CIGNA MEDICAL COVERAGE POLICIES - RADIOLOGY

Pediatric Pelvis Imaging Guidelines

Effective Date: February 1, 2025

Instructions for use

The following coverage policy applies to health benefit plans administered by Cigna. Coverage policies are intended to provide guidance in interpreting certain standard Cigna benefit plans and are used by medical directors and other health care professionals in making medical necessity and other coverage determinations. Please note the terms of a customer's particular benefit plan document may differ significantly from the standard benefit plans upon which these coverage policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a coverage policy.

In the event of a conflict, a customer's benefit plan document always supersedes the information in the coverage policy. In the absence of federal or state coverage mandates, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of:

1. The terms of the applicable benefit plan document in effect on the date of service
2. Any applicable laws and regulations
3. Any relevant collateral source materials including coverage policies
4. The specific facts of the particular situation

Coverage policies relate exclusively to the administration of health benefit plans. Coverage policies are not recommendations for treatment and should never be used as treatment guidelines.

This evidence-based medical coverage policy has been developed by EviCore, Inc. Some information in this coverage policy may not apply to all benefit plans administered by Cigna.

These guidelines include procedures EviCore does not review for Cigna. Please refer to the **Cigna CPT code list** for the current list of high-tech imaging procedures that EviCore reviews for Cigna.

Table of Contents

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

General Guidelines (PEDPV-1)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Procedure Codes Associated with Pelvis Imaging

PVP.GG.ProcedureCodes.C
v1.0.2025

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

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

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

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

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

General Guidelines (PEDPV-1.0)

PVP.GG.0001.0.A

v1.0.2025

- 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

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Pediatric Pelvis Imaging Age Considerations (PEDPV-1.1)

PVP.GG.0001.1.A
v1.0.2025

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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Pediatric Pelvis Imaging Modality General Considerations (PEDPV-1.3)

PVP.GG.0001.3.C
v1.0.2025

- 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

- 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.
- 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)

v1.0.2025

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)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Abnormal Uterine Bleeding (PEDPV-2.1)

PVP.UB.0002.1.C

v1.0.2025

- 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:
  - Transvaginal ultrasound is generally not appropriate 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. Upadhya 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Pelvic Inflammatory Disease (PID) (PEDPV-3)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Pelvic Inflammatory Disease (PID) (PEDPV-3.1)

PVP.ID.0003.1.C

v1.0.2025

- 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:
  - 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

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)

Guideline Page

Amenorrhea (PEDPV-4.1)

PVP.AA.0004.1.C

v1.0.2025

- Females with primary amenorrhea and any of the following should be evaluated initially with pelvic ultrasound (CPT® 76856 or CPT® 76857):
  - Normal pubertal development and negative pregnancy test.
    - Transavaginal 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

References (PEDPV-4)

v1.0.2025

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. Upadhya 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)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Endometriosis (PEDPV-5.1)

PVP.EM.0005.1.C

v1.0.2025

- 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:
  - Transvaginal ultrasound is generally not appropriate in individuals who are pre-pubescent or have never been sexually active.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Reference (PEDPV-5)

v1.0.2025

1. Upadhya 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Suspected Adnexal Mass (PEDPV-6)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Suspected Adnexal Mass (PEDPV-6.1)

PVP.AM.0006.1.C

v1.0.2025

- 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:
  - 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)

v1.0.2025

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

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

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

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

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

PVP.PP.0007.1.A

v1.0.2025

- 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 of 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

References (PEDPV-7)

v1.0.2025

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

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Polycystic Ovary Syndrome (PEDPV-8)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Polycystic Ovary Syndrome (PEDPV-8.1)

PVP.OS.0008.1.A
v1.0.2025

- 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Periurethral Cysts and Urethral Diverticula (PEDPV-9)

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Periurethral Cysts and Urethral Diverticula (PEDPV-9.1)

PVP.CD.0009.1.A

v1.0.2025

- 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.

Undescended Testis (PEDPV-11)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Undescended Testis (PEDPV-11.1)

PVP.UT.0011.1.C
v1.0.2025

- 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).

Background and Supporting Information

- 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

References (PEDPV-11)

v1.0.2025

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.®
2. Inappropriate Use of Ultrasound in Management of Pediatric Cryptorchidism. *Pediatrics*. 2015;136(3). doi:10.1542/peds.2015-0222d
3. Elder JS. Disorders and anomalies of the scrotal contents. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*, 21st ed. 2020:2827-2833.
4. Poppas DP and Medina C. *Undescended testicle or cryptorchidism*. Cornell University Institute for Pediatric Urology
5. Krishnaswami S, Fonnesbeck C, Penson D, Mcpheeters ML. Magnetic Resonance Imaging for Locating Nonpalpable Undescended Testicles: A Meta-analysis. *Pediatrics*. 2013;131(6). doi:10.1542/peds.2013-0073
6. Aggarwal H, Rehfuss A, Hollowell J. Management of undescended testis may be improved with educational updates for referring providers. *Journal of Pediatric Urology*. 2014;10(4):707-711. doi:10.1016/j.jpurol.2013.10.025
7. Cohen HL, Miller SF. Abnormalities of the male genital tract. In: Coley B, Saunders E, eds. *Caffey's Pediatric Diagnostic Imaging*. Philadelphia, PA. 2019:1193-1200
8. Gates RL, Shelton J, et al. Management of the undescended testis in children: An American Pediatric Surgical Association Outcomes and Evidence Based Practice Committee Systematic Review. *J Pediatr Surg*. 2022 Jul;57(7):1293-1308. doi: 10.1016/j.jpedsurg.2022.01.003

Scrotal Pathology (PEDPV-12)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Scrotal Pathology (PEDPV-12.1)

PVP.SP.0012.1.C

v1.0.2025

- 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.

