



CLINICAL GUIDELINES

Pediatric Pelvis Imaging Guidelines

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EviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Imaging requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist, and/or individual's Primary Care Physician (PCP) may provide additional insight.

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General Guidelines (PEDPV-1)

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Procedure Codes Associated with Pelvis Imaging

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MRI	CPT®
MRI Pelvis without contrast	72195
MRI Pelvis with contrast (rarely used)	72196
MRI Pelvis without and with contrast	72197
Unlisted MRI procedure (for radiation planning or surgical software)	76498

MRA	CPT®
MRA Pelvis	72198

CT	CPT®
CT Abdomen and Pelvis without contrast	74176
CT Abdomen and Pelvis with contrast	74177
CT Abdomen and Pelvis without and with contrast	74178
CT Pelvis without contrast	72192
CT Pelvis with contrast	72193
CT Pelvis without and with contrast	72194
CT Guidance for Needle Placement (Biopsy, Aspiration, Injection, etc.)	77012
CT Guidance for and monitoring of Visceral Tissue Ablation	77013

CT	CPT®
CT Guidance for Placement of Radiation Therapy Fields	77014
Unlisted CT procedure (for radiation planning or surgical software)	76497

CTA	CPT®
CTA Abdomen and Pelvis	74174
CTA Pelvis	72191

Nuclear Medicine	CPT®
PET Imaging; limited area (this code not used in pediatrics)	78811
PET Imaging; skull base to mid-thigh (this code not used in pediatrics)	78812
PET Imaging; whole body (this code not used in pediatrics)	78813
PET with concurrently acquired CT; limited area (this code rarely used in pediatrics)	78814
PET with concurrently acquired CT; skull base to mid-thigh	78815
PET with concurrently acquired CT; whole body	78816
Urinary Bladder Residual Study	78730
Ureteral Reflux Study (Radiopharmaceutical Voiding Cystogram)	78740
Testicular Scan – Vascular Flow and Delayed Images	78761
Radiopharmaceutical Imaging of Lymphatic System	78195
Radiopharmaceutical Localization Imaging Limited area	78800
Radiopharmaceutical Localization Imaging Whole Body	78802

Nuclear Medicine		CPT®
Radiopharmaceutical Localization Imaging SPECT		78803
Ultrasound		CPT®
Ultrasound, pelvic (nonobstetric), complete		76856
Ultrasound, pelvic transvaginal		76830
Ultrasound, pelvic (nonobstetric), limited or follow-up		76857
Ultrasound, scrotum and contents		76870
Duplex scan of arterial inflow and venous outflow of abdominal, pelvic, scrotal contents and/or retroperitoneal organs; complete study		93975
Duplex scan of arterial inflow and venous outflow of abdominal, pelvic, scrotal contents and/or retroperitoneal organs; limited study		93976
Duplex scan of aorta, inferior vena cava, iliac vasculature, or bypass grafts; complete		93978
Duplex scan of aorta, inferior vena cava, iliac vasculature, or bypass grafts; limited		93979
Duplex scan of arterial inflow and venous outflow of penile vessels; complete		93980
Duplex scan of arterial inflow and venous outflow of penile vessels; limited study		93981

General Guidelines (PEDPV-1.0)

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- A pertinent clinical evaluation since the onset or change in symptoms, including a detailed history, physical examination, appropriate laboratory studies, and basic imaging such as plain radiography or ultrasound should be performed prior to considering advanced imaging (CT, MRI, Nuclear Medicine), unless the individual is undergoing guideline-supported scheduled imaging evaluation. A meaningful technological contact (telehealth visit, telephone call, electronic mail or messaging) since the onset or change in symptoms can serve as a pertinent clinical evaluation.
- Unless otherwise stated in a specific guideline section, the use of advanced imaging to screen asymptomatic individuals for disorders involving the pelvis is not supported. Advanced imaging of the pelvis is only indicated in individuals who have documented active clinical signs or symptoms of disease involving the pelvis.
- Unless otherwise stated in a specific guideline section, repeat imaging studies of the pelvis are not necessary unless there is evidence for progression of disease, new onset of disease, and/or documentation of how repeat imaging will affect individual management or treatment decisions.
- Ultrasound
 - Ultrasound should be the initial imaging in most pelvic conditions to rule out those situations that do not require additional advanced imaging.
 - For those individuals who do require advanced imaging after ultrasound, ultrasound can be very beneficial in selecting the proper modality, body area, image sequences, and contrast level that will provide the most definitive information for the individual.
 - CPT® codes vary by body area and presence or absence of Doppler imaging and are included in the table at the beginning of this guideline.
 - Transabdominal ultrasound is appropriate in all pediatric individuals.
 - Transvaginal (TV) ultrasound is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Ultrasound (complete CPT® 76856 or, limited CPT® 76857) should substitute for TV in pediatric individuals or non-sexually active adult females

