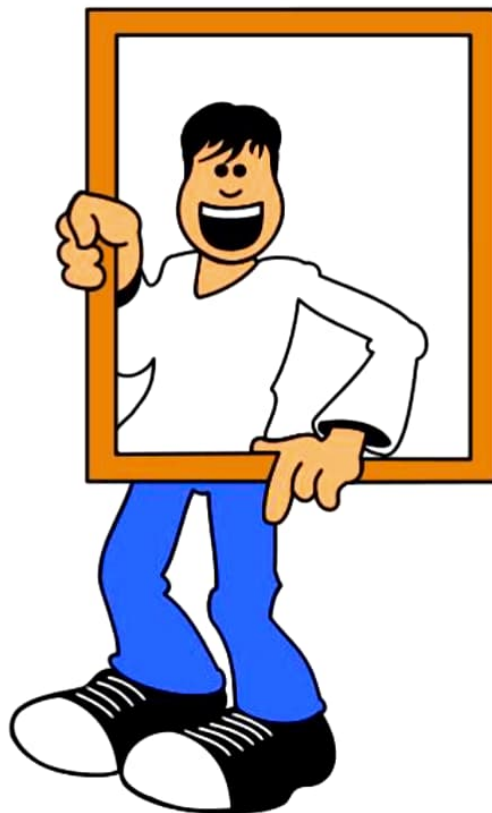


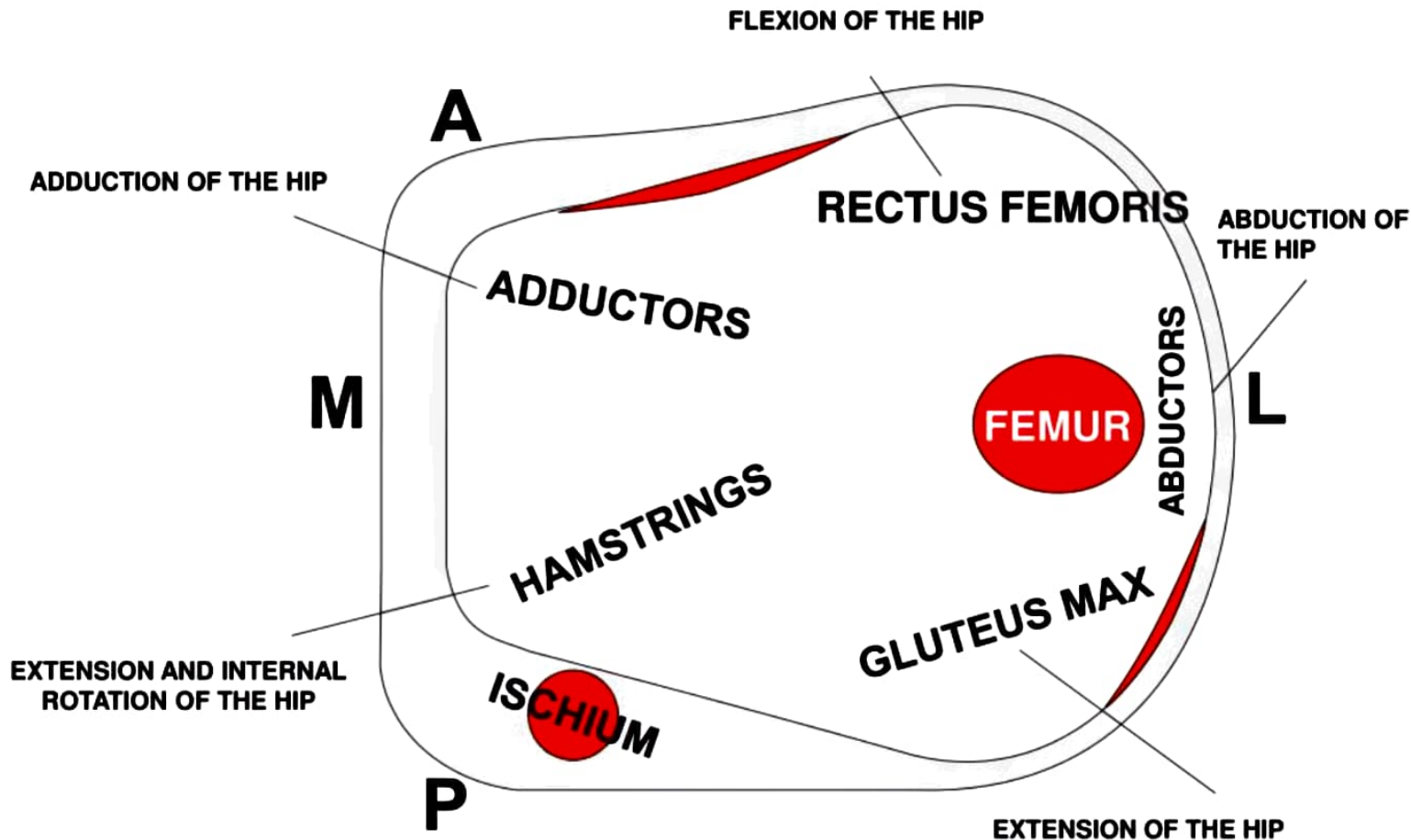


MEASUREMENTS, CASTING & RECTIFICATION FOR TRANS-FEMORAL (TF) QUADRILATERAL SOCKET



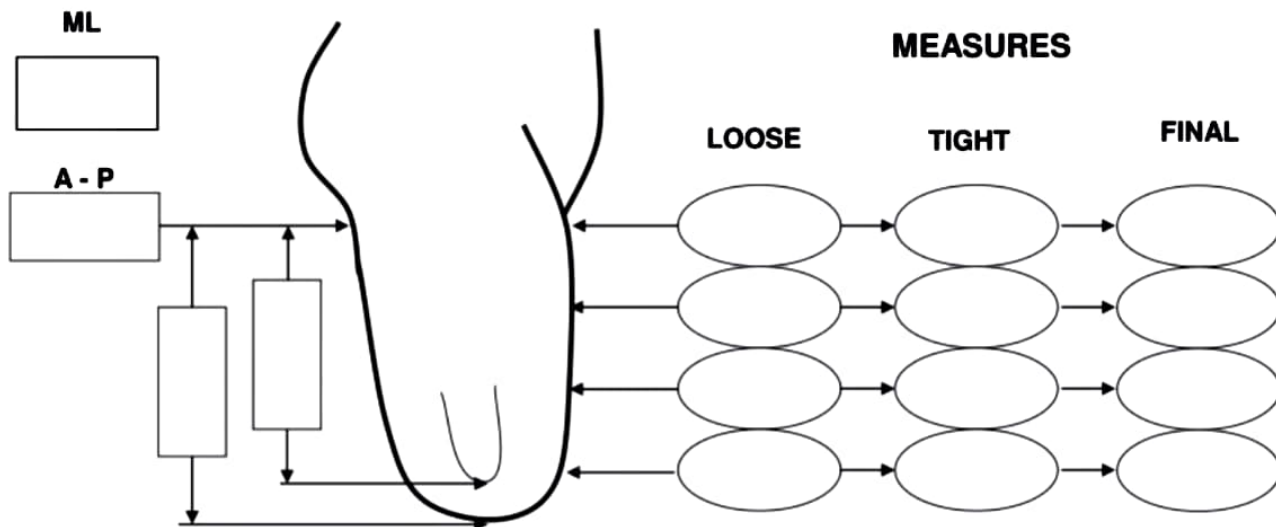


DISTRIBUTION AND FUNCTION OF MUSCLE GROUPS





TRANS-FEMORAL MEASUREMENTS



KNEE HEIGHT

ISCHIAL HEIGHT

FLEXION

ABDUCTION

HEEL HEIGHT

CIRCUMFERENCE CALF

CIRCUMFERENCE ANKLE

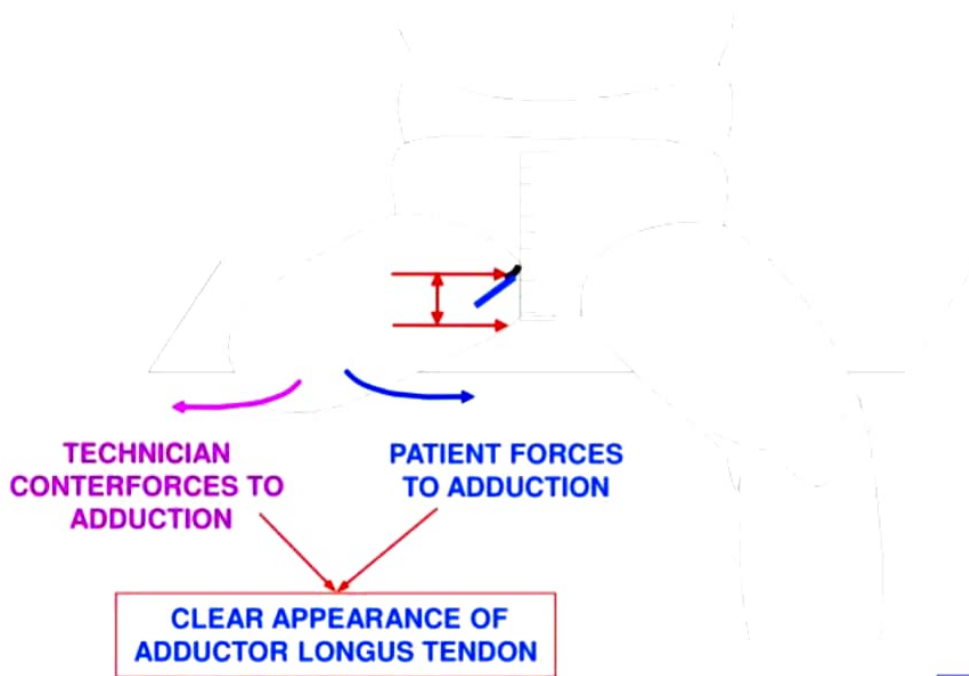
