Knee Disarticulation Prosthetic Course

Rectification Procedure

Why do we need to rectify?

- To produce good cast – good socket
- To load pressure on tolerant areas – where?
- To unload pressure on sensitive areas – where?
  - Femoral epicondyles
  - Adductor tubercle
  - Hamstring tendons
  - Patella
  - Any scared tissue
- Ischial weight bearing requires?

Pre-rectification

- Transfer the plumb line
- Clean the cast and redrawn the mark
- Check measurement and decide goal measurement

Goal Measurement

- Proximal Soft Tissue area

Soft tissue	Reduction	
	TF	KD
Firm	2.5cm	1.25cm
Average	3cm	1.5cm
Soft	3.5cm	1.75cm

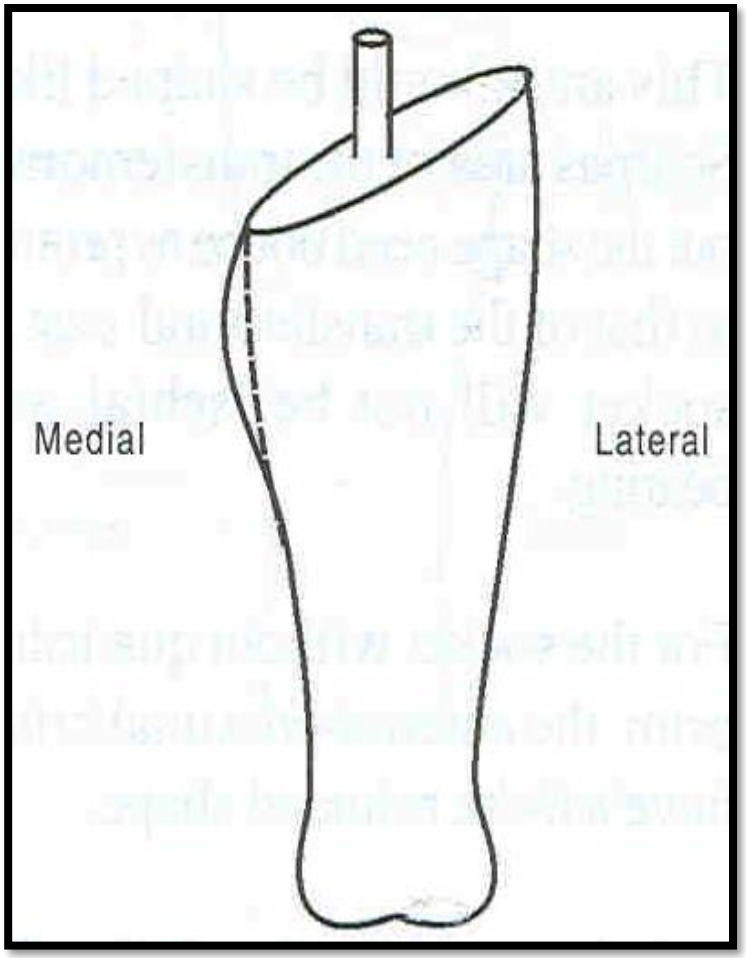
Goal Measurement

- Bigger / Softer / Fatter stump – reduce more
- Smaller / Firmer/ Leaner stump – reduce less

- Supracondylar diameter – same as measurement?
- Distal bulbous end – avoid pressure on epicondyles