Pediatric Pelvis Imaging Age Considerations (PEDPV-1.1)

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Many conditions affecting the pelvis in the pediatric population are different diagnoses than those occurring in the adult population. For those diseases which occur in both pediatric and adult populations, differences may exist in management due to individual age, comorbidities, and differences in disease natural history between children and adults.

- Individuals who are age 18 years or younger should be imaged according to the Pediatric Pelvis Imaging Guidelines if discussed. Any conditions not specifically discussed in the Pediatric Pelvis Imaging Guidelines should be imaged according to the General Pelvis Imaging Guidelines. Individuals who are >19 years should be imaged according to the General Pelvis Imaging Guidelines, except where directed otherwise by a specific guideline section.

Pediatric Pelvis Imaging Modality General Considerations (PEDPV-1.3)

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- Ultrasound
 - See **General Guidelines (PEDPV-1.0)**
- MRI
 - MRI Pelvis is generally performed without and with contrast (CPT® 72197) unless the individual has a documented contraindication to gadolinium or otherwise stated in a specific guideline section.
 - Due to the length of time required for MRI acquisition and the need to minimize individual movement, anesthesia is usually required for almost all infants (except neonates) and young children (age <7 years) as well as older children with delays in development or maturity. This anesthesia may be administered via oral or intravenous routes. In this individual population, MRI sessions should be planned with a goal of minimizing anesthesia exposure by adhering to the following considerations:
 - MRI procedures can be performed without and/or with contrast use as supported by these condition-based guidelines. If intravenous access will already be present for anesthesia administration and there is no contraindication for using contrast, imaging without and with contrast may be appropriate if requested. By doing so, the requesting provider may avoid repetitive anesthesia administration to perform an MRI with contrast if the initial study without contrast is inconclusive.
 - Evidence-based literature demonstrates the potential for gadolinium deposition in various organs including the brain, after the use of MRI contrast.
 - The U.S. Food and Drug Administration (FDA) has noted that there is currently no evidence to suggest that gadolinium retention in the brain is harmful and restricting gadolinium-based contrast agents (GBCAs) use is not warranted at this time. It has been recommended that GBCA use should be limited to circumstances in which additional information provided by the contrast agent is necessary and the necessity of repetitive MRIs with GBCAs should be assessed.
 - If multiple body areas are supported by the guidelines for the clinical condition being evaluated, MRI of all necessary body areas should be obtained concurrently in the same anesthesia session.
 - The presence of surgical hardware or implanted devices may preclude MRI.

- The selection of best examination may require coordination between the provider and the imaging service.
- CT
 - CT Pelvis typically extends from the iliac crest to the ischial tuberosities, and CT Abdomen and Pelvis extends from the dome of the diaphragm through the ischial tuberosities.
 - In general, CT Pelvis is appropriate when evaluating solid pelvic organs.
 - In general, CT Abdomen and Pelvis is appropriate when evaluating inflammatory or infections processes, hematuria, or conditions which appear to involve both the abdomen and the pelvis.
 - In some cases, especially in follow-up of a known finding, it may be appropriate to limit the exam to the region of concern to reduce radiation exposure.
 - The contrast level in pediatric CT imaging is specific to the clinical indication, as listed in the specific guideline sections.
 - CT Pelvis or Abdomen and Pelvis may be indicated for further evaluation of abnormalities suggested on prior US or MRI Procedures.
 - CT may be appropriate without prior MRI or US, as indicated in specific sections of these guidelines.
 - CT should not be used to replace MRI in an attempt to avoid sedation unless listed as a recommended study in a specific guideline section.
 - The selection of best examination may require coordination between the provider and the imaging service.
- Nuclear Medicine
 - Nuclear medicine studies are rarely used in imaging of the pediatric pelvis but are indicated in rare circumstances, including the following:
 - Lymph system mapping (CPT® 78195) is indicated for lower extremity lymphedema with recent negative Doppler ultrasound, or a history of Milroy's disease or prior pelvic lymph node dissection.
- 3D Rendering
 - 3D Rendering indications in pediatric pelvis imaging are identical to those in the general imaging guidelines. See **3D Rendering (Preface-4.1)** in the Preface Imaging Guidelines

