

Ultrasound Protocol: Abdominal Wall Hernia

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Last Reviewed: 9/4/2025

Notes on exam codes: Abdominal wall umbilicus or above, finalized as limited abdomen; Spigelian hernia below umbilicus finalized as limited pelvis.

Notes on area to be scanned: Use a high frequency linear array transducer.

For midline hernias: Assess the midline from xyphoid process to just inferior to umbilicus.

For lateral hernias: Assess only the area(s) of interest, limited to 3 areas per exam.

List of Required Images

ABDOMINAL WALL EVALUATION

- **Transverse** – Complete documentation to include:
 - Images of area of interest **at rest**, minimum 1.
 - Images of area of interest **with Valsalva**, minimum 1.
 - CINE **at rest** superior-inferior through AOI (if hernia seen, perform as below).
 - CINE **with Valsalva** at AOI, probe stationary (if hernia seen, perform as below).
- **Sagittal** - Complete documentation to include:
 - Images of area of interest **at rest**, minimum 1.
 - Images of area of interest **with Valsalva**, minimum 1.
 - CINE **at rest** lateral-medial through AOI (if hernia seen, perform as below).
 - CINE **with Valsalva** at AOI, probe stationary (if hernia seen, perform as below).

ADDITIONAL IMAGES IF HERNIA SEEN

For midline hernias:

Document the largest 2 hernias and measure distance from umbilicus for each.

If more than 2 midline hernias, include a single transverse **cine** clip sup-inf to include all defects.

Measure the distance from most superior hernia to the umbilicus, if not one of the two largest.

Measure the distance from most inferior hernia to the umbilicus, if not one of the two largest.

- **Transverse** – Complete documentation to include:
 - Measure hernia defect/neck width.
 - Measure hernia sac contents width at maximum during rest (measure during Valsalva if hernia is only present during Valsalva).
 - CINE **at rest** superior-inferior through hernia neck and contents.
 - CINE **with Valsalva** at hernia neck assessing change in contents and mobility, probe stationary.
 - **Assess for Reducibility** – CINE in either Transverse or Sagittal with probe compression showing amount of reducibility.
- **Sagittal** - Complete documentation to include:
 - Measure defect/neck superior-inferior.
 - Measure hernia sac contents length and AP at maximum during rest (measure during Valsalva if hernia is only present during Valsalva).

- CINE **at rest** lateral-medial through hernia neck and contents.
- CINE **with Valsalva** at hernia neck assessing change in contents and mobility, probe stationary.
- **Assess for Reducibility** – CINE in either Transverse or Sagittal with compression showing amount of reducibility.

Document 4 features – Detail on worksheet:

- **Contents** of hernia sac: fat, bowel, fluid, any additional anatomy.
- **Size** of hernia defect (neck): transverse x sagittal.
- **Size** of total hernia sac in 3 dimensions. If hernia is reducible, then measurements should be during Valsalva.
- **Reducibility**: Describe as ONE of the following:
 - Not reducible
 - Partially reducible
 - Fully reducible with pressure
 - Spontaneously reducible

If any of the above are unclear, please note that on the worksheet.

S/P hernia repair without recurrent hernia: assess visible portions of mesh, including the edges.

- Add 1 image in either Transverse or Sagittal at edge of mesh.
- Add 1 CINE in either Transverse or Sagittal during Valsalva at edge of mesh.

Mass: If palpable concern corresponds to a mass, document per Pathology Protocol.

Common Indications for Ventral Hernia Ultrasound

- Abdominal bulge, mass, or pain.
- Periumbilical pain.