FOOT SIZE

SIDE

R

L

TRANS-FEMORAL MEASUREMENTS



AP MEASURE :
DISTANCE BETWEEN ISCHIUM
AND ADDUCTOR LONGUS TENDON

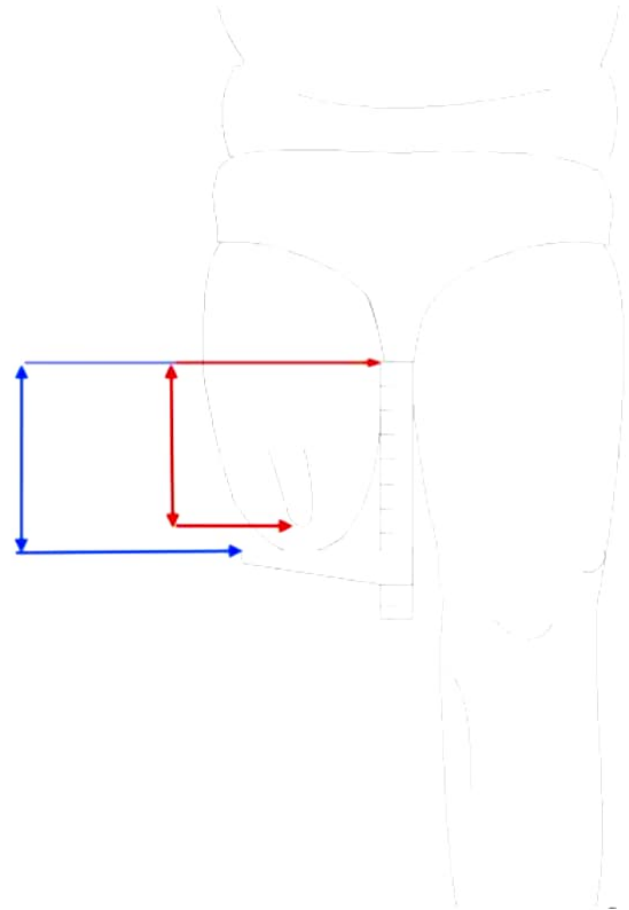


TRANS-FEMORAL MEASUREMENTS

STUMP MEASUREMENTS

LENGTH OF FEMUR

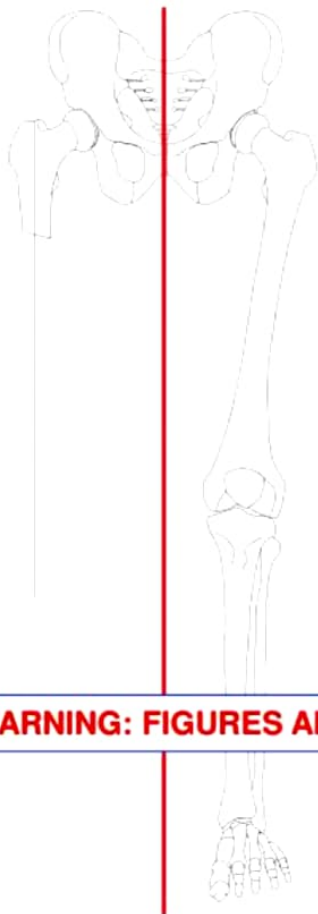
LENGTH OF STUMP



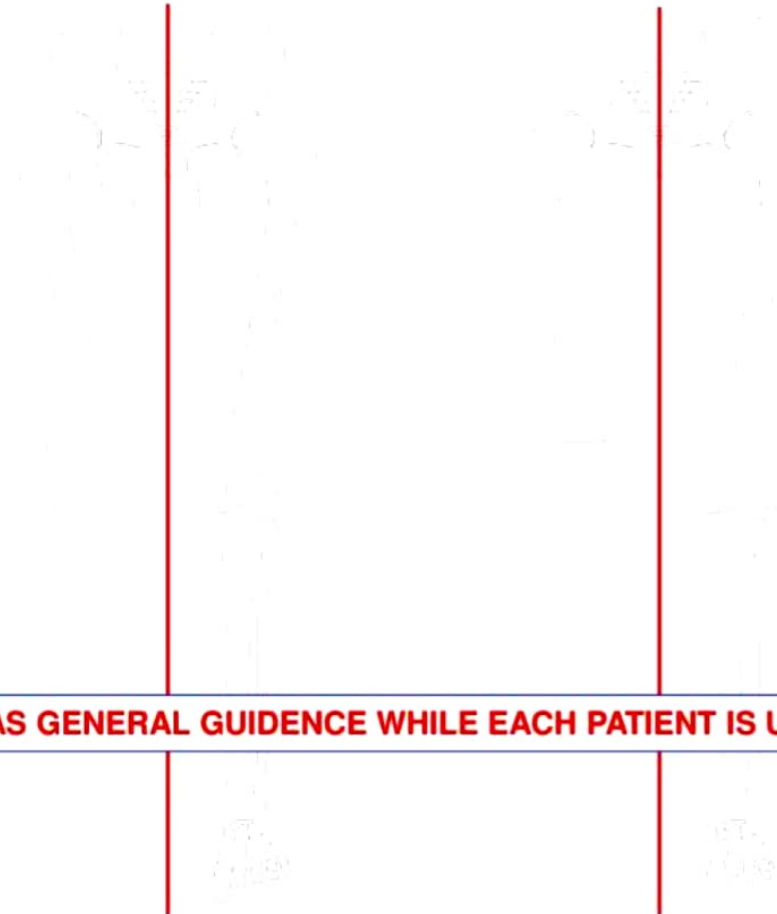
**NB: THESE MEASUREMENTS HAVE
FROM RAMUS AND/OR ISCHIAL
TUBEROSITY**