References (PEDPV-12)

v1.0.2025

1. Wang, CL, Aryal, B, et al ; ACR Appropriateness Criteria®Acute Onset of Scrotal Pain-Without Trauma, Without Antecedent Mass. *American College of Radiology*. 2018. https://acsearch.acr.org/docs/69363/Narrative/
2. Elder JS. Disorders and anomalies of the scrotal contents. In: Kliegman RM, Stanton BF, St. Geme JW III, et al., eds. *Nelson Textbook of Pediatrics*, 20th ed. 2016:2592-2598
3. 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
4. Tekgül S, Riedmiller H, Gerharz E, et al. Guidelines on paediatric urology. *European Association of Urology*. Revised March 2013
5. Alkhori NA, Barth RA. Pediatric scrotal ultrasound: review and update. *Pediatric Radiology*. 2017;47(9):1125-1133. doi:10.1007/s00247-017-3923-9
6. Cohen HL, Miller SF. Abnormalities of the male genital tract. In: Coley B, Saunders E, eds. *Caffey's Pediatric Diagnostic Imaging*. Philadelphia, PA. 2019:1193-1200
7. Lyshchik, A, Nikolaidis, P, et al. ACR Appropriateness Criteria® Newly Diagnosed Palpable Scrotal Abnormality. American College of Radiology, 2021. https://acsearch.acr.org/docs/3158184/Narrative/

Penis-Soft Tissue Mass (PEDPV-13)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Penis-Soft Tissue Mass (PEDPV-13.1)

PVP.ST.0013.1.A

v1.0.2025

- 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Incontinence (PEDPV-14)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Incontinence (PEDPV-14.1)

PVP.IN.0014.1.C

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.
- 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.

Background and Supporting Information

- 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.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

References (PEDPV-14)

v1.0.2025

1. Elder JS. Enuresis and voiding dysfunction. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*, 21st ed. 2020:2816-2821
2. Mandell GA, Eggli DF, Gilday DL, et al. Procedure guideline for radionuclide cystography in children. *Society of Nuclear Medicine*. Version 3.0 approved January 2003.
3. Arlen AM, Cooper CS. New trends in voiding cystourethrography and vesicoureteral reflux: who, when and how?. *Int J Urol*. 2019;26(4):440-445. doi:10.1111/iju.13915
4. Fettich J, Colarinha P, Fischer S, et al. Guidelines for direct radionuclide cystography in children. *Paediatric Committee of the European Association of Nuclear Medicine*. Dec 2002.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Patent Urachus (PEDPV-15)

Guideline Page

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

Patent Urachus (PEDPV-15.1)

PVP.UR.0015.1.C

v1.0.2025

- 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%.

400 Buckwalter Place Boulevard, Bluffton, SC 29910 (800) 918-8924

References (PEDPV-15)

v1.0.2025

1. Villavicencio CP, Adam SZ, Nikolaidis P, Yaghmai V, Miller FH. Imaging of the Urachus: Anomalies, Complications, and Mimics. *RadioGraphics*. 2016;36(7):2049-2063. doi:10.1148/rg.2016160062
2. Berrocal T, López-Pereira P, Arjonilla A, Gutiérrez J. Anomalies of the Distal Ureter, Bladder, and Urethra in Children: Embryologic, Radiologic, and Pathologic Features. *RadioGraphics*. 2002;22(5):1139-1164. doi:10.1148/radiographics.22.5.g02se101139
3. Little DC, Shah SR, Peter SDS, et al. Urachal anomalies in children: the vanishing relevance of the preoperative voiding cystourethrogram. *Journal of Pediatric Surgery*. 2005;40(12):1874-1876. doi:10.1016/j.jpedsurg.2005.08.029
4. Buddha S, Menias CO, Katabathina VS. Imaging of urachal anomalies. *Abdom Radiol (NY)*. 2019;44(12):3978-3989. doi:10.1007/s00261-019-02205-x
5. Parada Villavicencio C, Adam SZ, Nikolaidis P, Yaghmai V, Miller FH. Imaging of the Urachus: Anomalies, Complications, and Mimics. *Radiographics*. 2016;36(7):2049-2063. doi:10.1148/rg.2016160062
6. West HC, Anton CG. Bladder and Urethra. In: Coley B, Saunders E, eds. *Caffey's Pediatric Diagnostic Imaging*. Philadelphia PA; 2019:1157-1166
7. Elder JS. Anomilies of the Bladder. In: Kliegman RM, St. Geme JW III, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*, 21st ed. 2020:2810-2813