Amputation

Z. Rozkydal

Amputation

Removal of periphery part of the limb at a level of the bone



Obr. 1. Amputation in the calf

Disarticulation

Removal of periphery part of the limb at a level of the joint



Obr. 2. Disarticulation in the knee joint

Indications

- Severe ischemia
- Severe trauma
- Infection with sepsis
- Malignant tumors
- Congenital diseases
- Neuropathies leading to deep trophic ulcers



Obr. 3. deep necrosis in the calf

Preop. assessment

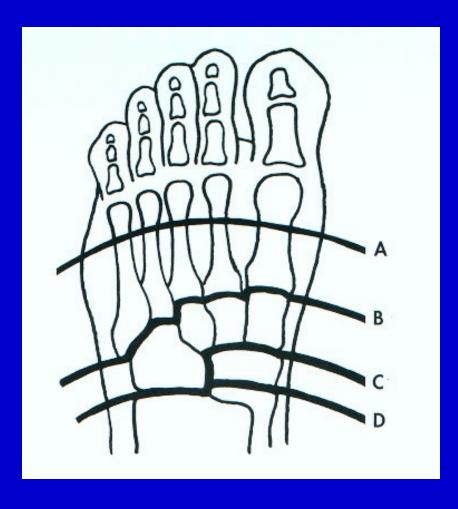
Individual access
Angiography
General condition
Occupation
Level of amputation- consultation

Technique

Turniquet
Safe surgical approach
Carefull ligating of vessels
Myoplastic surgery
- suture of muscles end to end
Dreinage of the wound
Enough soft tissues
Good skin coverage