TF STUMP ABDUCTION-ADDUCTION

SHORT STUMP
ABDUCTION/ADDUCTION = 0°



MEDIUM AND LONG STUMPS
ADDUCTION = 5 - 7°



WARNING: FIGURES ARE GIVEN AS GENERAL GUIDANCE WHILE EACH PATIENT IS UNIQUE !



TF STUMP FLEXION

SHORT STUMP



FLEXION = 7-10°

MEDIUM STUMP



FLEXION = 3- 5°

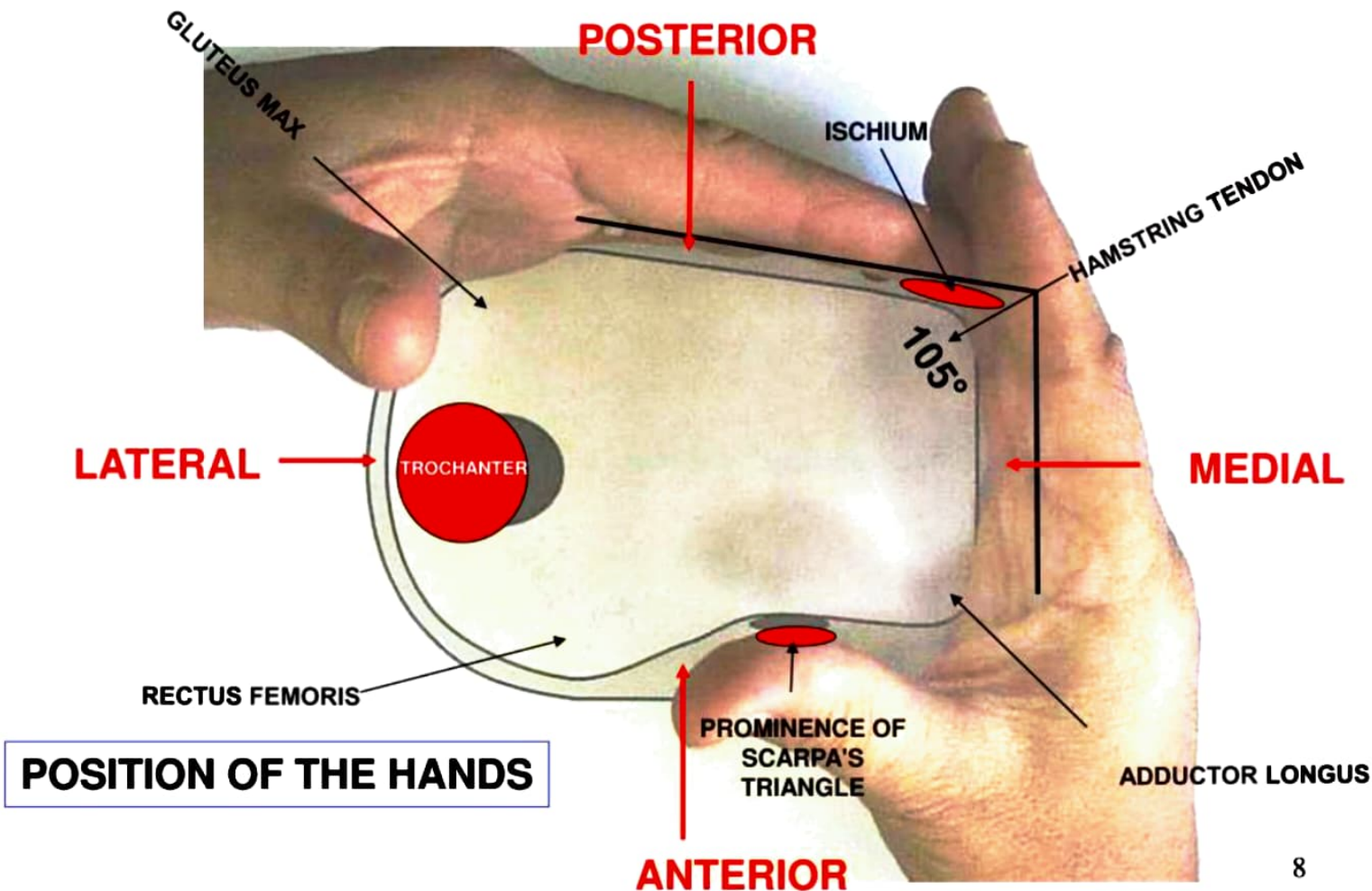
LONG STUMP



FLEXION = 0- 3°

WARNING: FIGURES ARE GIVEN AS GENERAL GUIDENCE WHILE EACH PATIENT IS UNIQUE !

