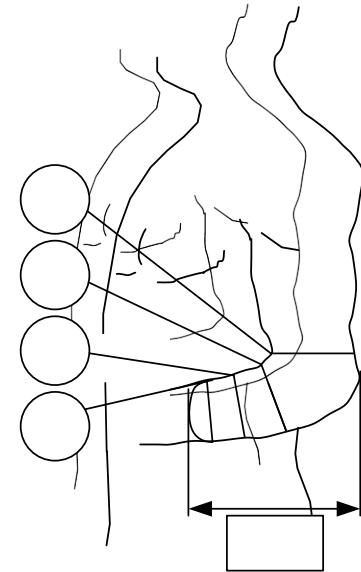


Casting Technique Below Elbow



Materials



You need:

4-fold plaster bandage
15 cm wide

2 elastic bandages
10 cm wide

Perlon Stockinette

Tether

Tape measure

Copy pen

Scissors

Knife

Clinical investigation



Clinical investigation of the residual limb to determine salient points of the bone

- olecranon
- epicondyls
- ends of bones
- predefine the electrode position



Isolating the residual limb

Application of the parting agent (cast-isolating cream or baby oil)



Even distribution on the entire residual limb surface



Apply the perlon stockinette



Mark the residual limb

Mark the positions of the electrodes...

...on the predefined muscle bellies



Casting Technique Below Elbow



Mark the residual limb

Mark the medial and lateral epicondyles...



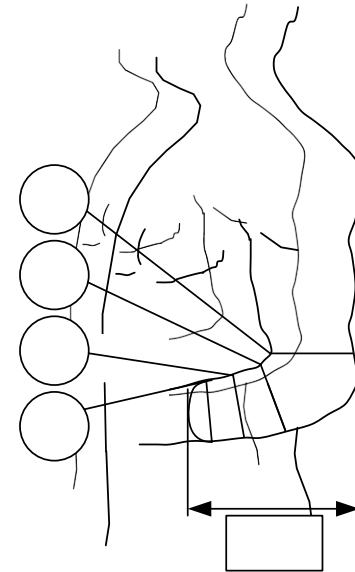
...the olecranon...

...and the proximal end of the socket



Measuring of the residual limb

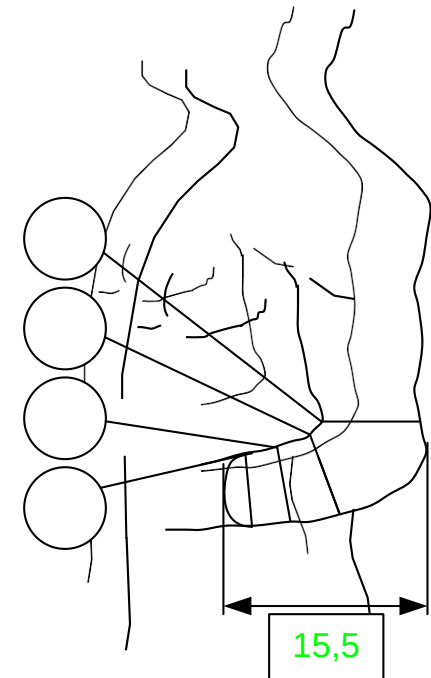
When you measure the residual limb you take four circumferential measurements and one longitudinal measurement, which are used for the modeling process.



Please pay attention that the circumferential measurements are evenly distributed. The distance between them should not be more than 4 cm.

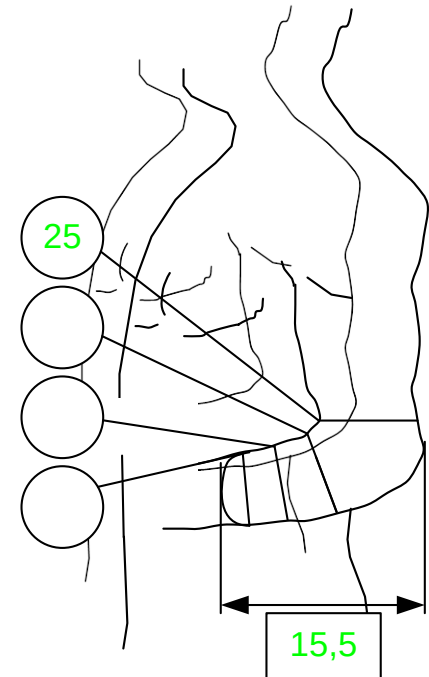
Measuring of the residual limb

The residual limb length is measured from the rear edge of the olecranon to the tip of the residual limb.



Measuring the residual limb

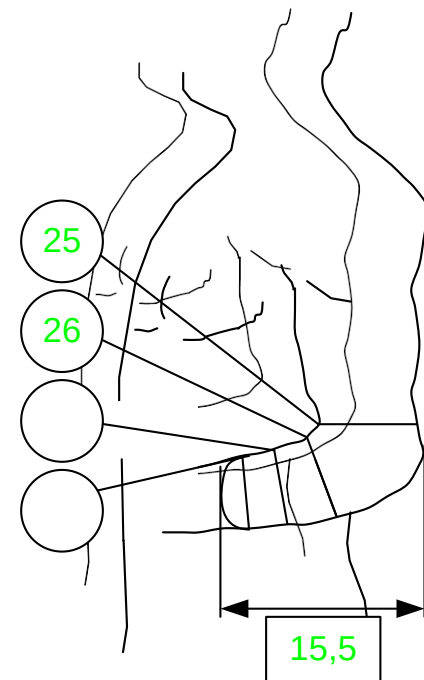
Circumferential measurement
above the epicondyle