Amputation in the foot



Phalanx

Toes

A- Metatarsals- Sharp

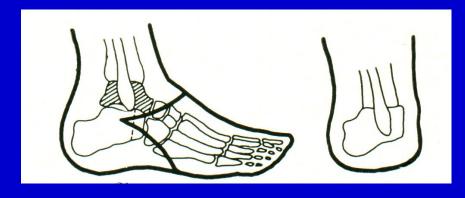
B- Lisfranc

C- Bon-Jäger

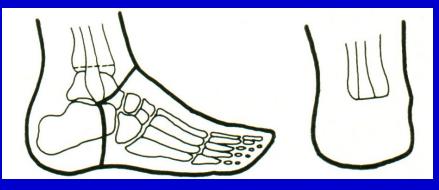
D- Chopart

Level of amputation in the foot

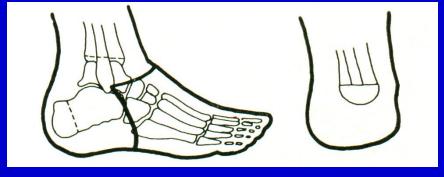
Amputation in the foot and in the ancle



Pirogov



Syme

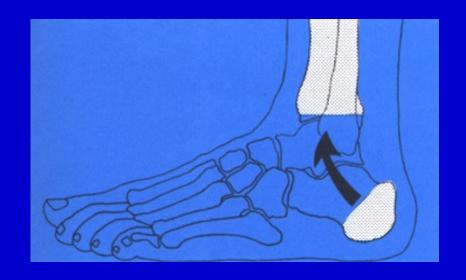


Boyd

Amputation in the foot and the ancle

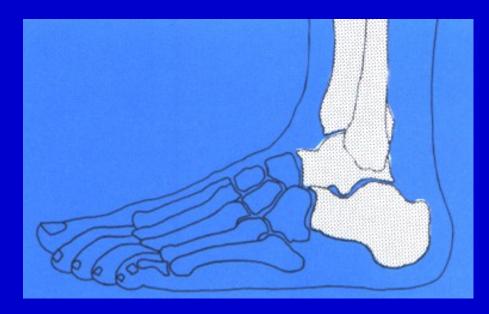


Amputation in Lisfranc joint

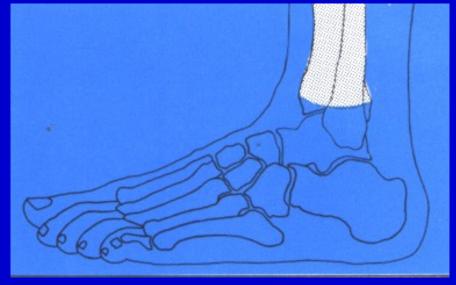


Pirogov amputation

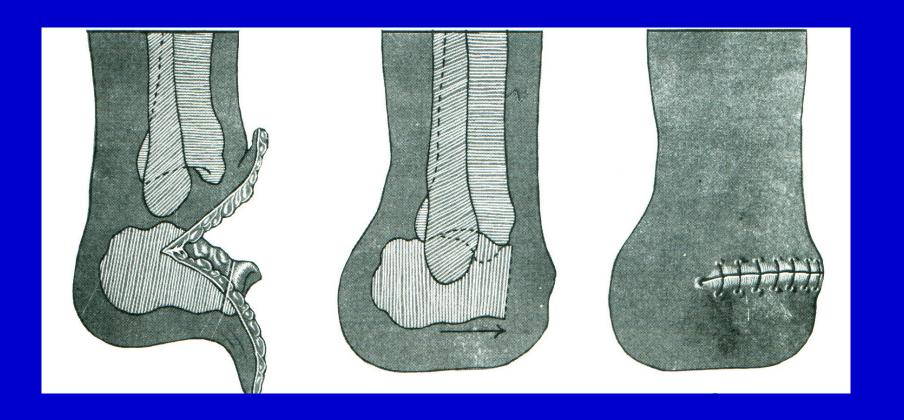
Amputation in the foot and the ancle