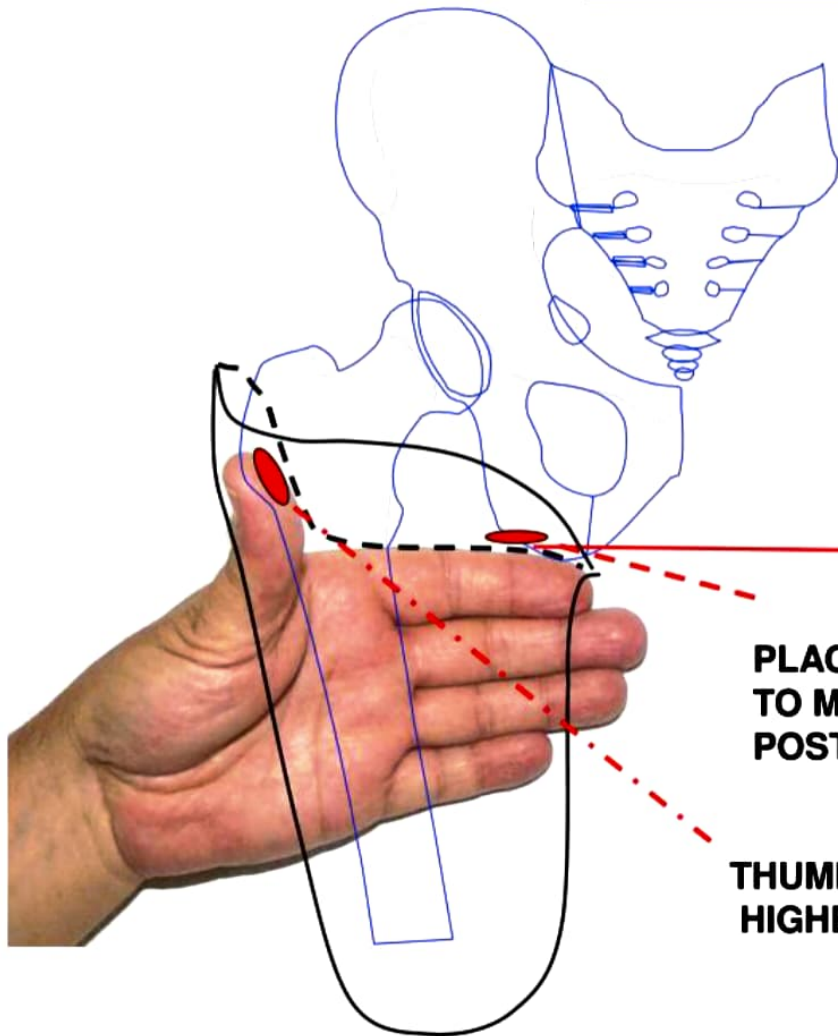
CASTING TF QUADRILATERAL



CASTING TF QUADRILATERAL

POSITION OF THE HANDS

FRONT VIEW



HORIZONTAL

**PLACE FOREFINGER HORIZONTALLY
TO MARK THE ISCHIAL SEAT AND
POSTERIOR SHELF**

**THUMB PRESSES BEHIND AND SLIGHTLY
HIGHER THAN THE TROCHANTER**

CASTING TF QUADRILATERAL

POSITION OF THE HANDS

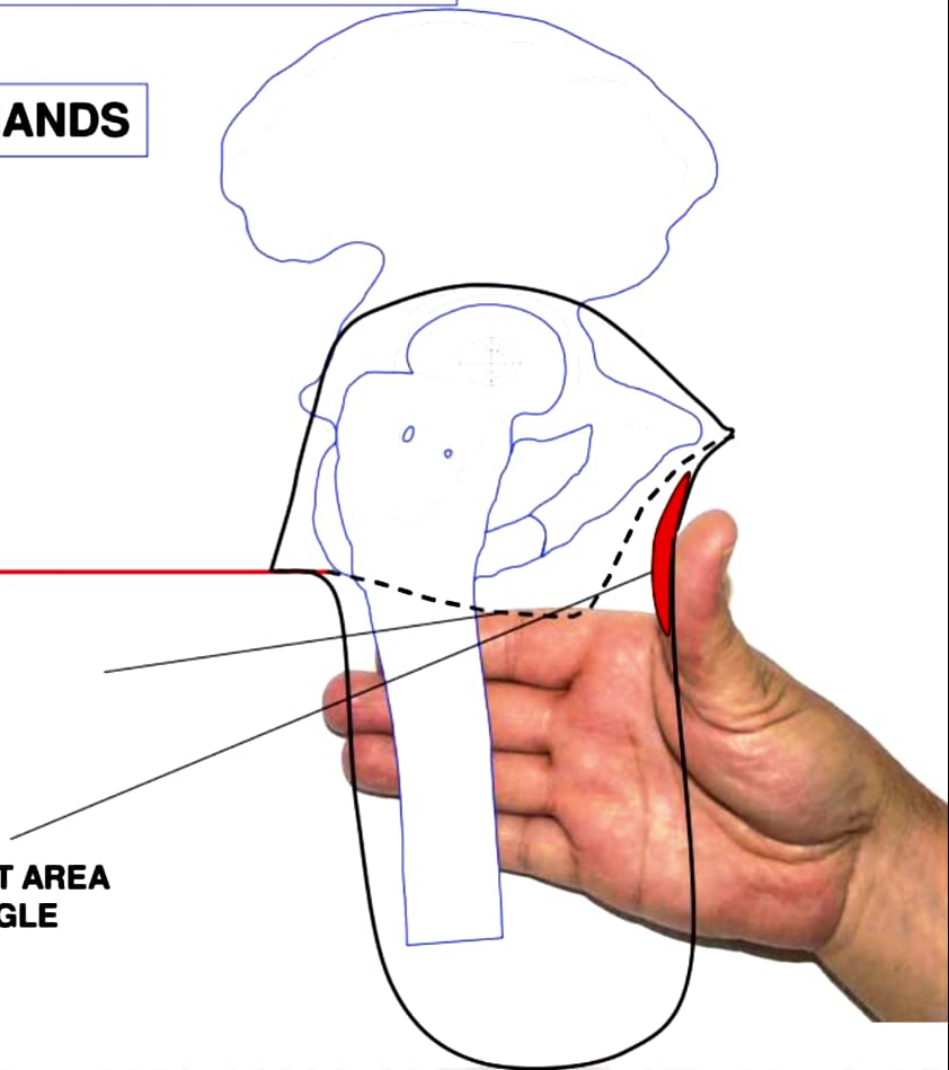
LATERAL VIEW

HORIZONTAL

**PLACE FOREFINGER HORIZONTALLY
TO MARK LEVEL OF MEDIAL SHELF**

