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Caring for Your Child **Abdominal Trauma - Non-Operative Management of Liver, Spleen, and Kidney**

Where are the liver and spleen and what do they do?

Liver – Located in the right upper abdomen

- The biggest organ in the abdomen and has many jobs including:
 - Makes a liquid called bile which helps breakdown food
 - Cleans the blood, to get rid of bacteria
 - Stores vitamins, iron, sugar, and minerals to provide the body with energy
 - Makes proteins to stop bleeding after cuts or injuries

Spleen – Found in the upper left abdomen, behind and below the stomach

- The spleen's jobs are to:
 - Clean and remove old blood cells and bacteria
 - Make red blood cells
 - Help the body fight infection

How do these organs get injured?

These injuries in children are often caused by blunt trauma, including car accidents, falls, sports accidents, or being hit with an object. Penetrating trauma (gunshot or stab wound) can also cause these injuries although these are less common in children.

What symptoms will my child have?

Symptoms may be slightly different depending on that organ that is injured, but some common symptoms include:

- Pain in the abdomen
- Guarding (Holding hand over the painful area)
- Sick feeling in the stomach or throwing up
- Loss of appetite
- Hard, bloated abdomen
- Pain in the left shoulder (Spleen injuries)

Your child can have an abdominal organ injury without visible damage to the skin, such as bruising or cuts.

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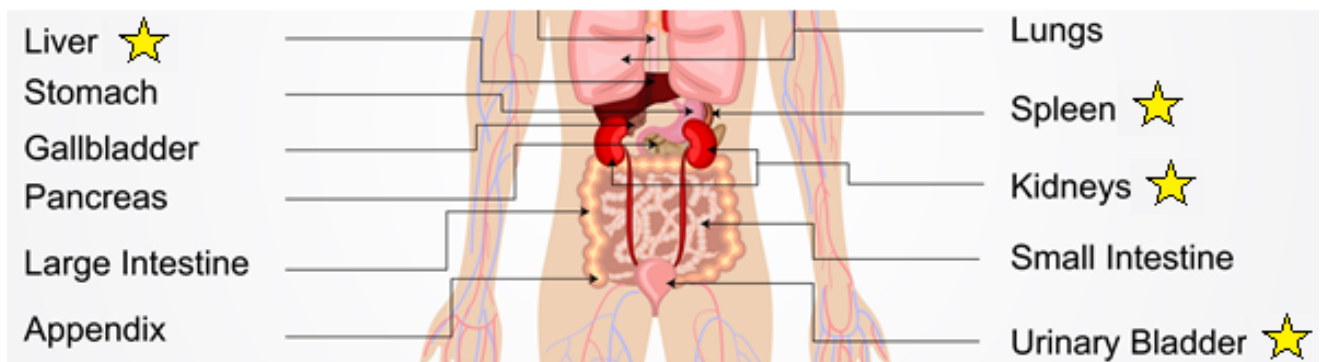
What about the Kidneys?

The kidneys are on each side of the spine, in the back and just above the waist.

- The kidneys clean the blood by removing toxins, waste, and extra water from the body.
- The kidneys are part of a system that includes the ureters, bladder, and urethra.
 - The ureters are small tubes that connect the kidneys to the bladder.
 - The kidneys make urine and send it through the ureters into the bladder.
 - The urine then goes from the bladder through a tube called the urethra to the outside of the body.

Children with kidney injuries may have:

- Pain in their back or abdomen
- Blood in their urine



How do you diagnose these injuries?

- **Chest CT/CAT Scan:** This test creates a three-dimensional (3D) picture of the abdominal organs and allows us to see which organs are injured and the extent of the injury. We rate injuries from grade 1 to grade 5, with 5 being the most severe.
- **Complete Blood Count (CBC):** Bloodwork to look for signs of bleeding
- **Renal/Bladder Ultrasound:** Sound waves are used to produce images of the organs, including the kidneys and bladder.

What treatment will my child need?

- Most children with these injuries are able to heal on their own and are carefully watched in the hospital for 1-3 days. During the hospitalization, your child may not be allowed to eat or get out of bed for a period of time.
- While your child is in the hospital, we will follow his blood test results, heart rate, blood pressure, breathing, and pain level for any signs of continued bleeding.
- If your child's injury is severe and he has a lot of blood in the abdomen, your child may need a blood transfusion or surgery.
- If your child has a severe kidney injury, a doctor from Urology will be asked to examine your child and help make a plan for his care.

How do I care for my child after discharge?

Please see the specific discharge instructions for your child in the discharge paperwork. It will tell you about activity restrictions and follow-up appointments.

Who do I call with questions after discharge?

For questions or concerns about your child during business hours, please call your child's pediatrician or the trauma clinic at 215-590-5932. If you have a question or concern on evenings, nights, or weekends, please call 215-590-1000 and ask the operator to page the Trauma Fellow on call.

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