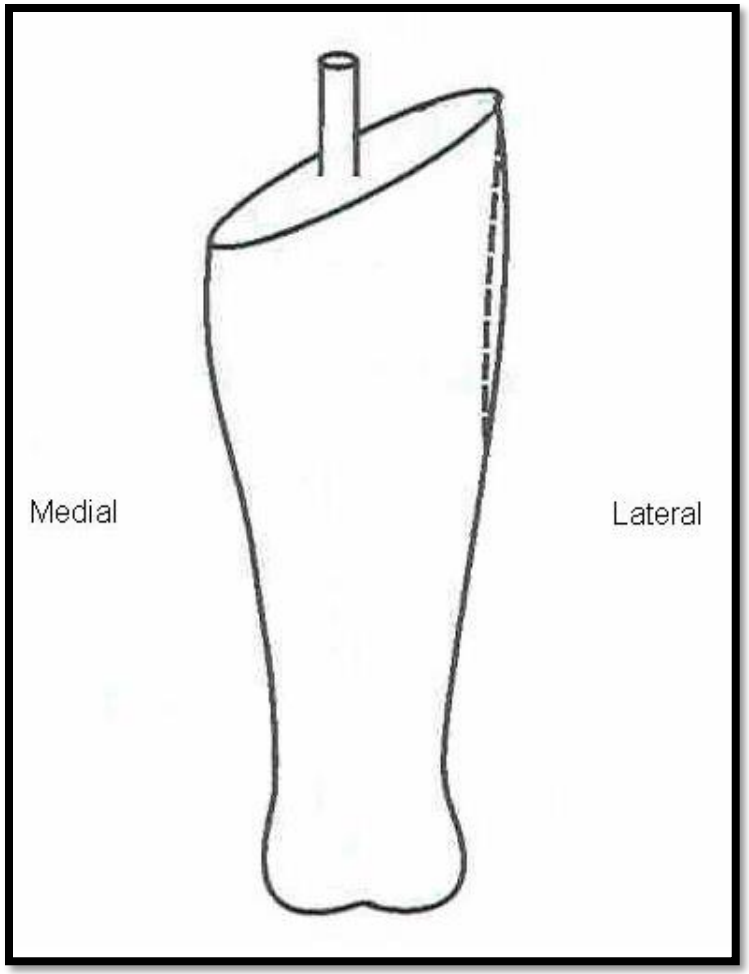
Cast Reductions

- Medial proximal wall
  - Flatten to follow line of progression
  - Inspect to the direction of patella and epicondyles
    - attention for rotational control
  - Trim line determination



Cast Reductions

- Lateral proximal wall
  - Flatten with even pressure – greater trochanter
  - M-L diameter
  - Trim line

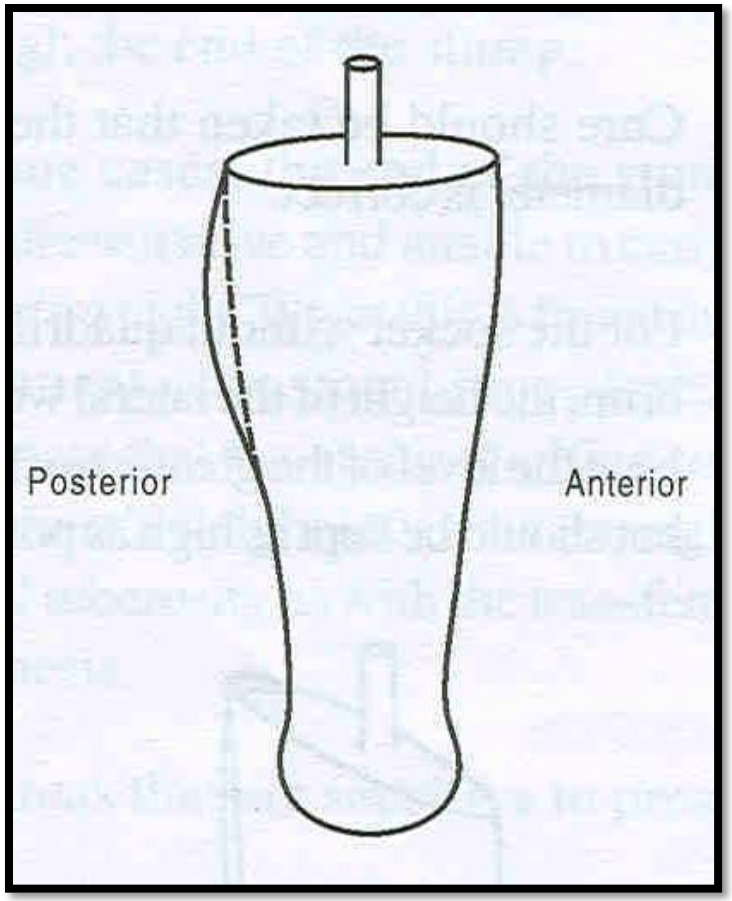


Cast Reductions

- Anterior proximal wall
  - Shape femoral triangle
  - Not prominent shape as TF
  - More round shape