**(To be reshaped on the mould;
see TF rectification medial view)**

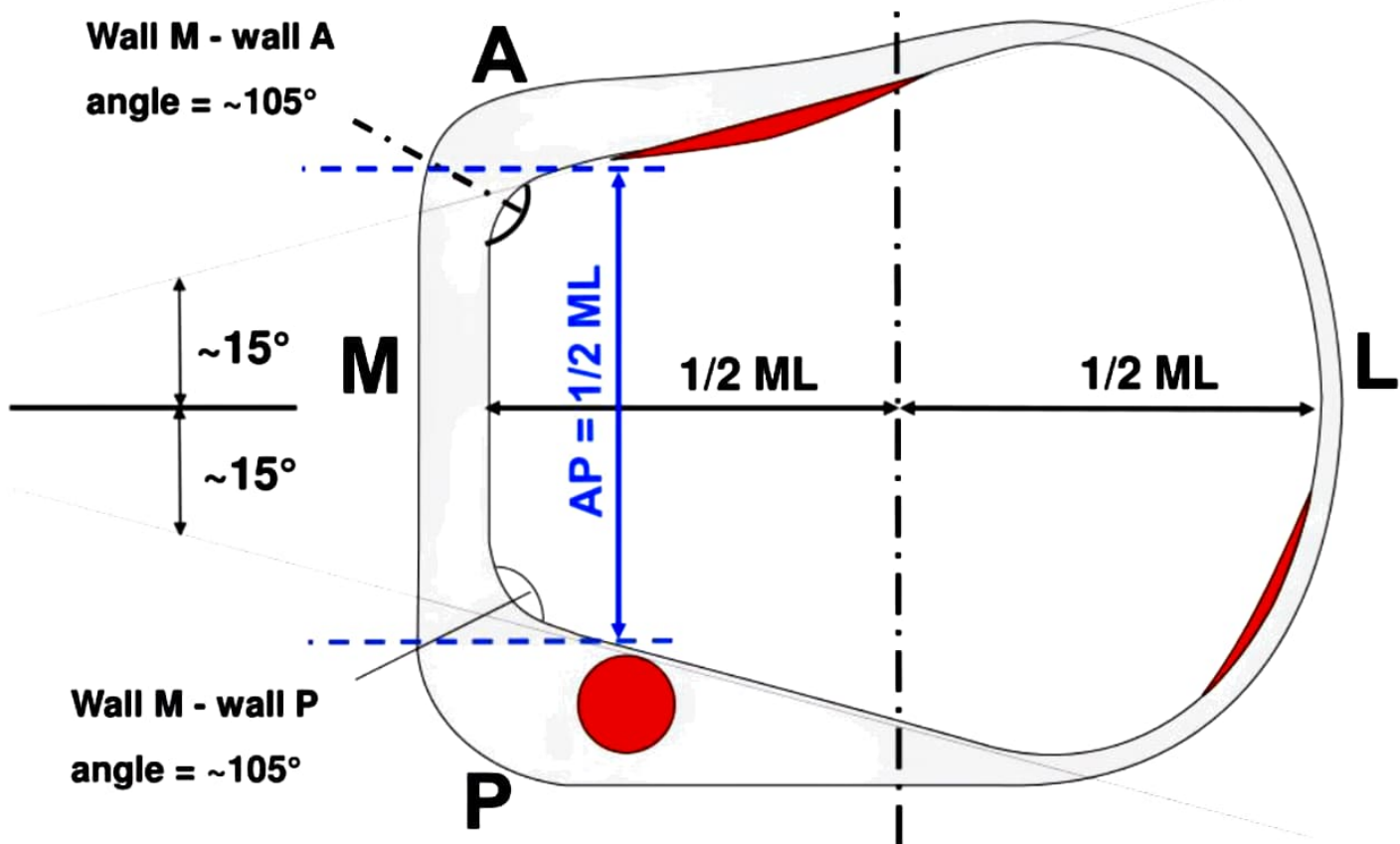
**THUMB PRESSES AT DEEPEST AREA
OF SCARPA'S TRIANGLE**



TOP VIEW OF NEGATIVE CAST

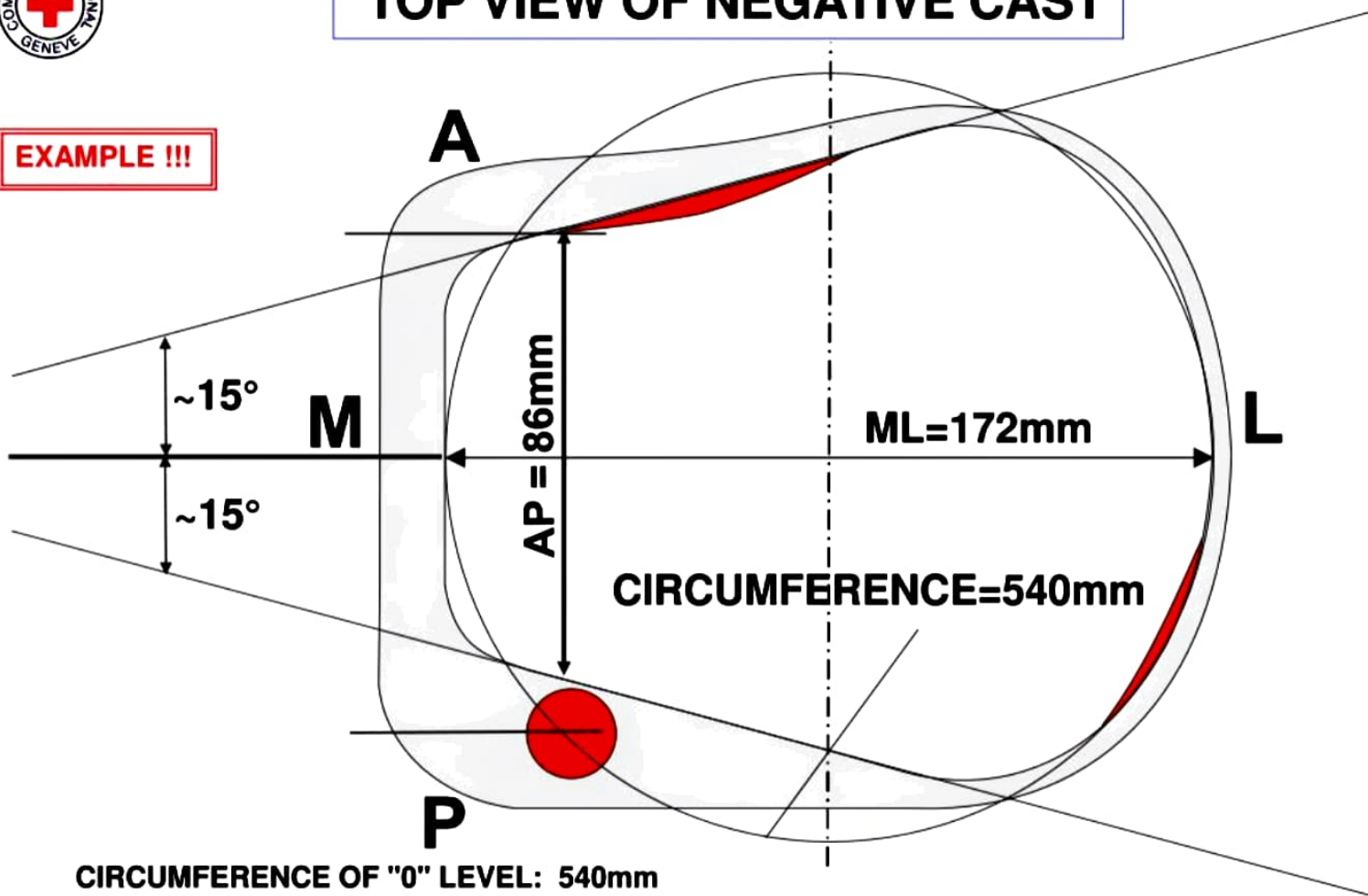
ML distance = Divide the stump circumference of "0" level by 3.14 .

AP distance= Divide ML by 2 (AP distance to be measured from ischial seat to adductor longus canal



TOP VIEW OF NEGATIVE CAST

EXAMPLE !!!



