Abdomen and Genitalia Injuries

Chapter 28
Hollow Organs in the Abdominal Cavity

- Gallbladder
- Bile duct
- Ureter
- Fallopian tubes
- Appendix
- Urinary bladder
- Stomach
- Large intestine
- Small intestine
- Rectum
- Uterus
Signs of Peritonitis

- Abdominal pain
- Tenderness
- Muscle spasm
- Diminished bowel sounds
- Nausea/vomiting
- Distention
Solid Organs in the Abdominal Cavity

- Liver
- Spleen
- Adrenal gland
- Pancreas
- Kidney
- Ovaries
Abdominal Quadrants

- Right upper quadrant
- Costal arch
- Left upper quadrant
- Anterior superior iliac spine
- Iliac crest
- Left lower quadrant
- Pubic symphysis
- Inguinal ligament
Injuries of the Abdomen

• Closed injury
  – Severe blows that damage abdomen without breaking skin

• Open injury
  – Foreign body enters abdomen and opens peritoneal cavity to outside
Signs and Symptoms of Abdominal Injury

- Pain
- Tachycardia
- Decreased blood pressure
- Pale, cool, moist skin
- Firm abdomen on palpation
- Bruising
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.
The proper position of a seat belt is below the anterior superior iliac spines and against the hip joints (C). A and B show incorrect positions.
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
Treatment for Evisceration
ABCs of Abdominal Injury

- Consider spinal immobilization
- Ensure patent airway; keep airway clear of vomitus
- Consider use of a BVM device
- Trauma to the kidneys, liver, and spleen can cause significant internal bleeding
- Evaluate and treat for shock
- Cover wounds and control bleeding
Focused History and Physical Exam

- Expose injured regions
  - Provide privacy as needed
- Allow patient to stay in position of comfort if there is no suspected spinal injury
- Use DCAP-BTLS
  - Swelling may indicate significant abdominal injury
  - In pediatric patients, the liver and spleen are more easily injured
- Inspect skin for wounds
  - Size of wound does not always correspond to extent of injury
  - If you find an entry wound, look for an exit wound
  - Stabilize an impaled object with supportive bandaging
- Be professional to help reduce patient’s anxiety
- Obtain baseline vital signs
- Obtain SAMPLE history
Interventions

- Manage airway and breathing problems
- Provide complete spinal stabilization if spinal injuries are suspected
- Treat aggressively for shock
- If an evisceration is discovered, place a moist, sterile dressing over the wound
- Never push an evisceration back into the abdomen
- Cover bleeding injuries to genitalia with moist, sterile dressing
- Do not delay transport
Anatomy of the Genitourinary System
Injuries of the Kidney

- 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
  - A hematoma in the flank region
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

Fracture of the pelvis can result in a laceration of the bladder.

![Diagram of bladder and pelvis](image)
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

FRONT VIEW
- Ovary
- Uterine (fallopian) tube
- Uterus
- Endometrium
- Cervical canal
- Cervix
- Vagina

SIDE VIEW
- Bladder
- Urethra
- Pubic bone
- Clitoris
- Labia
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.

- 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.
<table>
<thead>
<tr>
<th>Rectal Bleeding</th>
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<tr>
<td>• Common complaint</td>
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<td>• Blood may appear in undergarments or may be passed during a bowel movement.</td>
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<td>• Can be caused by sexual assault, hemorrhoids, colitis, or ulcers of the digestive tract</td>
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<td>• Acute bleeding should never be passed off as something minor</td>
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<td>• Pack the crease between the buttocks with compresses and consult with medical control</td>
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- Do not examine genitalia unless there is obvious bleeding
- The patient should not wash the area, defecate, eat, or drink until examined
- Offer to call the local rape crisis center
- Document carefully and preserve evidence