Amputation in Chopart joint



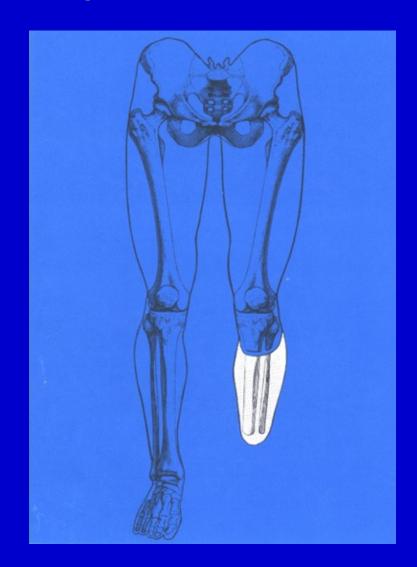
Syme amputation



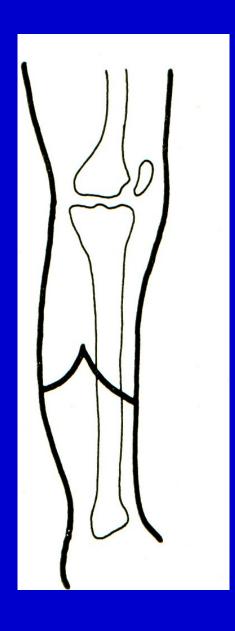
Boyd amputation

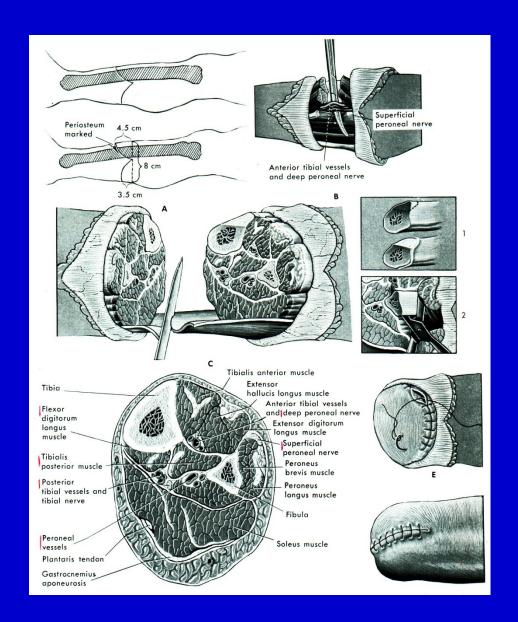
Bellow knee amputation

8-15 cm bellow knee joint line



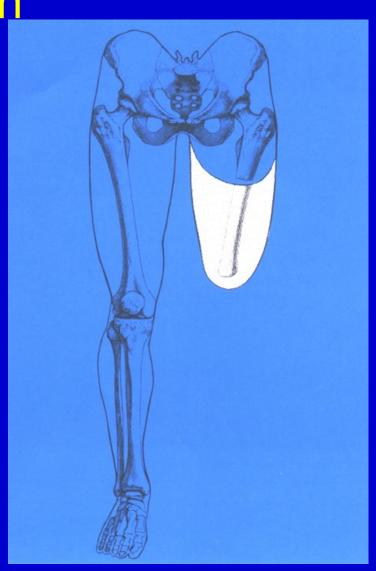
Bellow knee amputation



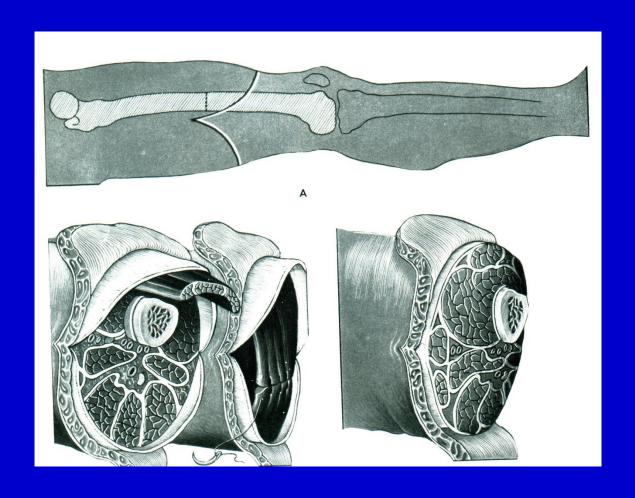


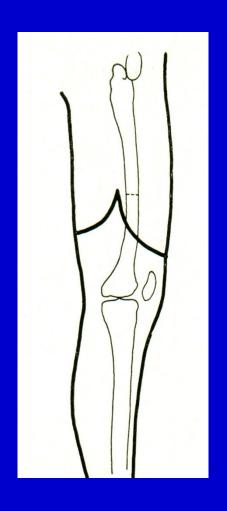
Above knee amputation

In the middle third of the thigh

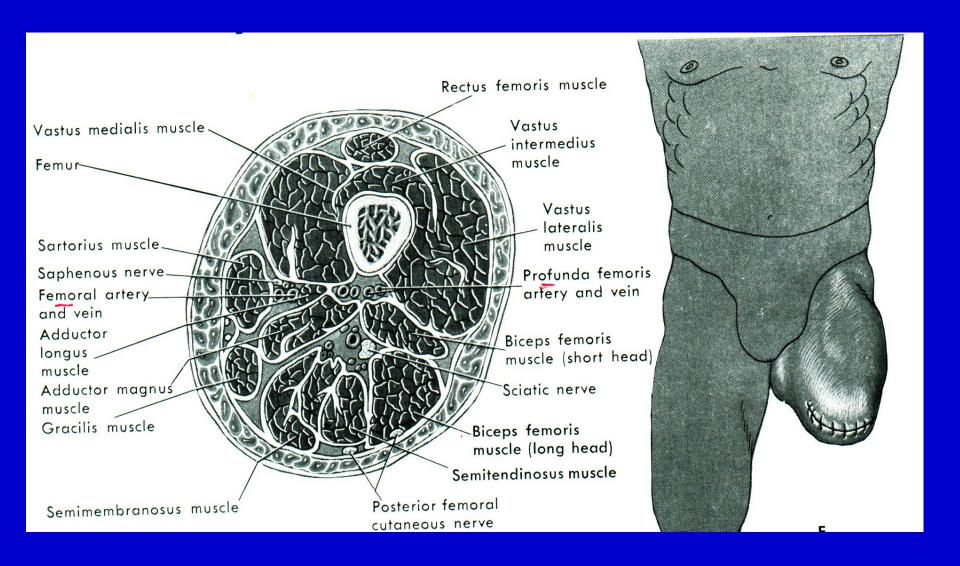


Above knee amputation

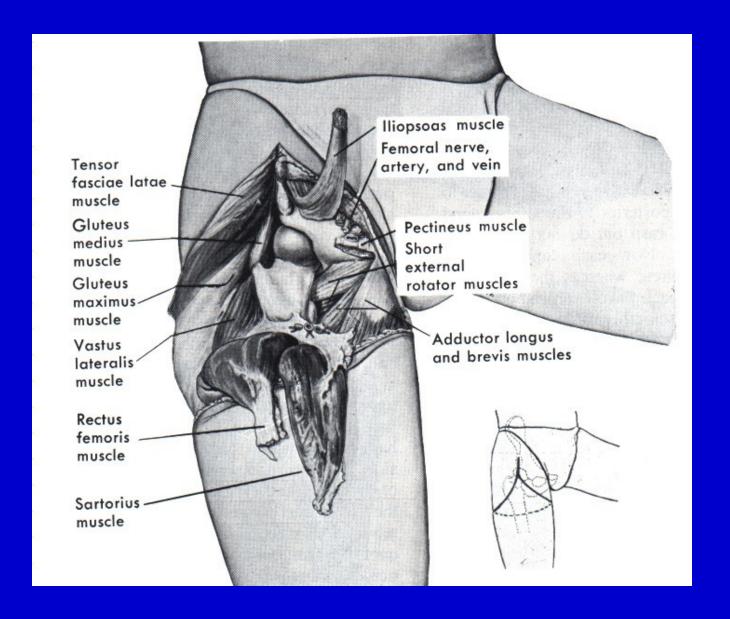