The guidelines listed in this section for certain specific indications are not intended to be all-inclusive; clinical judgment remains paramount and variance from these guidelines may be appropriate and warranted for specific clinical situations.

References (PEDPV-1)

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1. Berland LL, Cernigliaro JG, Ho VB, et al. ACR Practice parameter for performing and interpreting magnetic resonance imaging (MRI). *American College of Radiology*. Revised 2017
2. Faerber EN, Abramson SJ, Benator RM, et al. ACR–ASER–SCBT–MR–SPR Practice parameter for the performance of pediatric computed tomography (CT). *American College of Radiology*. Revised 2014
3. Reighard C, Junaid S, Jackson WM, et al. Anesthetic Exposure During Childhood and Neurodevelopmental Outcomes: A Systematic Review and Meta-analysis. *JAMA Netw Open*. 2022;5(6):e2217427. Published 2022 Jun 1. doi:10.1001/jamanetworkopen.2022.17427
4. Macdonald A, Burrell S. Infrequently Performed Studies in Nuclear Medicine: Part 2. *Journal of Nuclear Medicine Technology*. 2009;37(1):1-13. doi:10.2967/jnmt.108.057851
5. FDA Drug Safety Communication: FDA identifies no harmful effects to date with brain retention of gadolinium-based contrast agents for MRIs; review to continue. FDA Drug Safety Communication. May 22, 2017
6. Siegel MJ. *Pediatric Sonography*. 5th ed. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins; 2018:513-556.
7. Fraum TJ, Ludwig DR, Bashir MR, Fowler KJ. Gadolinium-based contrast agents: A comprehensive risk assessment. *Journal of Magnetic Resonance Imaging*. 2017;46(2):338-353. doi:10.1002/jmri.25625
8. Update on FDA approach to safety issue of gadolinium retention after administration of gadolinium-based contrast agents available at <https://www.fda.gov/media/116492/download>
9. Implementation Guide: Medicaid State Plan Eligibility Eligibility Groups Mandatory Coverage Infants and Children under Age 19 Guidance Portal. <https://www.hhs.gov/guidance/document/implementation-guide-medicaid-state-plan-eligibility-eligibility-groups-aeu-mandatory-2>

Abnormal Uterine Bleeding (PEDPV-2)

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Abnormal Uterine Bleeding (PEDPV-2.1)

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- Abnormal uterine bleeding imaging indications in pediatric individuals are very similar to those for adult individuals. See **Abnormal Uterine Bleeding (AUB) (PV-2.1)** in the Pelvis Imaging Guidelines.
- Pediatric-specific imaging considerations include the following:
 - Transabdominal ultrasound is appropriate in all pediatric individuals.
 - Transvaginal (TV) ultrasound is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Transvaginal ultrasound is generally not appropriate in pediatric individuals or in individuals who have never been sexually active.
 - MRI Pelvis without contrast or without and with contrast (CPT® 72195 or CPT® 72197) is indicated if ultrasound is inconclusive.

Background and Supporting Information

The causes of vaginal bleeding in children differ from those in adolescents. Vaginal bleeding after the first week or so of life but before menarche is always abnormal and warrants evaluation. Common conditions before normal menarche include vaginal foreign bodies, infections, precocious puberty, and estrogen exposure. After menarche, pregnancy and excessive menstrual bleeding (ovulatory dysfunction) must be considered.