CIRCUMFERENCE OF "0" LEVEL: 540mm

ML DISTANCE: $540 / 3.14 = 172\text{mm}$

AP DISTANCE: $172 / 2 = 86\text{mm}$



SUPERIOR VIEW OF NEGATIVE CAST

PROMINENCE OF SCARPA'S TRIANGLE
OPPOSITE ISCHIAL SEAT = $\frac{1}{3}$ ML

CANAL FOR
ADDUCTOR LONGUS

~25mm

M

L

$\frac{1}{3}$

$\frac{1}{3}$

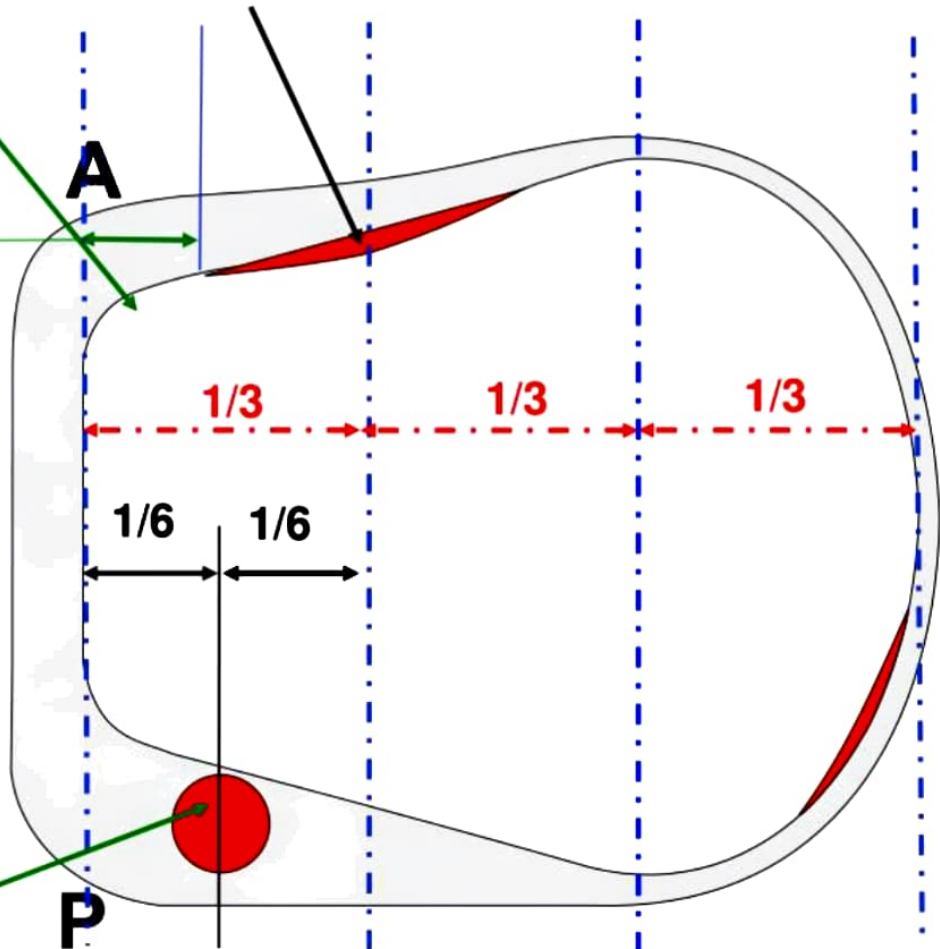
$\frac{1}{3}$

$\frac{1}{6}$

$\frac{1}{6}$

P

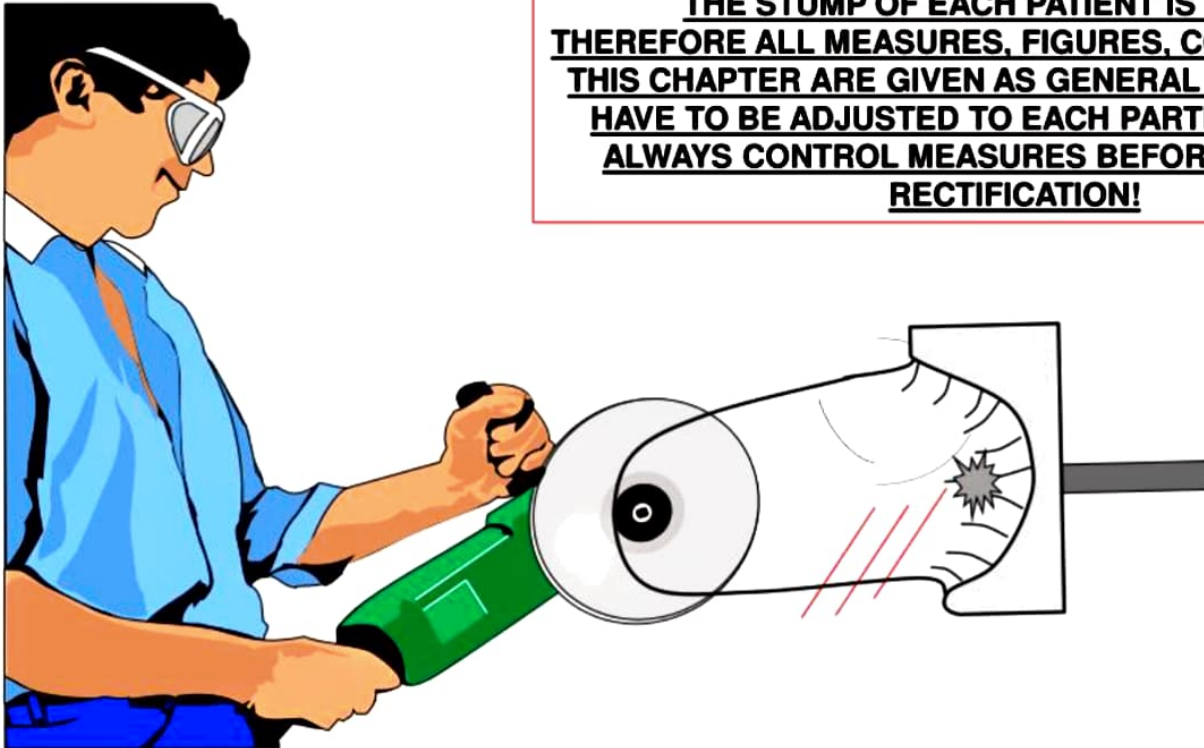
ISCHIAL SEAT = $\frac{1}{6}$ ML



TRANS-FEMORAL (TF) RECTIFICATION

WARNING!!!

