### Management of Hand Injuries

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#### To Determine Nerve Injury

**Test for Sensation**
Touch the finger lightly on both sides of the pulp to determine two-point discrimination (NL = 4 to 6mm).

**Each digital nerve is tested for sensation.**

**Test for Motor Skills**
Palpate the opponens muscle (motor branch of median nerve) as thumb touches small finger.

**Opponens muscle is palpated to test motor nerve integrity.**

**Test Interosseus Muscles (motor branch of ulnar nerve)**
While grasping the outer fingers, have the patient move the middle finger as a “windshield wiper.”

**Patient moves middle finger to test interosseus muscles (ulnar nerve).**

#### To Determine Tendon Injury

**Test for Flexor Tendons**
Palpate deep (profundus) and superficial flexor tendons of each finger.

**Deep (profundus) flexor tendon of each finger is tested.**

**Superficial flexor tendon of each finger is tested.**

**Test for Long Extensor Tendons**
Have the patient hold fingers straight and lift thumb, then curl fingers and lift knuckles.

**Long extensor tendon of thumb is tested.**

#### To Determine Fractures

Fractures are usually obvious and can be confirmed by posterior-anterior and lateral roentgenograms. To treat most fractures, consult with a hand surgeon.

#### Infection

**Prevention**
Most wounds of the hand can be safely left open to heal by secondary intention. This procedure usually avoids serious infection. Puncture wounds require close follow up, because they can lead to severe infections. Give tetanus immunization when appropriate.

**Surgical Emergencies Resulting from Infection**
Signs of tenosynovitis are:
- diffuse swelling and tenderness
- pain on passive stretch of the digit

Signs of purulent arthritis are:
- joint tenderness
- exquisite sensitivity (pain) on any motion of the joint

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