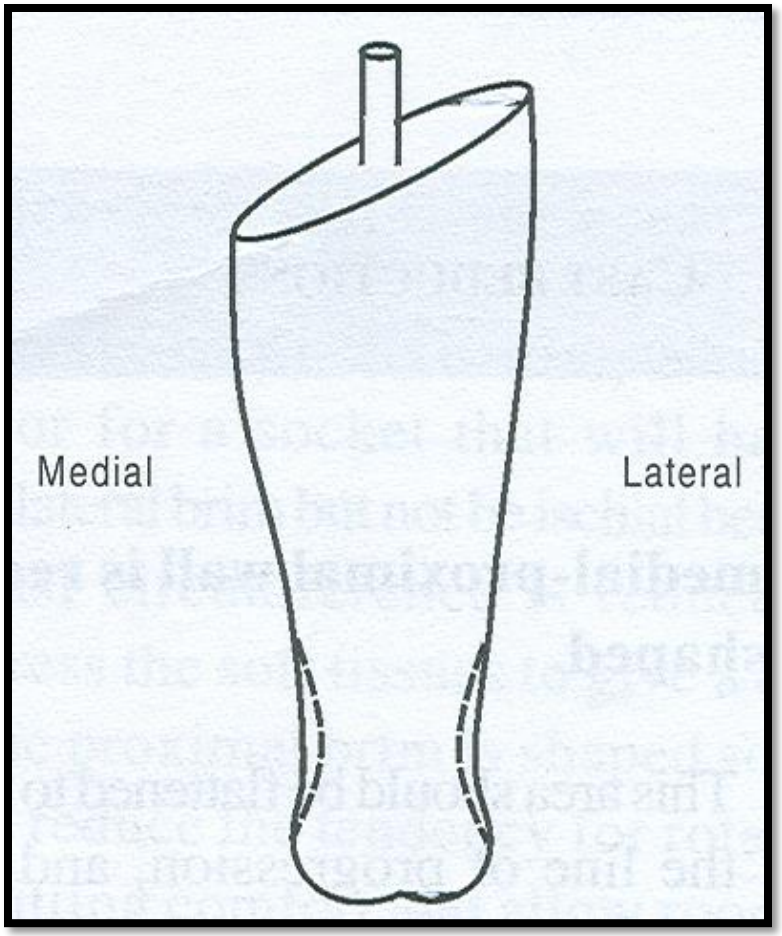
Cast Reductions

- Posterior proximal wall
  - Flatten for comfort during sitting
  - No Ischial shape
  - Avoid pressure on the brim



Cast Reductions

- Supracondylar area
  - Same as stump measurement
  - Sharper shape just above epicondyles
  - Non-end bearing – no reduction



Cast Build-Ups

- Trim lines
  - As long as possible
  - Medial – maximum 5cm below groin area
  - Anterior and posterior trim lines higher than medial
  - Flare at medial, anterior, posterior – not lateral