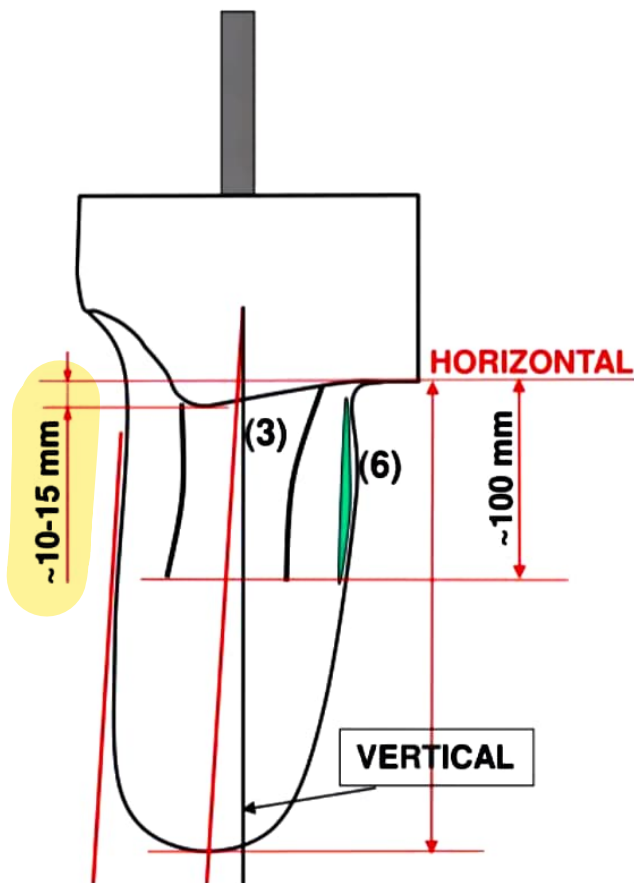
THE STUMP OF EACH PATIENT IS UNIQUE.
THEREFORE ALL MEASURES, FIGURES, COMMENTS ETC IN
THIS CHAPTER ARE GIVEN AS GENERAL GUIDENCE AND
HAVE TO BE ADJUSTED TO EACH PARTICULAR CASE.
ALWAYS CONTROL MEASURES BEFORE AND AFTER
RECTIFICATION!



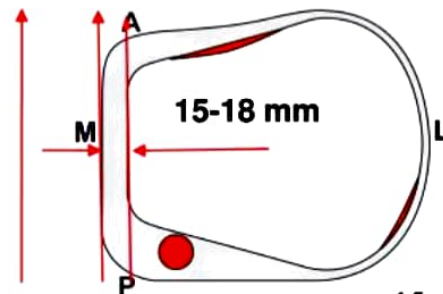
TF RECTIFICATION: MEDIAL VIEW

- 1 - WIDTH OF MEDIAL SHELF = ~15 - 18 mm
- 2 - MEDIAL SHELF IS INCLINED 10-15° AND HAS RELIEF FOR ADDUCTORS = ~10-15mm
- 3 - WALL IS FLAT AND VERTICAL ~100mm
- 4 - SHELF AND WALL REMAIN PARALLEL IN TRANSVERSAL PLANE
- 5 - SHELF AND WALL ARE PARALLEL TO THE LINE OF PROGRESSION
- 6 - POSTERIOR WALL HAS A "POCKET" FOR EXTENSORS ~100mm (shown also on posterior view)

SAGITAL PLANE IS PARALLEL TO THE LINE OF PROGRESSION



INITIAL FLEXION = 5°
(MEDIUM STUMP)



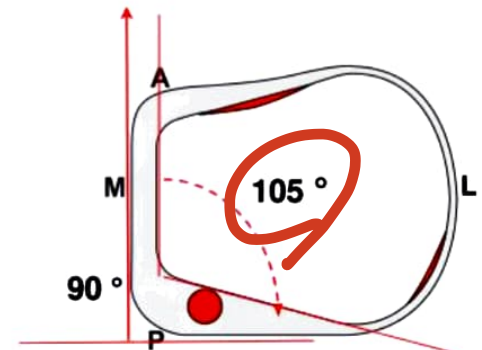
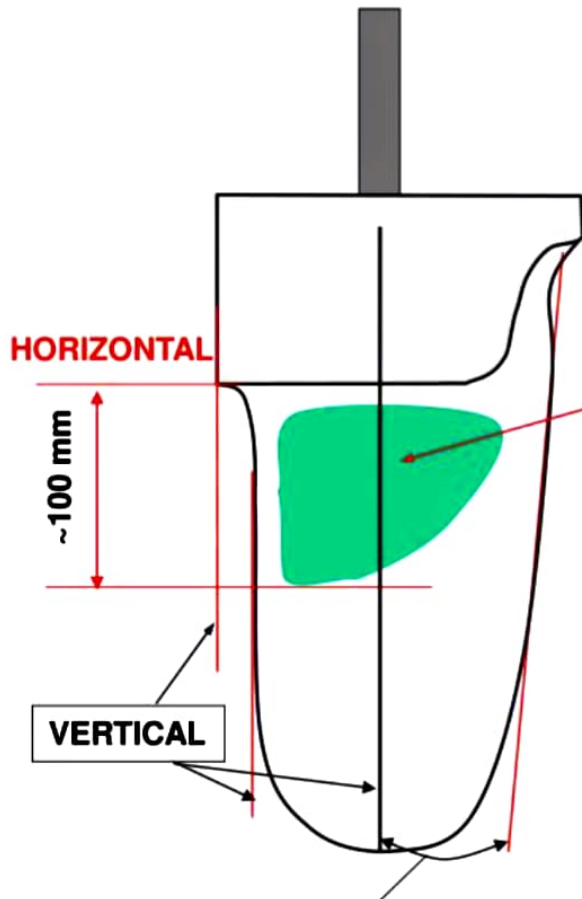
TF RECTIFICATION: POSTERIOR VIEW

1 - POSTERIOR SHELF IS HORIZONTAL IN 2 PLANES

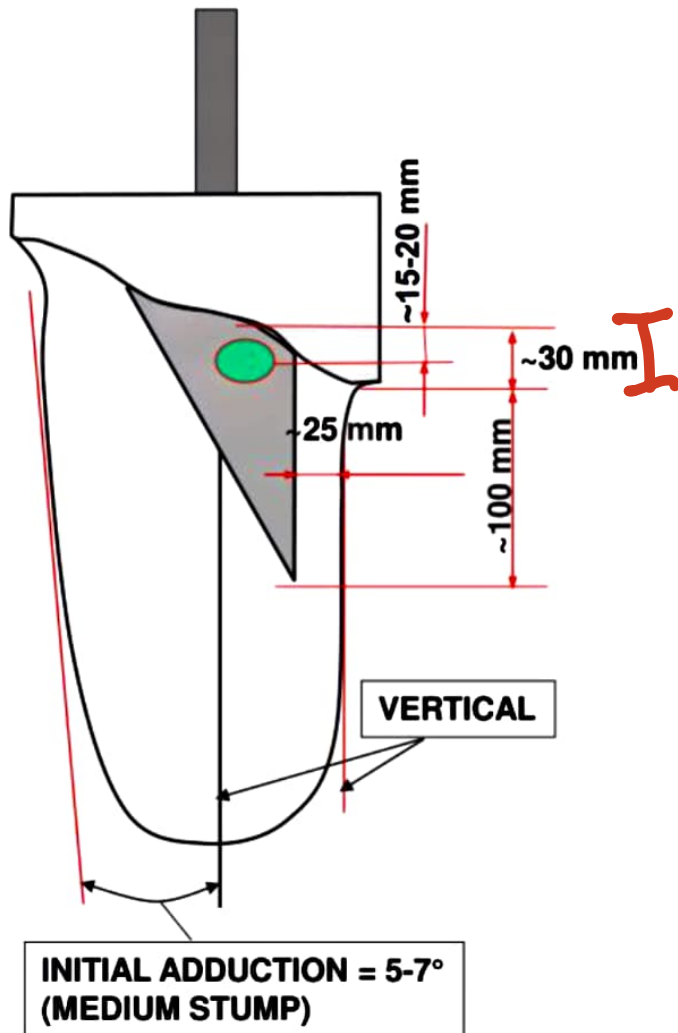
2 - BORDER OF POSTERIOR SHELF IS IN 90° WITH BORDER OF MEDIAL SHELF

