Keystone First
Family of Health Plans

Cecostomy for fecal incontinence

Clinical Policy ID: CCP.1223

Recent review date: 3/2026

Next review date: 7/2027

Policy contains: Chronic constipation; fecal incontinence; open and percutaneous cecostomy.

Keystone First VIP Choice has developed clinical policies to assist with making coverage determinations. Keystone First VIP Choice's clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of "medically necessary," and the specific facts of the particular situation are considered by Keystone First VIP Choice, on a case by case basis, when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. Keystone First VIP Choice's clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. Keystone First VIP Choice's clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, Keystone First VIP Choice will update its clinical policies as necessary. Keystone First VIP Choice's clinical policies are not guarantees of payment.

Coverage policy

Cecostomy is clinically proven and, therefore, may be medically necessary when all of the following criteria are met (Bordeianou, 2023; Itkin, 2011; Jonker, 2025; Li, 2018; Mohamed, 2020):

- Members aged four years or older.
- Members who are unresponsive to conservative treatment for relieving the bowels for at least a 60-day period. Conservative treatment consists of at least two of the following:
  - Biofeedback.
  - Lifestyle and dietary modifications.
  - Bowel habit interventions.
  - Anal plugs.
  - Pelvic floor muscle training.
  - Rectal irrigation.
  - Drug therapy.
  - Electrostimulation.
- For the purpose of either:
  - Facilitating an antegrade continence enema in members with fecal incontinence secondary to neurologic disease.

- Providing cecal decompression for members with chronic refractory constipation, chronic colonic pseudo-obstruction, or colonic obstruction.

For any determinations of medical necessity for medications, refer to the applicable state-approved pharmacy policy.

Limitations

All other uses of cecostomy are investigational/not clinically proven and, therefore, not medically necessary.

Absolute contraindications to cecostomy include previous abdominal surgical procedures; active peritonitis, colitis, or ileocolitis; uncorrectable coagulopathy; bowel ischemia; and excessive abdominal wall fat.

Relative contraindications include recent gastrointestinal bleeding, hemodynamic instability, ascites, respiratory compromise, and certain anatomic alterations.

For members receiving anticoagulant or antiplatelet therapy (Itkin, 2011):

- International Normalized Ratio should be less than 1.5.
- Platelet count should be greater than 50,000/µL

Alternative covered services

- Bowel habit interventions.
- Anal plugs.
- Pelvic floor muscle training.
- Rectal irrigation.
- Drug therapy (e.g., bulk-forming agents [fibers], emollient stool softeners, rapidly acting lubricants, prokinetics, laxatives, osmotic agents, and prosecretory drugs).
- Electrostimulation.
- Other surgical or minimally invasive procedures (e.g., colostomy, artificial bowel sphincter, or dynamic graciloplasty).

Background

Fecal incontinence is a debilitating symptom resulting from deficits in factors that control bowel function. Organic causes include neurogenic disorders, inflammatory disorders, obstetric trauma, and anorectal anomalies. Functional causes encompass bowel disturbances, most commonly constipation with or without fecal impaction or overflow diarrhea, without evidence of a structural or biochemical explanation (Bharucha, 2015).

Definitions of fecal incontinence vary according to target population (adults versus children), symptoms, symptom duration, and criteria used (Bharucha, 2015; Paquette, 2015). A working definition from the American Society of Colon and Rectal Surgeons encompasses several factors: “The uncontrolled passage of feces or gas over at least one month’s duration, in an individual of at least four years of age, who had previously achieved control” (Paquette, 2015).

Fecal incontinence is a clinical diagnosis primarily based on history and examination, and may include anal manometry, anal ultrasound, colonic transit study, magnetic resonance imaging, defecography, flexible sigmoidoscopy or colonoscopy, and anal electromyography (National Institute of Diabetes and Digestive and Kidney Diseases, 2017). Initial treatment typically involves one or more of the following conservative approaches: dietary modifications, medications (laxatives and suppositories), rectal irrigation, bowel training, pelvic floor exercises, biofeedback, manual disimpaction, and electrostimulation. Surgery may be indicated for fecal incontinence refractory to conservative treatment or for colonic pseudo-obstruction.

Cecostomy is the creation of an opening in the cecum to facilitate an antegrade continence enema or to provide cecal decompression (Itkin, 2011). The procedure involves a standard colonoscopy preparation followed by placement of a temporary decompressive or lavage cecostomy tube (C-tube) surgically or percutaneously with endoscopic or image guidance. Fluoroscopically-guided percutaneous cecostomy is performed according to the technique first described by Chait (1997) in treating fecal incontinence in children (see also Itkin, 2011). The cecostomy tube/catheter used in this procedure has received marketing approval as a Class II device (U.S. Food and Drug Administration, 2021).