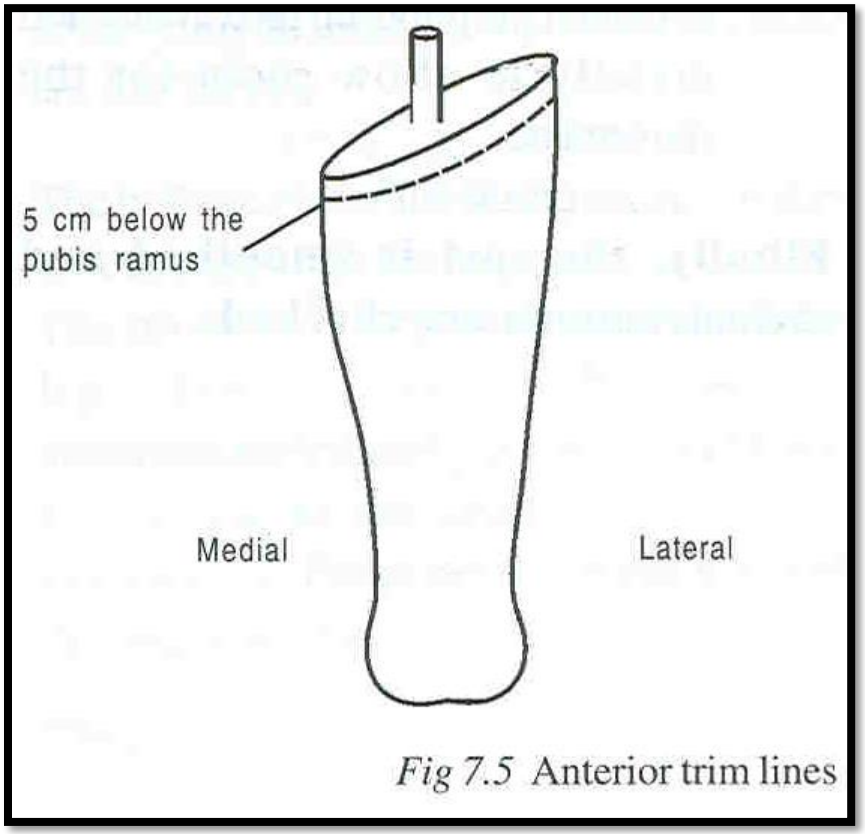
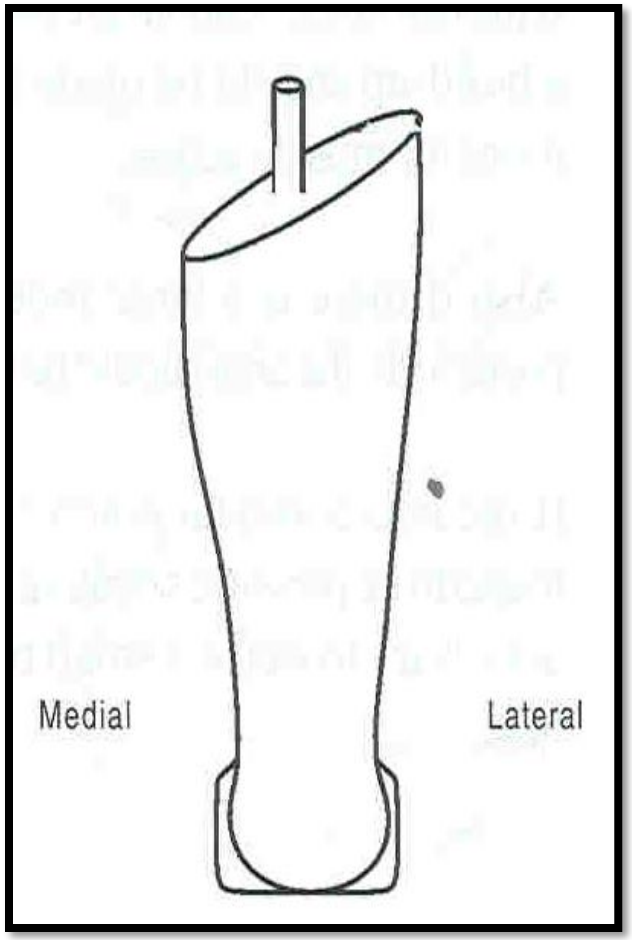