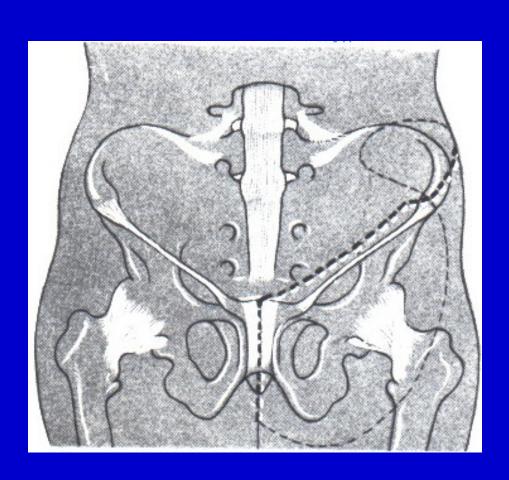
Above knee amputation

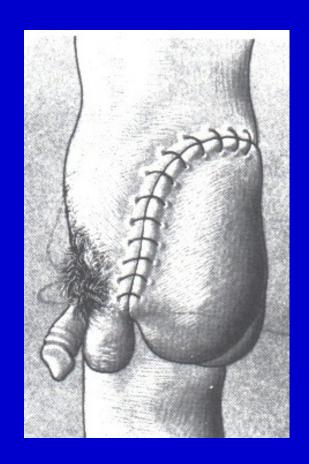


Disarticulation of the hip



Hindquarter amputation - hemipelvectomy





Amputation in the hand

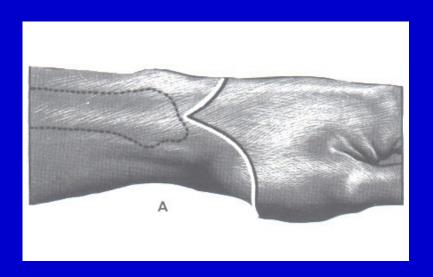
Phalanx

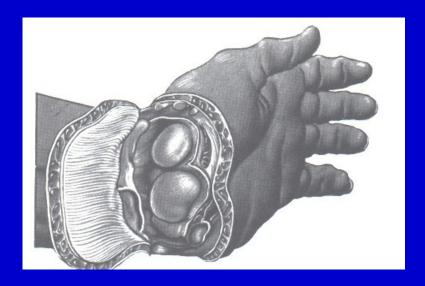
Fingers

Metacarpals

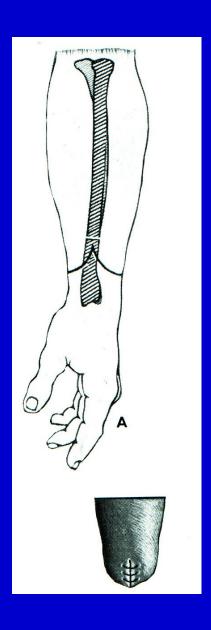


Disarticulation in wrist joint

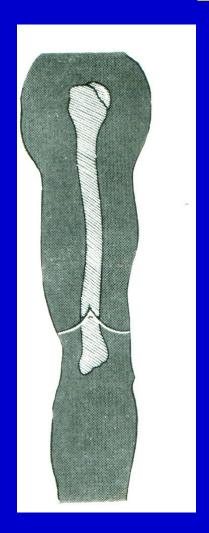


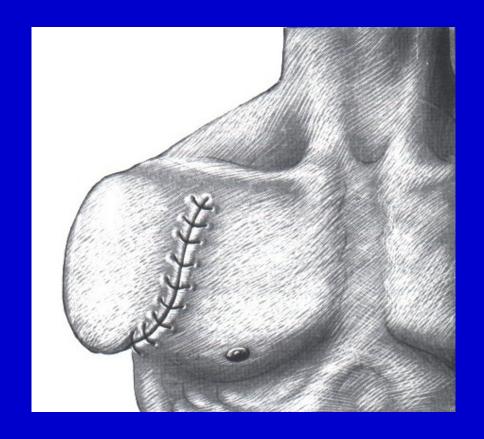


Amputation through forearm



Amputation through arm

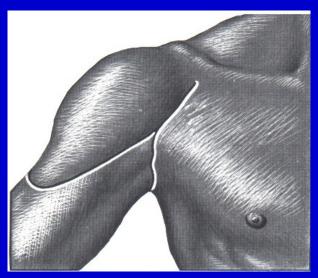


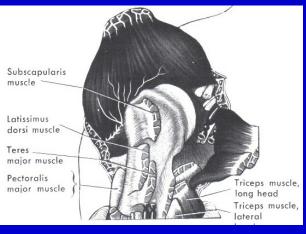


