



Back Pain

History

- Age
- Past medical history
- Past surgical history
- Medications
- Onset of pain / injury
- Previous back injury
- Traumatic mechanism
- Location of pain
- Fever
- Improvement or worsening with activity

Signs and Symptoms

- Pain (paraspinous, spinous process)
- Swelling
- Pain with range of motion
- Extremity weakness
- Extremity numbness
- Shooting pain into an extremity
- Bowel / bladder dysfunction

Differential

- Muscle spasm / strain
- Herniated disc with nerve compression
- Sciatica
- Spine fracture
- Kidney stone
- Pyelonephritis
- Aneurysm
- Pneumonia
- Spinal Epidural Abscess
- Metastatic Cancer
- AAA

B	Consider Cardiac Etiology 12 Lead ECG Procedure <i>if indicated</i>
P	Cardiac Monitor <i>if indicated</i>
	Age Appropriate Cardiac Protocol(s) <i>if indicated</i>

Injury or Traumatic Mechanism

YES → Spinal Motion Restriction Procedure WTP 2/ Protocol TB 8 *if indicated*

Shock/ Hemodynamic Instability

YES → IV or IO Access Protocol UP 6

Age Appropriate Airway Protocol(s) AR 1, 2, 3, 5, 6 *if indicated*

A **Normal Saline Bolus 500 mL IV**
Titrate to SBP ≥ 90
2 L Maximum

Peds: 20 mL/kg IV / IO
Titrate age appropriate
SBP ≥ 70 + (2 x Age)
Maximum 60 mL/kg

Age Appropriate Hypotension/ Shock Protocol(s) AM 5/ PM 3 *if indicated*

Multiple Trauma Protocol TB 6 *if indicated*

Pain Control Protocol UP 11 *if indicated*

Monitor and Reassess

Notify Destination or Contact Medical Control



Back Pain

Consider Abdominal Aortic Aneurysm with severe back pain. Classic presentation is abdominal pain radiating to the back. A pulsatile mass may be felt on thin patients.

Avoid Toradol in these patients

Consider Thoracic Aortic Dissection with severe upper back pain - Pain between the shoulder blades and chest pain.

Pearls

- **Recommended Exam: Mental Status, Heart, Lungs, Abdomen, Neuro, Lower extremity perfusion, Back**
- **Back pain is one of the most common complaints in medicine and affects more than 90% of adults at some point in their life. Back pain is also common in the pediatric population. Most often it is a benign process but in some circumstances can be life or limb threatening.**
- **Consider pregnancy or ectopic pregnancy with abdominal or back pain in women of childbearing age.**
- **Consider abdominal aortic aneurysm with abdominal pain especially in patients over 50 and/ or patients with shock/ poor perfusion. Patients may have abdominal pain and/ or lower extremity pain with diminished pulses. Notify receiving facility early with suspected abdominal aneurysm.**
- **Consider cardiac etiology in patients > 35, diabetics and/ or women especially with upper abdominal complaints.**
- **Red Flags which may signal a more serious process associated with back pain:**
 - Age > 50 or < 18
 - Neurological deficit (leg weakness, urinary retention, or bowel incontinence)
 - IV Drug use
 - Fever
 - History of cancer, either current or remote
 - Night time pain in pediatric patients
- **Cauda equina syndrome is where the terminal nerves of spinal cord are being compressed (Symptoms include):**
 - Saddle anesthesia (numbness between the genitalia and rectum)
 - Recent onset of bladder and bowel dysfunction. (Urine retention and bowel incontinence)
 - Severe or progressive neurological deficit in the lower extremity.
 - Motor weakness of thigh muscles or foot drop
- **Back pain associated with infection:**
 - Fever/ chills.
 - IV Drug user (consider spinal infection)
 - Recent bacterial infection like pneumonia.
 - Immune suppression such as HIV or patients on chronic steroids like prednisone.
 - Meningitis.
- **Spinal motion restriction in patients with underlying spinal deformity should be maintained in their functional position.**
- **Kidney stones typically present with an acute onset of flank pain which radiates around to the groin area.**