Fig 7.5 Anterior trim lines

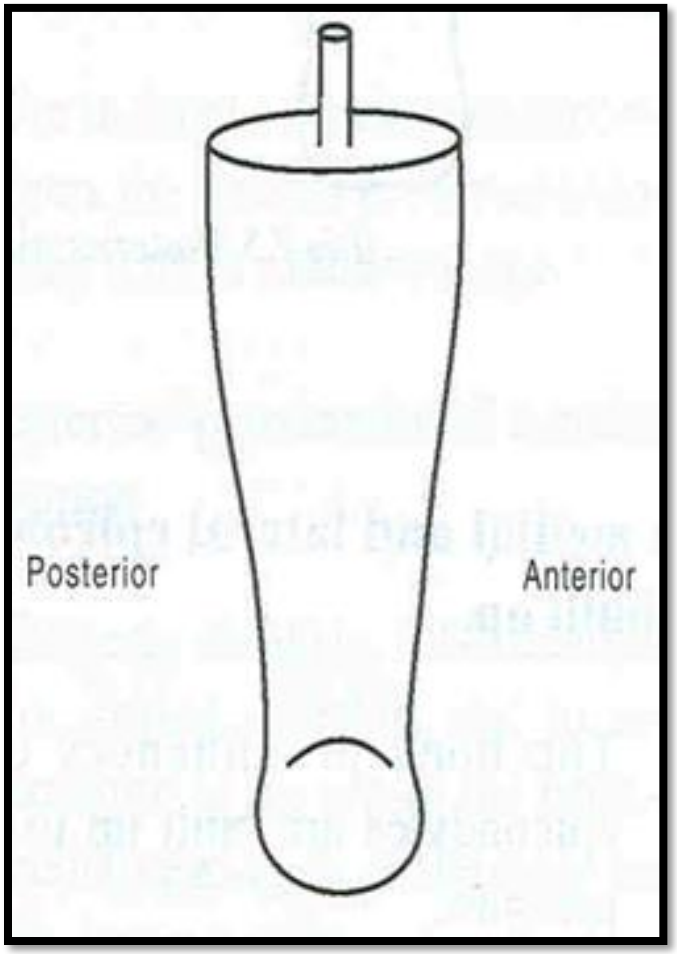
Cast Build-Ups

- Epicondyles
  - Avoid pressure
  - Bigger build-up for bony stump
  - Square-like shape
  - Attention to adductor tubercle
  - Follow the shape



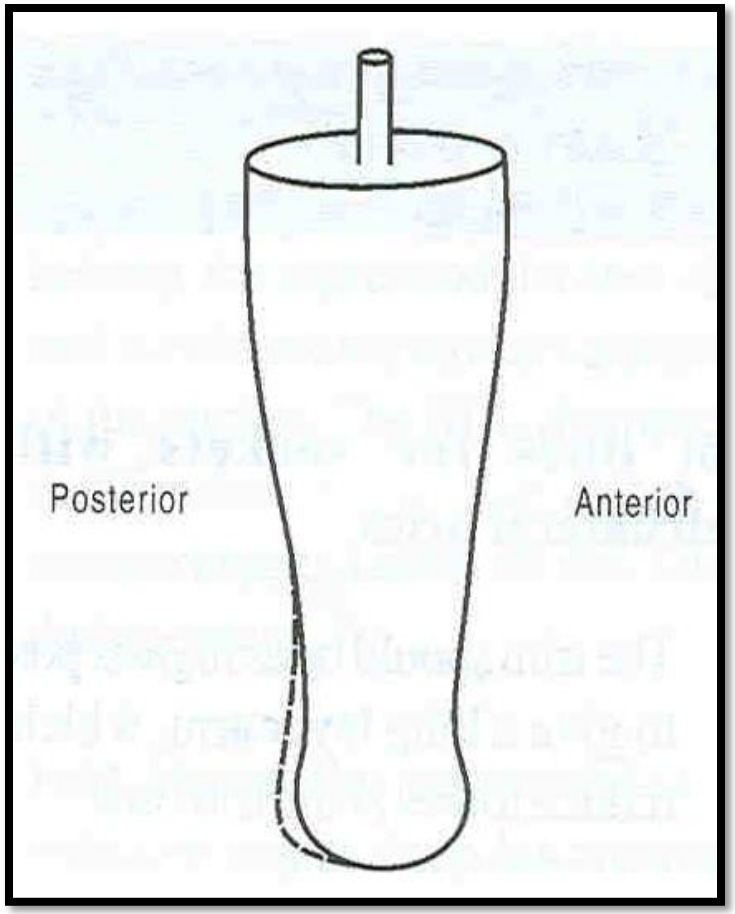
Cast Build-Ups

- During building up – the curve shape of proximal epicondyles should be followed



Cast Build-Ups

- Posterior flare of condyles
  - Little build up
  - Hamstring tendons
  - Inter-condylar notch



Cast Build-Ups

- Patella
  - 3-5 mm build up if present
  - Mobile?

Finalize the cast

- Check measurement
- Smooth the cast
  - Apply wet plaster bandage to smooth
  - Use plastic net or metal net

Check-List

- Preparing for rectification
  - Establishing the goals
- Cast reductions
  - Proximally
    - medial, lateral, posterior and anterior
  - Distally
    - Supracondylar area
- Cast build-ups
  - epicondyles
  - patella

Any Questions??

Thank You