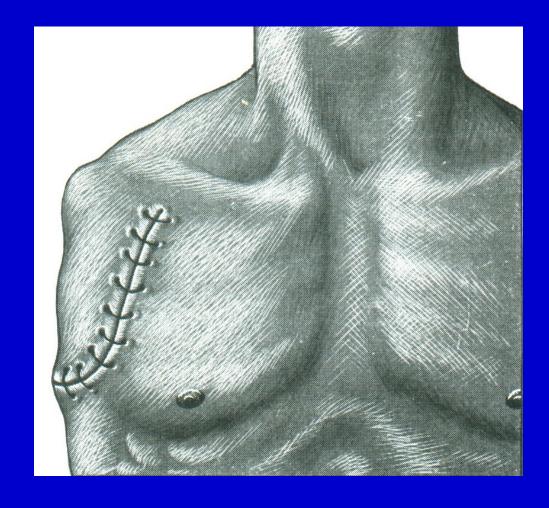
Amputation in surgical neck

Above elbow amputation

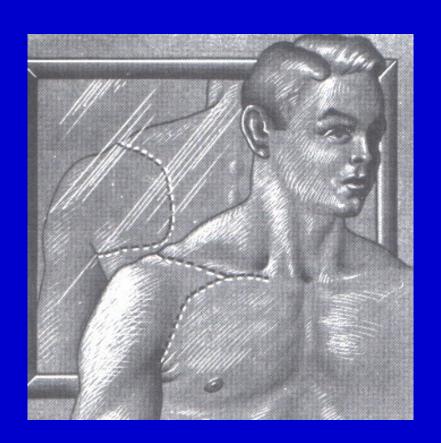
Disarticulation in the shoulder

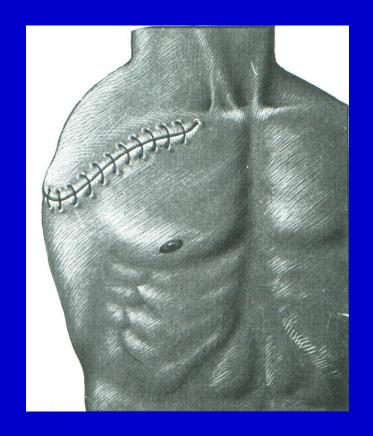






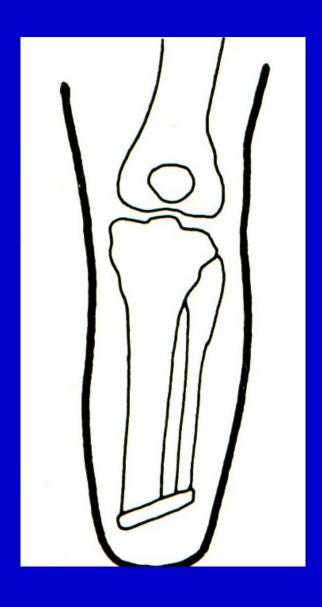
Forequarter amputation





Interthoracoscapular amputation

Osteoplastic amputation



Gilotine amputation

War surgery
One level cut of all structures
No suture of the wound
Requires reamputation

Post op. management

Elastic bandage to conical shape
Positioning
Prevention of flexion contracture
Proprioception
Exercise in bed
Verticalisation

