



## Sonographer Scanning Cheat Sheet: US Abd Ltd (US for Hernia Evaluation)

**Procedure Overview:** An Abd Limited US can be used to evaluate an area of concern for Hernia.  
(Umbilical area, Rt groin or Lt groin etc.)

### Required Pre-Procedure Prep:

- Obtain patient's verbal consent
- Obtain pertinent patient history including prior surgeries or procedures related to area of concern.
- Instruct the patient to lie supine and confirm the area of concern.

**Proper Probe:** Linear array transducer with Frequency range between 7-15 MHz.

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### Protocol for US: Hernia Evaluation (CPT code: 76705)

*This protocol aligns with the Mindray I-Works protocol: Abd Ltd: Hernia Evaluation*

#### **NOTE:**

- *You may "Suspend" the protocol at any time to take additional images or handle pathology, then restart I-Works.*
- *CINE clips to be labeled: "at rest" and "with Valsalva"*
- *Sagittal orientation:*
  - *the sweep should be "lateral to medial" or*
  - *"right lateral to left lateral" if crossing the midline.*
- *Transverse orientation:*
  - *the sweep should be "superior to inferior"*
- *Cine during Valsalva: US probe should remain as still as possible within the area of interest during Valsalva to properly demonstrate any protrusion of contents through the muscle layer.*
- *All Cine clips should be captured after all the still images have been taken.*

#### **Please Note:**

**If bowel protrusion is involved through the hernia neck:**

You will suspend the iWorks protocol and scan as indicated below before starting the Cine clips in the protocol sequence.

#### **For Groin Hernia Evaluation:**

Before starting your protocol images, Please capture 2 images of the contralateral groin with Valsalva for comparison

- Suspend the iWorks protocol
- Label screen contralateral groin (Rt or Lt)
- Capture 1 Still image Sag with Dual screen (at rest & with Valsalva)
- Capture 1 Still image Trv with Dual screen (at rest & with Valsalva)



**\*\*Document pathology with and without measurement in two planes, Sag and Trv measuring the length, height, & width. Be sure to also include images with and without color Doppler.**

***Cine Clips should be taken to help prove pathology and provide context for Remote Radiologists when appropriate. Please be mindful of not taking too many cine clips, just show what's most important.***

**Label screen for all images of exam : “Umbilical area” or “Rt groin” or “Lt groin”**

**Exam Order:**

- 1. Still image: Trv, sup to hernia evaluation**
- 2. Still image Trv, center of hernia evaluation**
- 3. Still image: Trv, inf to hernia evaluation**
- 4. Still image: Trv with Valsalva**
- 5. Still image: Trv with Valsalva (add meas): Trv measurement of neck defect & contents protrusion through muscle layer (if any)**
- 6. Still image: Sag, to the right of hernia evaluation**
- 7. Still image: Sag, center of hernia evaluation**
- 8. Still image: Sag, left of hernia evaluation**
- 9. Still image: Sag, with Valsalva**
- 10. Still image: Sag, with Valsalva (add meas): Sag & A/P measurements of contents protrusion through muscle layer (if any)**

**If Bowel protrusion is involved: Suspend iWorks protocol and image the following:**

- Still image: Color Doppler of Bowel loop(s) to demonstrate blood flow and status of peristalsis annotated**
- Still image: Dual screen image annotated “protrusion of bowel without compression” / “protrusion of bowel with compression” (to demonstrate reduction of hernia / ability of contents to return to cavity when probe pressure is applied)**

**Resume iWorks protocol**

- 11. Trv Cine: Sup to Inf over evaluation area (area at rest)**
- 12. Trv Cine: Trv over evaluation area (with Valsalva maneuver - probe still)**
- 13. Sag Cine: Rt to Lt over evaluation area (area at rest)**
- 14. Sag Cine: Sag over evaluation area (with Valsalva maneuver - probe still)**

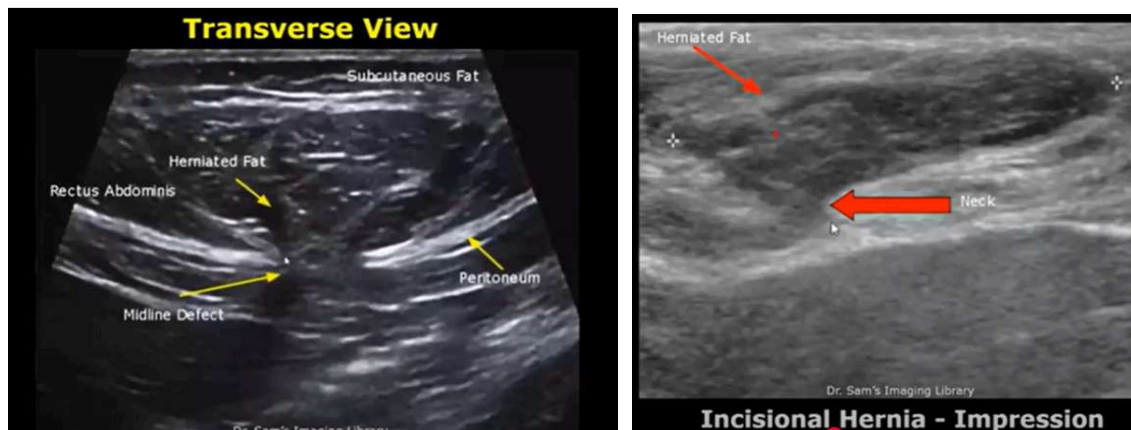
**\*\*Report any findings on your Comment section in the Report page on the machine using proper sonographic terminology.**