For open cecostomy, the hospital length of stay ranges from five to 10 days. Patients undergoing percutaneous cecostomy typically have a shorter hospital stay. Approximately one week after the procedure, the patient begins self-administering antegrade continence enemas through the C-tube, and an individualized irrigation routine is established. After six weeks, the temporary catheter is exchanged for a semipermanent, low-profile cecostomy catheter designed to accommodate different lengths of subcutaneous tissue. This exchange is an outpatient procedure performed by a gastroenterologist, colorectal surgeon, or interventional radiologist over a wire with fluoroscopic guidance, without sedation or antibiotic coverage. Replacement of the semipermanent catheters is performed annually (Radiologic Society of North America, 2024).

Findings

The available evidence on cecostomy for fecal incontinence and chronic constipation derives primarily from retrospective, single-institution case series involving children with refractory defecatory disorders, while the evidence base in adult populations is more limited but expanding. Professional society guidelines increasingly situate cecostomy within a stepwise treatment escalation for participants unresponsive to conservative bowel management, though consensus is stronger in pediatric than in adult practice. Systematic reviews comparing cecostomy to appendicostomy in children report comparable fecal continence outcomes with generally favorable complication profiles for cecostomy, including lower rates of stenosis and surgical revision, though cecostomy is associated with higher rates of granulation tissue formation. In adults, antegrade continence enema continuation rates approximate 75% at medium-term follow-up, though long-term efficacy remains uncertain and percutaneous approaches may be complicated by wound pain. Across both populations, substantial heterogeneity in outcome definitions and reporting methods limits definitive conclusions.

Guidelines

Several professional society guidelines address the role of cecostomy and antegrade continence enemas in managing refractory defecatory disorders, with recommendations varying by target population. A joint guideline from the American Gastroenterological Association and the Society of Interventional Radiology recommends pre-procedural measures for cecostomy based on participant risk, including cessation of warfarin five days before the procedure with verification that International Normalized Ratio is below 1.5, alongside appropriate management of clopidogrel and aspirin therapies; for high-risk participants, warfarin should be substituted with low molecular weight heparin, and platelet counts should be corrected (Itkin, 2011). The American Gastroenterological Association separately observed that antegrade continence enemas were not effective as a long-term solution for adults with defecatory disorders, based on two limited case series with short follow-up periods in which enemas delivered via appendicostomy or button cecostomy had lower success rates in adults than in children (50% versus 80%) and long-term complications including stoma stenosis, leakage, or treatment failure occurred in more than 50% of participants at three years (Bharucha, 2017).

For adult fecal incontinence, the American Society of Colon and Rectal Surgeons reviewed 182 sources and concluded that despite limited evidence, cecostomy tubes may be considered for highly motivated participants who wish to avoid permanent fecal diversion (Bordeianou, 2023). The same society's clinical practice guidelines for chronic constipation in adults do not mention cecostomy as a treatment option (Alavi, 2024). The United European Gastroenterology, European Society of Coloproctology, European Society of Neurogastroenterology and Motility, and European Society for Primary Care Gastroenterology issued joint diagnosis and treatment guidelines for adults with fecal incontinence that similarly do not reference cecostomy as a surgical intervention (Assmann, 2022).

In pediatric populations, guideline support for cecostomy and antegrade continence enemas is more established. The North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition neurogastroenterology and motility committee recommends surgical antegrade continence enema placement when participants have failed maximized pharmaceutical options, are unable to use oral or rectal therapies, or seek improved autonomy from regular retrograde enemas; the committee further notes that an antegrade continence enema trial should precede colonic resection in segmental colonic dysfunction, citing evidence that 92% of participants in one multicenter study avoided resection, that colonic motility normalization has been observed in 33% to 83% of participants following prolonged use, and that 10% to 42% of participants successfully discontinue antegrade continence enemas at 1.2 to 8.8 years after placement (Kilgore, 2025).

A joint guideline from the European Association of Urology, the European Society for Paediatric Urology, and affiliated international organizations on spinal dysraphism recommends a stepwise approach for neurogenic bowel beginning with dietary measures and laxatives, escalating to transanal irrigation which reduces fecal incontinence in up to 90% of participants, and then to an antegrade continence enema stoma or cecostomy tube when irrigation is insufficient or not feasible, with colostomy reserved as a last resort; in the largest long-term series cited (n = 105), 69% of participants achieved successful bowel management through a Malone stoma, though stomal complications occurred in 63% and 33% required surgical revision (Abrahamson, 2025).

Systematic reviews and meta analyses

The comparative safety and effectiveness of cecostomy versus appendicostomy for establishing antegrade continence enema access in children have been examined in several systematic reviews. The largest, encompassing 40 studies (n = 2,086), found that the complication rate after cecostomy was lower than after appendicostomy (16.6% versus 42.3%), with substantially lower rates of stenosis (0.5% versus 16.7%), leakage (2.3% versus 10.8%), and surgical revision (1.5% versus 16.5%); achievement of fecal continence and improvement in quality of life were similar between the two groups, but the need for surgical revision was 15 percentage points higher after appendicostomy (Mohamed, 2020).