Walking



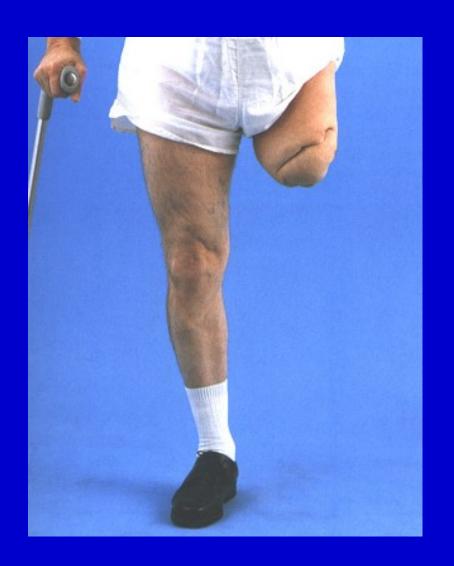
The aim

Good quality stump

Enough soft tissues

Strong muscles

Ability to walk



Disarticulation in the knee region



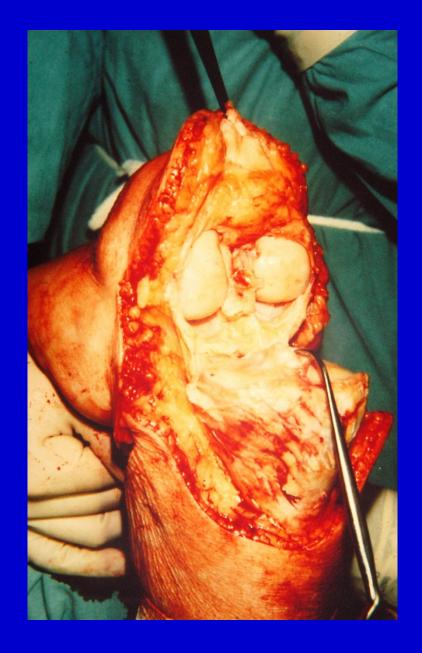


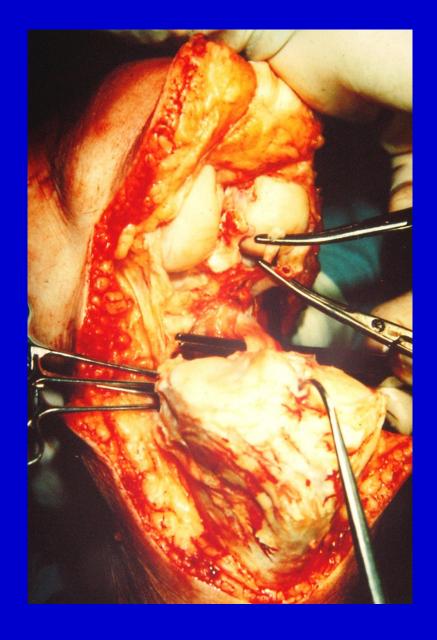
Skin incision



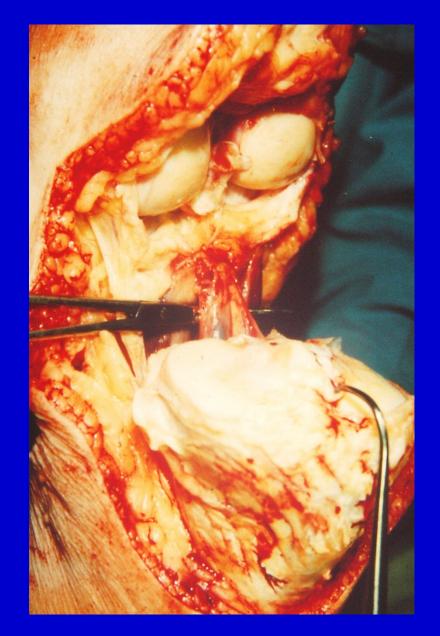


Joint capsule incision, elevation of the patella





Dissection of posterior joint capsule, section of tibial nerve





Ligation of popliteal vessels, removal of the limb

Suture withount tension

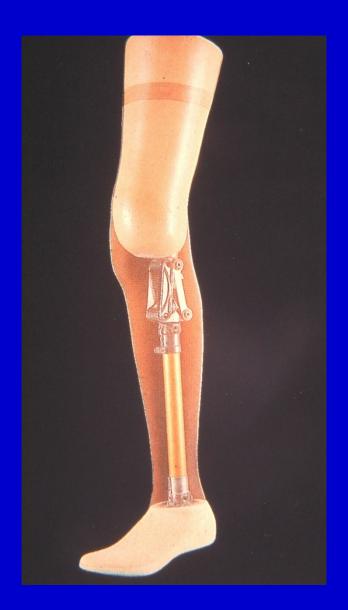




Suture of the wound, healed stump



X - ray after disarticulation





Prosthesis after disarticulation of the knee region