**Pathology for this exam**

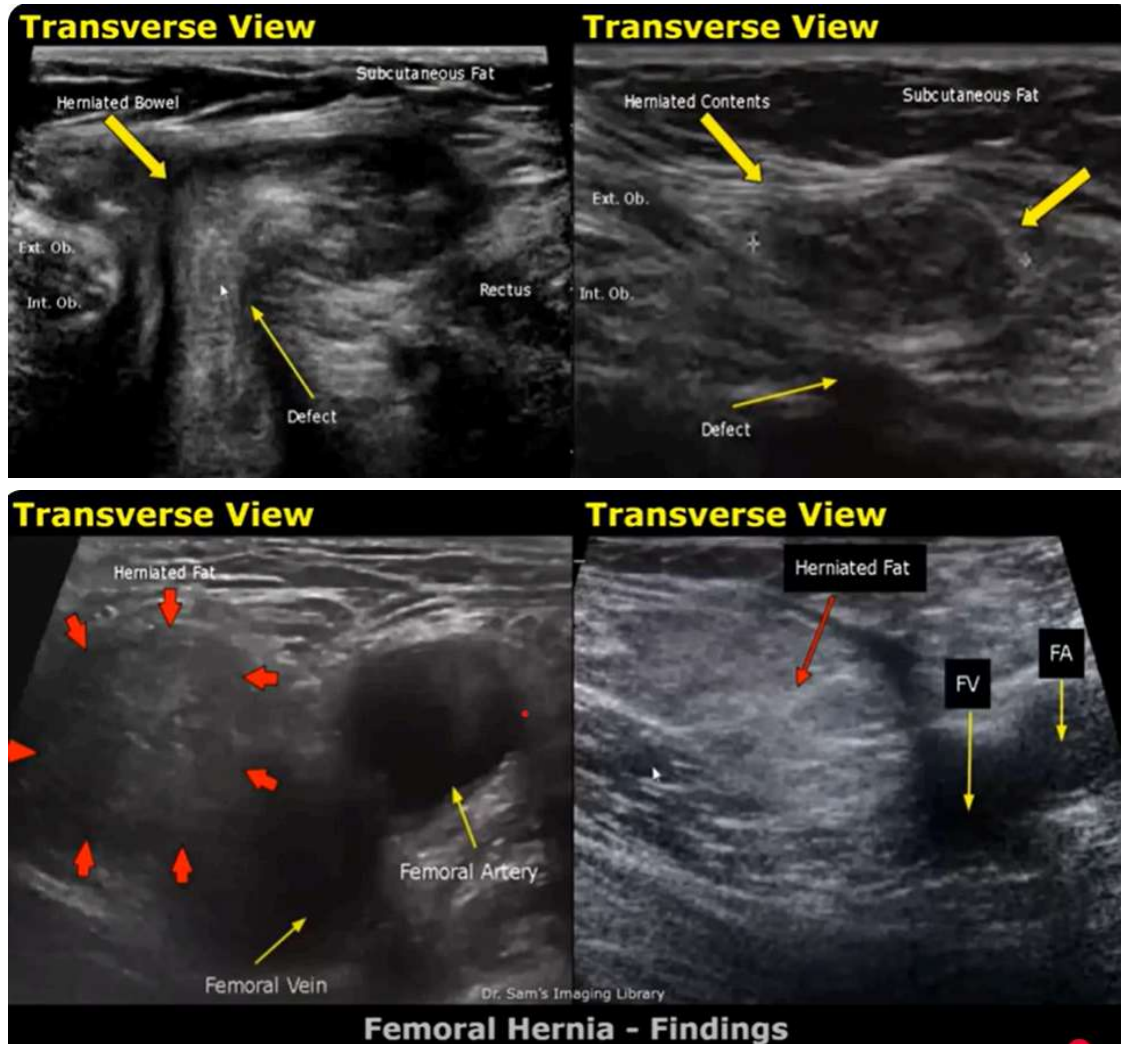
- Varying degree of splaying of muscle tissue during Valsalva.**
- Visceral fat or bowel protruding through the muscle layer during Valsava**

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See examples of Hernia images on the next page



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Images from YouTube: **Hernia Ultrasound Reporting | Direct/Indirect Inguinal/Epigastric/Femoral Hernia USG Report @DrSamsImagingLibrary**