

Management of open fractures



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Formål

- Klassificering
- Primær Behandling
 - Operativ teknik til at stabilisering af åbne frakturer
 - Primær behandling af bløddele
- Final kirurgi
 - Bløddelsdække
 - Plastikkirurgisk assistance
 - Stabilisering

Klassificering



Open fractures - classification

- Mange klassificeringer
- None very good, none very bad
- Intra- og inter-observation problems
- Gustilo-Anderson er mest brugt

Time for healing-Tibial fractures

<u>Gustilo type</u>	<u>Time to healing</u>
Type I	15 weeks
Type II	24 weeks
Type IIIA	27 weeks
IIIB	38 weeks
IIIC	74 weeks

Infection

<u>Gustilo Type</u>	<u>Infection</u>
• Grad I	0-2 %
• Grad II	2-5 %
• Grad III A	5-10 %
• Grad III B	10-50 %
• Grad III C	25-50 %

Gustilo-Anderson

Type	Description
Type I	Clean wound <1 cm in diameter with simple fracture pattern and no skin crushing
Type II	A laceration >1 cm and <10 cm without significant soft tissue crushing. The wound bed may appear moderately contaminated
<u>Type III</u>	An open segmental fracture or a single fracture with extensive soft tissue injury >10 cm. Type III

Åbne frakturer Gustilo type III A-C og frakturer med større segmentært knogletab (i samarbejde med plastikkirurger) (50)

Rigshospitalet, Blegdamsvej

Aarhus Universitetshospital

Aalborg UH Syd

OUH Odense Universitetshospital

injury that requires repair



BAPRAS

British Association of Plastic
Reconstructive and Aesthetic Surgeons

Principal recommendations

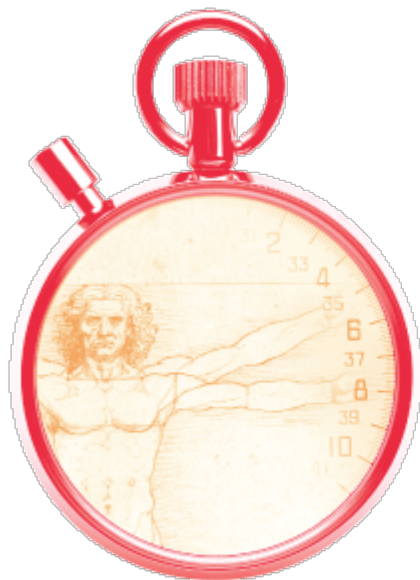
1. A multidisciplinary team, including orthopaedic and plastic surgeons with appropriate experience, is required for the treatment of complex open fractures.
2. Hospitals that lack a team with requisite expertise to treat complex open fractures have arrangements for immediate referral to the nearest specialist centre.
3. The primary surgical treatment (wound debridement/excision and skeletal stabilization) of these complex injuries takes place at the specialist centre whenever possible.

Open Fracture grade I **Clean wound < 1 cm**



**Open fracture grade II:
Wound 1-10 cm, Moderat soft tissue
damage, Adequate bone coverage, Minimal
comminution**





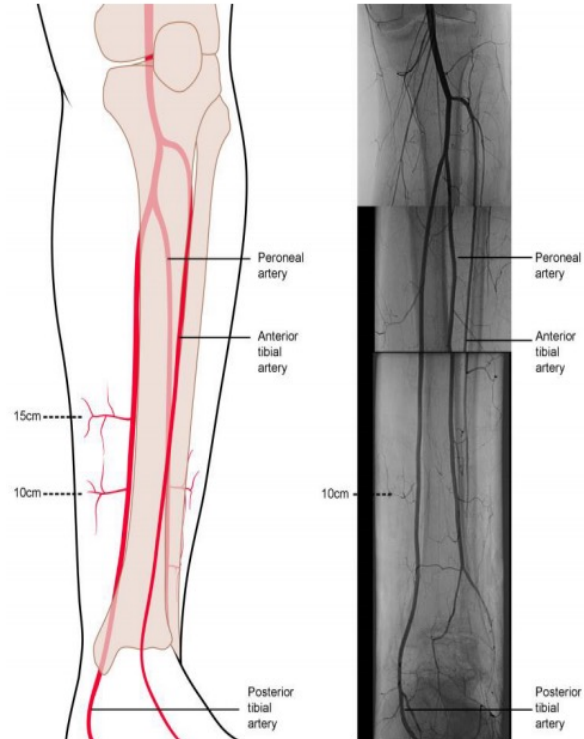
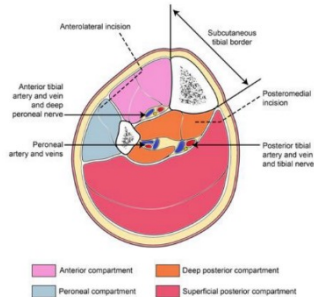
ATLSTM
ADVANCED TRAUMA LIFE SUPPORT







Primær Behandling



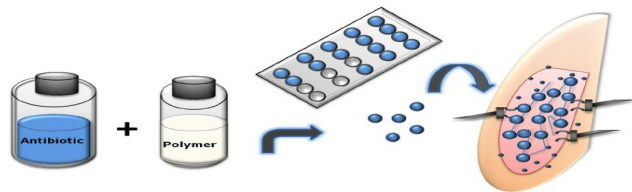
Kirurgisk behandling



Kirurgisk behandling



Kirurgisk behandling





Kirurgisk behandling





Take to work messages

- Klassificeres efter Gustillo-Anderson
 - III skal akut til Universitetshospital
- Primær behandling
 - ABC
 - IV antibiotika
 - Reponer
 - Våd serviet og film
- Akut kirurgisk intervention
 - Stor synlig forurening
 - Kompartiment
 - Lukseret led
 - Vaskulær skade
- Kirurgisk Principper
 - Vand
 - Debridement
 - Fasciotomi
 - Plastikkirurgisk samarbejde (72 timer)