3 - POSTERIOR WALL "POCKET" FOR EXTENSOR = $\sim 100\text{mm}$

4 - POSTERIOR WALL IS IN 105° WITH MEDIAL WALL



TF RECTIFICATION: ANTERIOR VIEW



1 - HEIGHT OF SUPERIOR MEDIAL EDGE
IS = ~ 30 mm ABOVE MEDIAL WALL

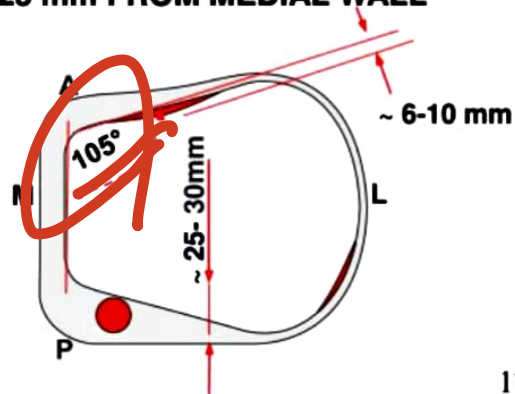
2 - ANTERIOR WALL IS IN 105° WITH
MEDIAL WALL

3 - HEIGHT OF SCARPA'S TRIANGLE
= ~ 100 mm

4 - MAX DEPTH OF SCARPA IS ABOUT
15-20 mm FROM ANTERIOR EDGE

5 - DEPTH OF SCARPA'S TRIANGLE
= ~ 6-10 mm

6 - MEDIAL EDGE OF SCARPA'S IS
= ~ 25 mm FROM MEDIAL WALL

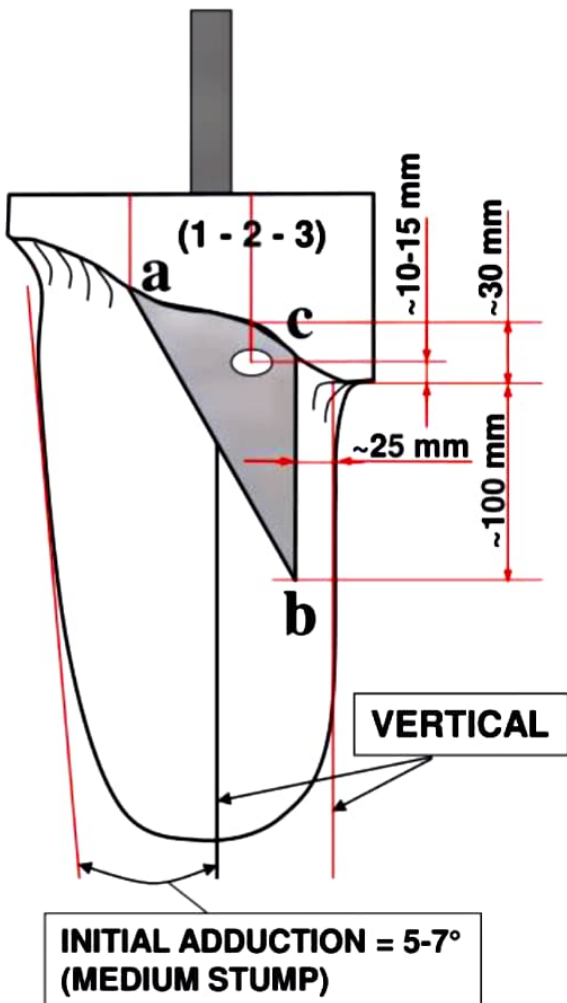


TF RECTIFICATION: ANTERIOR VIEW

Determination of Scarpa's triangle

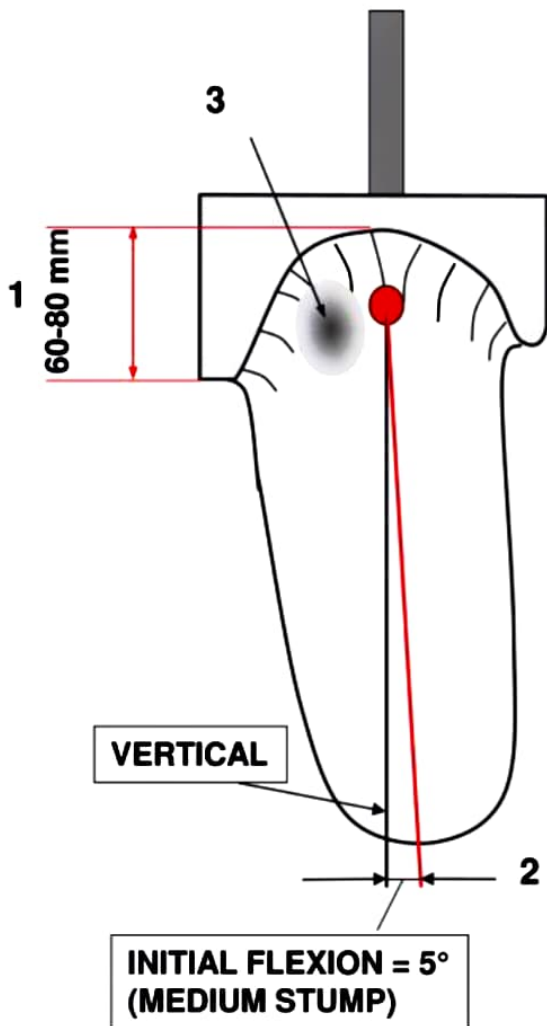
- Take the medial lateral distance and divided by 3
- Mark the of lateral third "a" .
- Mark the point at 25 m from medial corner "c"
- From point "c" draw a vertical line 100 mm to distal end = point b
- Joint point a,b,c = Scarpa triangle

Make your choice according to the size and stump condition



- 1 - HEIGHT OF SUPERIOR MEDIAL EDGE = ~ 30 mm
- 2 - ANTERIOR WALL IS IN 105° WITH MEDIAL WALL
- 3 - HEIGHT OF SCARPA'S TRIANGLE = ~ 100 mm
- 4 - DEPTH OF SCARPA'S TRIANGLE = ~ 6-10 mm

TF RECTIFICATION: LATERAL VIEW



SAGITAL PLANE IS
PARALLEL TO THE
LINE OF PROGRESSION

