Abdominal and Genitourinary Injuries

The Regions

Hollow Organs in the Abdominal Cavity

Signs of Peritonitis
- Abdominal pain
- Tenderness
- Muscle spasm
- Diminished bowel sounds
- Nausea/vomiting
- Distention

Solid Organs in the Abdominal Cavity

Abdominal Quadrants
Injuries of the Abdomen
- Closed injury
  - Severe blows that damage the abdomen without breaking the skin
- Open injury
  - Foreign body enters the abdomen and opens the peritoneal cavity to the outside

Signs and Symptoms of Abdominal Injury
- Pain
- Tachycardia
- Decreased blood pressure
- Pale, cool, moist skin
- A firm abdomen on palpation
- Bruising

Evaluating Abdominal Injuries
- Determine the type of injury, extent of damage, and presence of shock.
- Keep airway clear and watch for vomiting.
- Place the patient supine with knees bent.
- Obtain baseline vitals.
- Follow DCAP-BTLS.
- Inspect abdomen for wounds.
- Immobilize any impaled objects.

Blunt Abdominal Wounds
- Severe bruises of the abdominal wall
- Laceration of the liver and spleen
- Rupture of the intestine
- Tears in the mesentery
- Rupture or tearing of the kidneys
- Rupture of the bladder
- Severe intra-abdominal hemorrhage
- Peritoneal irritation and inflammation

Care of Blunt Abdominal Wounds
- Place patient on backboard.
- Protect airway.
- Monitor vital signs.
- Administer oxygen.
- Treat for shock.
- Provide prompt transport.

Seat Belts and Airbags
- If used inappropriately, seat belts may cause injuries.
- Frontal airbags provide protection only during head-on collisions.
Care for Penetrating Injuries
- Inspect patient’s back and sides for exit wounds.
- Apply a dry, sterile dressing to all open wounds.
- If the penetrating object is still in place, apply a stabilizing bandage around it to control bleeding and minimize movement.

Abdominal Evisceration
- Internal organs or fat protrude through the open wound.
- Never try to replace organs.
- Cover the organs with a moist gauze, then secure with a dressing.
- Organs must be kept warm and moist.
- Transport promptly.

Anatomy of the Genitourinary System

Injuries to the Kidneys
- Suspect kidney damage if patient has a history or physical evidence of:
  - Abrasion, laceration, or contusion in the flank
  - A penetrating wound in the region of the lower rib cage or upper abdomen
  - Fractures on either side of the lower rib cage or of the lower thoracic or lumbar vertebrae
Injury of the Urinary Bladder

- Either a blunt or penetrating injury can rupture the bladder.
- Urine will spill into the surrounding tissues.
- Suspect if you see blood at the urethral opening or physical signs of trauma on the lower abdomen, pelvis, or perineum.
- Monitor vitals signs.
- The presence of associated injuries or shock will dictate the urgency of transport.

Male Reproductive System

Care for Injury to the External Male Genitalia

- These injuries are painful. Make the patient comfortable.
- Use sterile, moist compresses to cover areas stripped of skin.
- Apply direct pressure to control bleeding.
- Never manipulate any impaled objects.
- Identify and bring avulsed parts to the hospital.

Female Reproductive System

Care for Injuries of the Female Genitalia

- Female internal genitalia is well protected and usually not injured.
- The exception is the pregnant uterus which is vulnerable to both blunt and penetrating injuries.
  - Keep in mind that the unborn child is also at risk.
  - Expect to see signs and symptoms of shock.
  - Provide all necessary support.
  - Transport promptly.

Care for Injuries of the Female Genitalia

- Injuries to the external genitalia are very painful but not life threatening.
- Treat lacerations, abrasions, and avulsions with moist, sterile compresses.
- Use local pressure and a diaper-type bandage to hold the dressing in place.
- The urgency of transport will be determined by the associated injuries, amount of hemorrhage, and the presence of shock.
Primary Assessment

- Evaluate patient’s ABCs.
  - Perform rapid scan.
  - Helps establish seriousness of condition
  - Some injuries will be obvious and graphic.
  - Others will be subtle and go unnoticed.
  - Injury may have occurred hours or days earlier.

Primary Assessment

- Form a general impression.
  - Important indicators will alert you to seriousness of condition.
  - Don’t be distracted from looking for more serious hidden injuries.
  - Check for responsiveness using AVPU scale.

Primary Assessment

- Airway and breathing
  - Ensure airway is clear and patent.
  - Check for spinal injury.
  - Clear airway of vomitus.
    - Note the nature of the vomitus.
  - A distended abdomen may prevent adequate inhalation.
    - Providing oxygen will help improve oxygenation.

Primary Assessment

- Circulation
  - Superficial abdominal injuries usually do not produce significant external bleeding.
  - Internal bleeding can be profound.
    - Trauma to liver, kidneys, and spleen can cause significant internal bleeding.
    - Evaluate pulse, skin color, temperature, and condition to determine stage of shock.
    - Treat aggressively.