References (PEDPV-2)

v1.0.2025

1. Emans SJ, Laufer MR. Precocious Puberty. In: *Emans, Laufer, Goldstein's Pediatric and Adolescent Gynecology*. 7th ed. Wolters Kluwer Health; 2019:114-124.
2. Upadhyia KK, Sucato GS. Abnormal Uterine Bleeding. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*, 21st ed. 2020:1060-1062.

Pelvic Inflammatory Disease (PID) (PEDPV-3)

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Pelvic Inflammatory Disease (PID) (PEDPV-3.1)

PVP.ID.0003.1.A

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- Pelvic inflammatory disease imaging indications in pediatric individuals are very similar to those for adult individuals. See **Pelvic Inflammatory Disease (PV-7.1)** in the Pelvis Imaging Guidelines.
- Pediatric-specific imaging considerations include the following:
 - Transabdominal ultrasound is appropriate in all pediatric individuals.
 - Transvaginal (TV) ultrasound is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Transvaginal ultrasound is generally not appropriate in individuals who are pre-pubescent or victims of abuse.
 - MRI Pelvis without contrast (CPT® 72195) or without and with contrast (CPT® 72197) is indicated if ultrasound is inconclusive.
 - CT Pelvis with contrast (CPT® 72193) is indicated if MRI is not readily available.

References (PEDPV-3)

v1.0.2025

1. Burstein GR. Sexually transmitted infections. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*. 21st ed. 2020:1081-1091
2. Cohen HL, Raju AD. Abnormalities of the female genital tract. In: Coley B, Saunders E, eds. *Caffey's Pediatric Diagnostic Imaging*. Philadelphia PA, 2019:1201-1211
3. Caprio MG, Serafino MD, Feo AD, et al. Ultrasonographic and multimodal imaging of pediatric genital female diseases. *Journal of Ultrasound*. 2019;22(3):273-289. doi:10.1007/s40477-019-00358-5

Amenorrhea (PEDPV-4)

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Amenorrhea (PEDPV-4.1)

PVP.AA.0004.1.A

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- Females with primary amenorrhea and any of the following should be evaluated initially with pelvic ultrasound (CPT® 76856 or CPT® 76857):
 - Amenorrhea is usually primary and refers to absence of menstrual periods by age 16.
 - Normal pubertal development and negative pregnancy test.
 - Transabdominal ultrasound is appropriate in all pediatric individuals.
 - Transvaginal (TV) ultrasound is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Transvaginal ultrasound (CPT® 76830) is indicated for better view of genitourinary anomalies in sexually active females.
 - Delayed puberty with follicle-stimulating hormone (FSH) or luteinizing hormone (LH) that is elevated for the individual's age and Tanner stage.
- MRI Pelvis without contrast or without and with contrast (CPT® 72195 or CPT® 72197) and/or MRI Abdomen without contrast or without and with contrast (CPT® 74181 or CPT® 74183) are indicated for congenital anomalies or for pre-operative planning.

References (PEDPV-4)

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1. Langer JE, Oliver ER, Lev-Toaff AS, Coleman BG. Imaging of the Female Pelvis through the Life Cycle. *RadioGraphics*. 2012;32(6):1575-1597. doi:10.1148/rg.326125513
2. Upadhy KK, Suscato GS. Amenorrhea. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*. 21st ed. Elsevier. 2019:1059-1060.
3. Cohen HL, Raju AD. Amenorrhea and abnormalities of puberty. In: Coley B, Saunders E, eds. *Caffey's Pediatric Diagnostic Imaging*. 13th ed. Elsevier. 2019:12.
4. Behr SC, Courtier JL, Qayyum A. Imaging of Müllerian Duct Anomalies. *RadioGraphics*. 2012;32(6). doi:10.1148/rg.326125515
5. Caprio MG, Serafino MD, Feo AD, et al. Ultrasonographic and multimodal imaging of pediatric genital female diseases. *Journal of Ultrasound*. 2019;22(3):273-289. doi:10.1007/s40477-019-00358-5

Endometriosis (PEDPV-5)

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Endometriosis (PEDPV-5.1)

PVP.EM.0005.1.A

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- Endometriosis imaging indications in pediatric individuals are very similar to those for adult individuals. See **Endometriosis (PV-6.1)** in the Pelvis Imaging Guidelines.
- Pediatric-specific imaging considerations include:
 - Transabdominal ultrasound is appropriate in all pediatric individuals.
 - Transvaginal (TV) ultrasound is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Transvaginal ultrasound is generally not appropriate in individuals who are pre-pubescent or have never been sexually active.