Measuring the residual limb



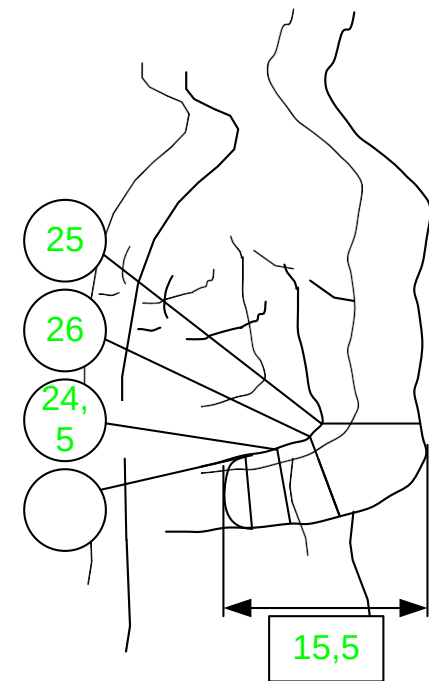
Taking the proximal
circumferential measurement



Measuring the residual limb



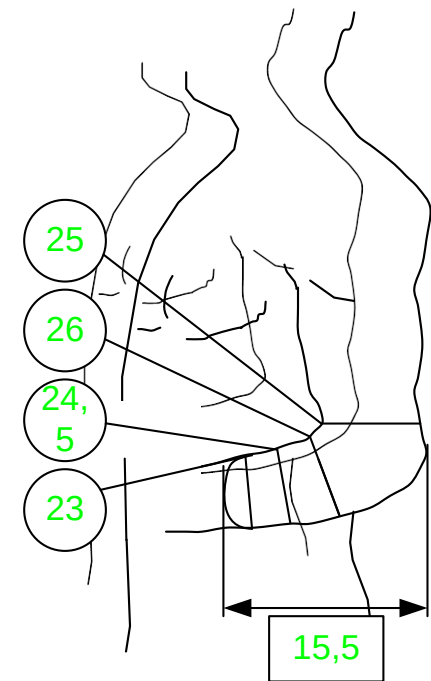
Taking the medial circumferential measurement



Measuring the residual limb



Taking the distal circumferential measurement



Casting



Apply the cast-bandage within the area of the epicondyles

...modeling of the supracondylar-socket





Form the preliminary run of the
socket



Casting Technique Below Elbow



Wrap the layers in figure-8 loops

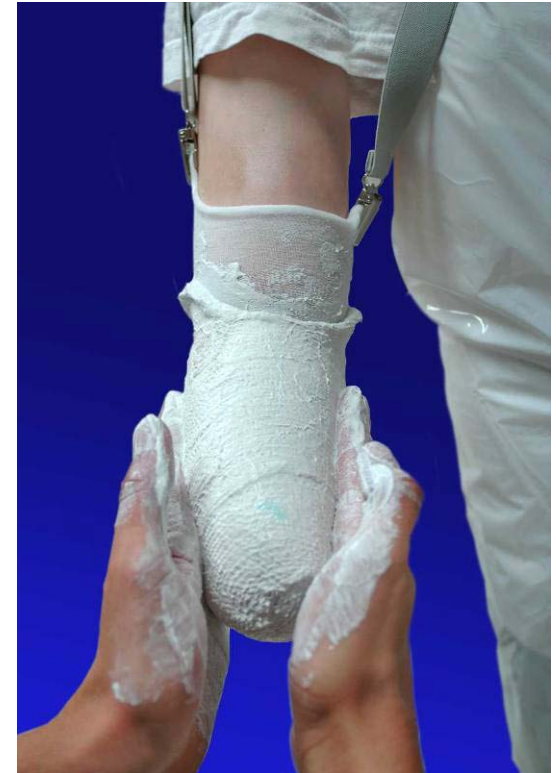
... Apply only gentle pressure, so that you maintain the actual shape of the residual limb.





The modeling of the supracondylar-socket ensures the fitting of the prosthesis...

... and the medial and lateral pressure ensures better rotational stability.





Cut out the prominent points of the bone like the epicondyles and the olecranon in the cast-negative...

...cover them afterwards in a maximal flexion position with cast-pads.





The hole at the end facilitates donning during the initial fitting...

...and serves for the control of the volume





Don the cast-negative

Control the fit regarding

- Volume
- Pressure points





Isolate the Olecranon

Apply a 4-fold cast-bandage



Model plaster over the previously opened places



Casting Technique Below Elbow



Cut the rear edge of the socket to prevent a possible extension deficiency



Finished cast-negative





Creating a cast positive

Close the socket holes and extend the cast-negative with a circular bandage before you pour the socket.



Un-molded cast-positive with visible marks.



Modeling

Save the marks by small holes and slots



Remove unevenness and pay attention to the dimensions

Smoothed cast-positive with flat surfaces at the electrode positions





Deep-drawing

finished model with applied nylon sock and electrode dummies → ready to deep-draw



Deep-drawing of the test socket

Finished test socket





Test socket

Finished test socket with electrodes

...with rounded edges around the opening

