

## Infection

### Summary

**Infection can develop after any injury** where the skin is breached. For this reason, wounds are often debrided, washed out and repaired in the operating room. This is **particularly true for contaminated wounds caused by bites, oyster shells or dirty tools.**

### Treatment and Complications

The complications of wounds in some anatomical sites are so severe that all wounds should be operated upon. This includes **joints, particularly the flexed metacarpophalangeal joint (knuckle)**, where a penetrating wound travels through skin, tendon and joint capsule. After the injury the finger is straightened and these structures glide to a new position trapping bacteria within the joint. **Septic arthritis can result, requiring multiple operations and extended antibiotics to clear the infection.**

**The sheath of the flexor tendons is another anatomical space that should always be explored** and washed out if there's any chance of infection. Bacteria becomes trapped, then travels within the sheath and along the tendon which has a limited blood supply. This allows the infection to track along the finger and into the palm. Given the confined space a **compartment like syndrome can develop and lead to ischaemia.** Septic tenosynovitis is one of the true emergencies in hand surgery.