Reference (PEDPV-5)

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1. Upadhyia KK, Suscato GS. Dysmenorrhea. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*, 21st ed. 2020:1062-1063.

Suspected Adnexal Mass (PEDPV-6)

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Suspected Adnexal Mass (PEDPV-6.1)

PVP.AM.0006.1.A

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- Suspected adnexal mass imaging indications in pediatric individuals are very similar to those for adult individuals. See **Adnexal Mass/Ovarian Cysts (PV-5)** in the Pelvis Imaging Guidelines. Ultrasound is the first study indicated for evaluation of a suspected adnexal mass.
- Pediatric-specific imaging considerations include the following:
 - Transabdominal ultrasound is appropriate in all pediatric individuals.
 - Transvaginal (TV) Ultrasound is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Transvaginal ultrasound is generally not appropriate in individuals who are pre-pubescent or have never been sexually active.
 - Adnexal masses with a solid component in individuals, age ≥ 15 years, should be imaged according to **Pediatric Germ Cell Tumors (PEDONC-10)** in the Pediatric and Special Populations Oncology Imaging Guidelines.

References (PEDPV-6)

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1. Allen-Rhoades WA and Steuber CP. Clinical assessment and differential diagnosis of the child with suspected cancer. In: Pizzo PA and Poplack DG, eds. *Principles and Practice of Pediatric Oncology*. 2016;7:101-111
2. Kelleher CM, Goldstein AM. Adnexal Masses in Children and Adolescents. *Clinical Obstetrics and Gynecology*. 2015;58(1):76-92. doi:10.1097/grf.0000000000000084
3. Caprio MG, Serafino MD, Feo AD, et al. Ultrasonographic and multimodal imaging of pediatric genital female diseases. *Journal of Ultrasound*. 2019;22(3):273-289. doi:10.1007/s40477-019-00358-5

Pelvic Pain/ Dyspareunia, and Ovarian Torsion (PEDPV-7)

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Pelvic Pain/Dyspareunia, and Ovarian Torsion (PEDPV-7.1)

PVP.PP.0007.1.A

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- Pelvic Pain/Dyspareunia imaging indications in pediatric individuals are identical to those for adult individuals. See **Pelvic Pain/Dyspareunia, Female (PV-11.1)** in the Pelvis Imaging Guidelines.
- Ovarian torsion in children is typically associated with a normal ovary. Spontaneous torsion of a normal ovary is more common than torsion caused by a lead mass, such as a cyst or tumor. Torsion involves both the ovary and fallopian tube and typically presents with acute onset of lower abdominal pain, often associated with nausea or vomiting.
 - Transabdominal ultrasound (CPT® 76856) with Doppler (CPT® 93975) is appropriate in all pediatric individuals.
 - Transvaginal (TV) ultrasound (CPT® 76830) with Doppler (CPT® 93975) is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Transvaginal ultrasound is generally not appropriate in individuals who are pre-pubescent or have never been sexually active.

References (PEDPV-7)

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1. Naffaa L, Deshmukh T, Tumu S, Johnson C, Boyd KP, Meyers AB. Imaging of Acute Pelvic Pain in Girls: Ovarian Torsion and Beyond. *Current Problems in Diagnostic Radiology*. 2017;46(4):317-329. doi:10.1067/j.cpradiol.2016.12.010
2. Siegel MJ. *Pediatric Sonography*. 5th ed. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins; 2018:513-556
3. Sintim-Damoa A, Majmudar AS, Cohen HL, Parvey LS. Pediatric Ovarian Torsion: Spectrum of Imaging Findings. *RadioGraphics*. 2017;37(6):1892-1908. doi:10.1148/rg.2017170026
4. Cohen HL, Raju AD. Abnormalities of the female genital tract. In: Coley B, Saunders E, eds. *Caffey's Pediatric Diagnostic Imaging*. Philadelphia PA, 2019:1201-1211
5. Caprio MG, Serafino MD, Feo AD, et al. Ultrasonographic and multimodal imaging of pediatric genital female diseases. *Journal of Ultrasound*. 2019;22(3):273-289. doi:10.1007/s40477-019-00358-5
6. Ssi-Yan-Kai G, Rivain A-L, Trichot C, et al. What every radiologist should know about adnexal torsion. *Emergency Radiology*. 2017;25(1):51-59. doi:10.1007/s10140-017-1549-8

