

ORTHOPAEDICS



FOR PRIMARY
HEALTH CARE



LION

LEARNING INNOVATION VIA
ORTHOPAEDIC NETWORKS

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Complications of fractures

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Learning objective

1. List and understand the common complications of fractures.

Life-threatening complications

Life-threatening complications can include massive haemorrhage, mainly in femur and pelvic ring fractures or fractures with injuries to large vessels. In hip fractures, life-threatening complications are often due to sequela of immobility such as pneumonia or thromboembolic disease.

Acute complications

Acute complications can include injuries to structures such as nerves and vessels (neurovascular injuries), the skin and soft tissue integument (degloving injuries and open fractures, fracture blisters) and compartment syndrome.

- Nerve injuries
- Vascular injuries
- Soft tissue injuries
- Compartment syndrome
- Fracture blisters (see below)



Fracture blisters

Chronic or delayed complications

- Infections (osteomyelitis)
- Delayed, non- or malunion
- Post-traumatic arthritis
- Complex regional pain syndrome



Non-union of a tibial fracture

Complications of peri- and intra-articular fractures

Avascular necrosis

- Post-traumatic arthritis
- Stiffness
- Heterotopic ossification

References

Modified images

Fracture blisters. Available from:

https://commons.wikimedia.org/wiki/File:Fracture_blisters.jpg

Non-union. Available from: https://commons.wikimedia.org/wiki/File:Ganglio_intraosseo.png

File:Ganglio_intraosseo.png

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ABOUT THE BOOK

Informed by experts: Most patients with orthopaedic pathology in low to middle-income countries are treated by non-specialists. This book was based on a modified Delphi consensus study* with experts from Africa, Europe, and North America to provide guidance to these health care workers. Knowledge topics, skills, and cases concerning orthopaedic trauma and infection were prioritised. Acute primary care for fractures and dislocations ranked high.

Furthermore, the diagnosis and the treatment of conditions not requiring specialist referral were prioritised.

* Held et al. Topics, Skills, and Cases for an Undergraduate Musculoskeletal Curriculum in Southern Africa: A Consensus from Local and International Experts. JBJS. 2020 Feb 5;102(3):e10.

THE LION

The Learning Innovation via Orthopaedic Network (LION) aims to improve learning and teaching in orthopaedics in Southern Africa and around the world. These authors have contributed the individual chapters and are mostly orthopaedic surgeons and trainees in Southern Africa who have experience with local orthopaedic pathology and treatment modalities but also in medical education of undergraduate students and primary care physicians. To centre this book around our students, iterative rounds of revising and updating the individual chapters are ongoing, to eliminate expert blind spots and create transformation of knowledge.

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This textbook is not intended as a substitute for the medical advice of physicians. The reader should regularly consult a physician in matters relating to his/her health and particularly with respect to any symptoms that may require diagnosis or medical attention.

The information in this book is meant to supplement, not replace, Orthopaedic primary care training. The authors, editor and publisher advise readers to take full responsibility for their safety and know their limits. Before practicing the skills described in this book, be sure that your equipment is well maintained, and do not take risks beyond your level of experience, aptitude, training, and comfort level.

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