injured extremity

ATLS/Resuscitation

Arterial Injury

Hard Signs**

- Hemorrhagic
- Ischemic

Measure A:A, ABI, or B:B*

- Index < 0.9 or ≥ 0.9***
- Index ≥ 0.9

CTA or formal angiogram

Operative?

Surgery

Observation

72 hrs

F/U: CTA or Arterial duplex

Possible Venous Injury

- hypotension
- RBC transfusion
- compartment syndrome

Surgery

Denver Health Peripheral Vascular Injury Protocol

*A:A – ankle-ankle index; ABI – ankle-brachial index; B:B – brachial-brachial index

**HARD signs of arterial injury: pulsatile bleeding, expanding hematoma, evidence of regional ischemia/pulselessness

***SOFT signs of arterial injury: history of moderate hemorrhage, separate injury in proximity to major artery, diminished but palpable pulse, peripheral nerve deficit, trajectory of injury.