Polycystic Ovary Syndrome (PEDPV-8)

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Polycystic Ovary Syndrome (PEDPV-8.1)

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- Polycystic ovary syndrome imaging indications in pediatric individuals are very similar to those for adult individuals. See **Polycystic Ovary Syndrome (PCOS) (PV-8.1)** in the Pelvis Imaging Guidelines.
- Pediatric-specific imaging considerations include:
 - Transabdominal ultrasound (CPT® 76856) is appropriate in all pediatric individuals.
 - Transvaginal (TV) ultrasound (CPT® 76830) is appropriate in pediatric individuals who are sexually active or use a tampon and consent to the study. Transvaginal ultrasound is generally not appropriate in individuals who are pre-pubescent or have never been sexually active.

Background and Supporting Information

Adolescent girls may have multiple ovarian cysts as part of normal pubertal development. As such the diagnosis should not be based on morphology alone, but requires abnormal laboratory studies.

References (PEDPV-8)

v1.0.2025

1. Fondin M, Rachas A, Huynh V, et al. Polycystic Ovary Syndrome in Adolescents: Which MR Imaging–based Diagnostic Criteria? *Radiology*. 2017;285(3):961-970. doi:10.1148/radiol.2017161513
2. Cohen HL, Raju AD. Abnormalities of the female genital tract. In: Coley B, Saunders E, eds. *Caffey's Pediatric Diagnostic Imaging*. Philadelphia PA, 2019:1201-1211
3. Huddleston HG, Quinn M, Gibson M. Polycystic Ovary Syndrome and Hirsutism. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*, 21st ed. 2020:2857-2861
4. DiVall S, Merjaneh L. Adolescent Polycystic Ovary Syndrome: An Update. *Pediatric Annals*. 2019;48(8):e304-e310. doi:10.3928/19382359-20190729-01
5. Baldauff NH, Witchel SF. Polycystic ovary syndrome in adolescent girls. *Current Opinion in Endocrinology, Diabetes and Obesity*. 2017 Feb 1;24(1):56-66.

Periurethral Cysts and Urethral Diverticula (PEDPV-9)

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Periurethral Cysts and Urethral Diverticula (PEDPV-9.1)

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- Periurethral cysts and urethral diverticula imaging indications in pediatric individuals are identical to those for adult individuals. See **Periurethral Cysts and Urethral Diverticula (PV-13)** in the Pelvis Imaging Guidelines.

Fetal MRI (PEDPV-10)

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Fetal MRI (PEDPV-10.1)

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- Fetal MRI indications in pediatric individuals are identical to those for adult individuals. See **Fetal MRI (PV-15.1)** in the Pelvis Imaging Guidelines.

Undescended Testis (PEDPV-11)

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Undescended Testis (PEDPV-11.1)

PVP.UT.0011.1.A

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- Males with a history of cryptorchidism (undescended testis) have a several-fold risk increase of testicular cancer. It is important to diagnose and treat this condition either by bringing the undescended testis into the scrotum, or resecting the testis.
- Pediatric-specific imaging considerations include the following:
 - Suspected undescended testis is an indication for referral to a surgical subspecialist who should make the decision or be consulted on necessary imaging studies.
- After surgical evaluation or consultation, the following imaging is indicated for pre-operative evaluation:
 - Scrotal ultrasound (CPT® 76870) if testis not palpable in the scrotal sac and there is concern for retractile or inguinal testis. In general CT and MRI are not indicated to localize non-palpable testes, as the findings would typically not alter the surgical procedure.
 - If after ultrasound there is concern for associated urogenital abnormalities, or the surgical consultant or any provider in consultation with the surgical consultant indicates that advanced imaging results would significantly alter the surgical procedure either of the studies below are indicated:
 - MRI Abdomen (CPT® 74183) and Pelvis (CPT® 72197) without and with contrast
 - CT Abdomen and Pelvis with contrast (CPT® 74177)