A meta-analysis of three studies (n = 166) comparing the two procedures in children with intractable constipation found no significant difference in the percentage achieving continence (80% versus 70%), though the need for additional surgery was higher after appendicostomy (30% versus 12%, p = .01); infection at the insertion site was also higher after appendicostomy (18% versus 10%, relative risk 2.59, 95% confidence interval [CI] 1.08 to 6.16), while excessive granulation tissue was more common after cecostomy (49% versus 13%, relative risk 0.35, 95% CI 0.13 to 0.97) (Li, 2018).

A separate systematic review concluded that cecostomy is a safe and effective alternative to appendicostomy for developing antegrade continence enema access, can be performed concurrently with other procedures, and

yields high satisfaction rates among participants and parents, though additional research based on diagnosis and age is needed to clarify which participants would benefit most (Jonker, 2025).

In adult populations, the evidence base from systematic reviews has grown but remains limited. An earlier systematic review identified two case series with a total of 134 participants in which 78% to 100% continued using antegrade enemas via cecostomy tubes at 22 to 48 months of follow-up (Patel, 2015). A more comprehensive systematic review of 17 studies (n = 404) examining Malone antegrade continence enema outcomes in adults with constipation (49.3%) or fecal incontinence (39.6%) found that the most common surgical techniques were ileal neoappendicostomy (37.9%), percutaneous endoscopic cecostomy (26.0%), and appendicostomy (24.8%); minor complications occurred in 56.3% of participants and complications requiring invasive treatment occurred in 14.4%, with no life-threatening events or deaths reported; stoma stenosis rates differed by technique, with appendicostomy at 31.0% versus ileal neoappendicostomy at 5.0% (odds ratio 6.3, 95% CI 1.6 to 25.0, p = .001) and cecostomy intermediate at 12.5%; at a median follow-up of 28.5 months, 75.1% of participants continued using antegrade continence enemas, while 9.8% required conversion to colostomy (Gallo, 2026).

The quality of the evidence base is further limited by inconsistent outcome reporting. A systematic review of reported outcomes for antegrade continence enema in participants with anorectal malformation and Hirschsprung disease identified 48 studies with a total of 301 different outcome parameters, of which only nine (3%) were reported in more than 50% of publications; although 92% of studies reported enema success, definitions of success varied widely, and validated questionnaires were used in only 6% of studies (Olsbø, 2025). There is considerable practice variation regarding the optimal age at the time of tube placement, type of tube placement for antegrade continence enemas, and surgeons' preferences, even among specialized pediatric colorectal centers; the most common indication for cecostomy was idiopathic or refractory constipation, whereas anorectal malformation was the most common indication for Malone and neo-Malone procedures (Kwon, 2024).

Among adults, a retrospective study of 75 participants demonstrated a decrease in mean Wexner scores from 14.3 to 3.4 at up to 48 months following antegrade continence enema treatment (Chéreau, 2011). In a separate prospective series of 19 adults followed for one year after percutaneous endoscopic cecostomy, complications were minor and included chronic wound pain (n = 9), serous leakage (n = 7), superficial wound infection (n = 2), and accidental catheter removal (n = 2); approximately 75% of participants were able to suspend laxatives and retrograde enemas, though five participants required cecostomy removal because of chronic wound pain (Duchalais, 2015).

In 2026, we added a systematic review (Gallo, 2026), a systematic review (Olsbø, 2025), and guidelines (Kilgore, 2025; Abrahamson, 2025) and reorganized the findings section. No policy changes are warranted.

References

On February 10, 2026, we searched PubMed and the databases of the Cochrane Library, the U.K. National Health Services Centre for Reviews and Dissemination, the Agency for Healthcare Research and Quality, and the Centers for Medicare & Medicaid Services. Search terms were "cecostomy" [MeSH] and free text terms "cecostomy" and "caecostomy." We included the best available evidence according to established evidence hierarchies (typically systematic reviews, meta-analyses, and full economic analyses, where available) and professional guidelines based on such evidence and clinical expertise.

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Policy updates

2/2016: initial review date and clinical policy effective date: 7/2016

1/2018: Policy references updated.

1/2019: Policy references updated. Policy ID changed

3/2000: Policy references updated.

3/2021: Policy references updated.

3/2022: Policy references updated.

3/2023: Policy references updated.

3/2024: Policy references updated.

3/2025: Policy references updated.

3/2026: Policy references updated.

Related Codes

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy CCP.1223. This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.

Code	Code Description
44320	Colostomy or skin level cecostomy
44322	Colostomy or skin level cecostomy; with multiple biopsies (e.g., for congenital megacolon)
44300	Placement, enterostomy or cecostomy, tube open (e.g., for feeding or decompression) (separate procedure)
44141	Colectomy, partial; with skin level cecostomy or colostomy
44188	Laparoscopy, surgical, colostomy or skin level cecostomy
49442	Placement of cecostomy or other colonic tube, percutaneous, under fluoroscopic guidance
49450	Replacement of gastrostomy or cecostomy (or other colonic) tube, percutaneous, under fluoroscopic guidance
43762	Change of cecostomy tube (per AMA CPT guidance)
B4087	Gastrostomy/jejunostomy tube, standard, any material, any type, each
B4088	Gastrostomy/jejunostomy tube, low-profile, any material, any type, each