Inguinal Hernia

FAST FACTS

2–5%
of all full-term newborns are born with inguinal hernia or communicating hydrocele

10–60%
of premature infants are born with inguinal hernia or communicating hydrocele, with increasing likelihood with earlier gestational age

5:1
boys:girls, but more similar ratios in preterm infants

45–55%
bilateral in premature infants

An inguinal hernia is present when there is an opening in the abdominal wall through which a hernia sac (*patent processus vaginalis*) protrudes from the abdominal cavity into the inguinal canal or scrotum. If the opening is small, only fluid can pass through (*communicating hydrocele*). If the opening is large enough, a part of the intestine can move into the hernia sac. Both hernias and communicating hydroceles are typically characterized by intermittent swelling of the scrotum that may extend into the groin. In pediatric patients, this is generally a congenital abnormality more common in boys than girls.

ASSESSMENT

Perform detailed history focused on description and timing of inguinal/scrotal swelling. Perform complete physical exam focused on abdomen and genitalia. Medical imaging (ultrasound) is unnecessary.

HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS

- Premature infant
- Presence of abdominal wall defects (gastroschisis, omphalocele)
- Sudden increase of inguinal/scrotal swelling
- Inability to reduce the hernia
- Discomfort, erythema, swelling, vomiting, new feeding intolerance

MANAGEMENT/TREATMENT

All pediatric inguinal hernias require operative treatment to prevent the development of complications, such as inguinal hernia incarceration or strangulation. Both open and laparoscopic repair are safe and effective options.
Refer for care (see below).

WHEN TO REFER

Refer all children with inguinal and/or scrotal swelling to Cincinnati Children's Pediatric Surgery or Urology to confirm diagnosis and enable timely correction.

If the hernia cannot be pushed back (reduced) into the abdominal cavity, suspect an incarcerated hernia and refer immediately to Cincinnati Children's Emergency Department. No further investigation or imaging studies are necessary prior to referral.

In children, groin pain without obvious swelling is usually not a sign of inguinal hernia, but other etiologies such as sports hernia (athletic pubalgia) can be considered at our evaluation as well.

If you have clinical questions about a patient with an inguinal hernia, call the Physician Priority Link® at 513-636-7997 or 1-888-987-7997.

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children's.

Tool developed by Cincinnati Children's physician-hospital organization (known as Tri-State Children's Health Services, Inc.) and staff in the James M. Anderson Center for Health Systems Excellence. Developed using expert consensus and informed by Best Evidence Statements, Care Practice Guidelines, and other evidence-based documents as available. For Evidence-Based Care Guidelines and references, see www.cincinnatichildrens.org/evidence.

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Inclusion Criteria

Inguinal hernia suspected

Patient Presents

Standard Workup

- History of Present Illness
- Family History
- Physical Exam

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Easily reducible
No other symptoms

Educate regarding signs/symptoms of incarceration:

- Pain
- Redness
- Vomiting
- irritability

Elective referral to Cincinnati Children's Urology or Pediatric Surgery (outpatient surgery)

Incarcerated
(not able to reduce, infant uncomfortable, etc.)

Send to ED/Priority link

Sedate/attempt at manually reducing hernia

Reduction successful

Surgical repair during same admission when swelling has subsided

Reduction not successful

Emergency hernia repair

For urgent issues, or to speak with the specialist on call 24/7, call the Physician Priority Link® at 1-888-987-7997.