References (PEDPV-11)

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1. Kolon TF, Herndon CDA, Baker LA, et al. Evaluation and treatment of cryptorchidism: AUA Guideline, Copyright © 2018 American Urological Association Education and Research, Inc.®
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Scrotal Pathology (PEDPV-12)

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Scrotal Pathology (PEDPV-12.1)

PVP.SP.0012.1.A

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- Scrotal pathology imaging indications in pediatric individuals are very similar to those for adult individuals. See **Scrotal Pathology (PV-20.1)** in the Pelvis Imaging Guidelines.
- Pediatric-specific imaging considerations include the following:
 - Scrotal US (CPT® 76870) with Doppler (CPT® 93975 or CPT® 93976) is indicated for concerns of testicular torsion.
 - MRI Pelvis without contrast (CPT® 72195) or without and with contrast (CPT® 72197) is indicated if torsion is unlikely on ultrasound and no surgical exploration is planned. MRI is not typically used for the acute scrotum due to the limited availability of equipment and the long examination time involved.
 - Since the acceptance of Doppler US as the primary imaging for evaluation of acute scrotum, scintigraphy is not indicated. The unavailability of nuclear medicine imaging in many practices and its use of ionizing radiation, its poor anatomical details, and the time required for imaging are other limiting factors.

References (PEDPV-12)

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Penis-Soft Tissue Mass (PEDPV-13)

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Penis-Soft Tissue Mass (PEDPV-13.1)

PVP.ST.0013.1.A

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- Penile soft tissue masses are very rare in pediatric individuals, and imaging indications are identical to those for adult individuals. See **Penis-Soft Tissue Mass (PV-18.1)** in the Pelvis Imaging Guidelines.

Incontinence (PEDPV-14)

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Incontinence (PEDPV-14.1)

PVP.IN.0014.1.A

v1.0.2025

- Incontinence imaging indications in pediatric individuals are very similar to those for adult individuals. See **Urinary Incontinence/Pelvic Prolapse/Fecal Incontinence (PV-22)** in the Pelvis Imaging Guidelines.
- Most often incontinence in children is not due to a medical condition. Several uncommon disorders that can lead to urinary incontinence include a spinal cord defect such as spina bifida, ureteral duplication with ectopic insertion, and overactive bladder or dysfunctional voiding.
- No imaging is needed if primary enuresis is suspected; however, imaging evaluation may be warranted if ureteral duplication or overactive bladder or dysfunctional voiding is suspected. The physician should obtain a full medical history and urinalysis before imaging is done.
- Radiopharmaceutical urinary bladder residual study (CPT® 78730) is indicated for suspicion of urinary retention and a recent non-diagnostic ultrasound.
- Pediatric-specific imaging considerations include the following:
 - MRI Pelvis without and with contrast (CPT® 72197) is indicated if ultrasound is inconclusive or spinal abnormality is suspected.
 - CT Pelvis with contrast (CPT® 72193) is appropriate if MRI is not readily available.

References (PEDPV-14)

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Patent Urachus (PEDPV-15)

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Patent Urachus (PEDPV-15.1)

PVP.UR.0015.1.A

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- Ultrasound pelvis (CPT® 76856) is indicated as the initial evaluation for patent urachus.
 - ANY of the following are indicated if the ultrasound is inconclusive or insufficient for preoperative planning:
 - MRI Pelvis without contrast (CPT® 72195)
 - MRI Pelvis without and with contrast (CPT® 72197)
 - CT Pelvis with contrast (CPT® 72193)
- Repeat imaging of asymptomatic individuals is not generally necessary, but is indicated for the following:
 - New or worsening symptoms
 - Preoperative planning

Background and Supporting Information

The urachus is a “tube” connecting the fetal bladder to the umbilical cord. It is usually obliterated during fetal growth, but if it remains patent, there can be a complete or partial connection between the bladder and the umbilicus.

Ultrasound has an accuracy greater than 90%.

References (PEDPV-15)

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