

Open vs Percutaneous vs Endoscopic vs Transcatheter

The procedure name tells you what was done. The approach tells you how the anatomy was reached.

WHY THIS MATTERS

The same organ, vessel, joint, or spinal region may be treated through very different approaches. Open surgery, percutaneous access, endoscopic procedures, and transcatheter interventions are not interchangeable terms. For anesthesia coders, recognizing the approach helps translate the operative procedure, distinguish procedures that sound similar, and identify the correct anesthesia coding path.

THE CODING TIP

Do not code from the body part alone. Identify how the provider reached it. Approach terminology is one part of the complete procedure description. Read the final operative or procedural note and verify the current CPT and ASA descriptors rather than assuming that procedures involving the same anatomy use the same anesthesia code.

THE FOUR APPROACHES AT A GLANCE

APPROACH	GENERAL MEANING	ACCESS CLUE	COMMON CONTEXT
OPEN	Direct surgical exposure through an incision	Incision with direct exposure of operative anatomy	Open abdominal, thoracic, orthopedic, vascular surgery
PERCUTANEOUS	Access through the skin, often by needle, wire, or catheter	Small puncture/access site rather than broad surgical exposure	Vascular access, drainage, needle/catheter procedures
ENDOSCOPIC	Internal visualization and treatment using an endoscope	Scope introduced through a natural opening or small access route depending on procedure	GI endoscopy, bronchoscopy, arthroscopy, laparoscopy*
TRANSCATHETER	Therapy delivered through a catheter-based pathway	Catheter advanced through vascular or other access to treatment site	Transcatheter cardiac/vascular interventions

**Terminology varies by procedure and coding system. Always use the exact approach terminology and definitions in the applicable code set.*

OPEN: DIRECT EXPOSURE

An open procedure generally involves an incision that provides direct surgical exposure to the operative site. The size of an incision alone does not define the coding approach; the operative technique and applicable code-set definition matter.

- Look for incision, exposure, dissection, retraction, and direct visualization language.
- Identify the final structure treated after exposure.
- Do not assume that conversion from a minimally invasive technique to open surgery can be ignored.
- Review the final operative note for the completed approach and procedure.

PERCUTANEOUS: THROUGH THE SKIN

Percutaneous procedures gain access through the skin, commonly using a needle, guidewire, sheath, catheter, or other device without conventional open exposure of the operative field.

- Identify the puncture/access site.
- Determine what device was introduced and where it traveled.
- Do not equate percutaneous with transcatheter automatically.
- Determine whether imaging guidance is integral or potentially separately reportable under current rules.

ENDOSCOPIC: VISUALIZATION WITH A SCOPE

Endoscopic procedures use an instrument designed for internal visualization and may also allow biopsy, excision, repair, ablation, or other treatment. The term endoscopic is broad; the type of scope and body system matter.

- GI examples include upper endoscopy and colonoscopy.
- Airway examples include bronchoscopy and laryngoscopy.
- Joint procedures may use arthroscopy.
- Abdominal/pelvic minimally invasive surgery may use laparoscopy.
- Do not assume every procedure involving a camera or imaging system is endoscopic.

TRANSCATHETER: FOLLOW THE CATHETER TO THE TREATMENT SITE

Transcatheter procedures deliver diagnostic or therapeutic devices through a catheter-based route rather than conventional open exposure. These procedures are particularly important in contemporary cardiac and vascular care.

- Identify the vascular or other access site.
- Follow the catheter pathway to the treatment site.
- Identify the device or therapy delivered.
- Do not code from the words 'heart procedure' or 'valve procedure' alone.
- Verify the exact final procedure and the current ASA CROSSWALK/RVG relationship.

PERCUTANEOUS ≠ TRANSCATHETER

These terms can overlap, but they do not mean the same thing. Percutaneous describes access through the skin. Transcatheter describes performance of a procedure through a catheter-based pathway. A transcatheter procedure may use percutaneous vascular access, but the words answer different questions.

ENDOSCOPIC ≠ PERCUTANEOUS

Endoscopic describes visualization/access with an endoscope. Percutaneous describes access through the skin. Some minimally invasive procedures may incorporate more than one concept, so do not force the entire operation into a single terminology label without reading the procedure-specific definition.

CONVERSION MATTERS

A case may begin with one approach and end with another. For example, a minimally invasive procedure may be converted to an open operation because of anatomy, bleeding, adhesions, technical difficulty, or another clinical reason.

Coder question: What procedure and approach were actually completed? Review current coding guidance for how the conversion affects reporting and anesthesia code selection.

THE 6-QUESTION APPROACH CHECK

- 1. TARGET — what anatomy was treated?
- 2. ACCESS — how did the provider enter or reach the body region?
- 3. DEVICE — incision, needle, scope, sheath, catheter, or other device?
- 4. PATH — how did the provider travel from the access site to the target?
- 5. FINAL APPROACH — did the approach change during the procedure?
- 6. FINAL PROCEDURE — what was actually completed and documented?

QUICK EXAMPLES

DOCUMENTATION	HOW TO TRANSLATE IT
Open abdominal procedure	Direct operative exposure through an incision; identify the organ and actual procedure.
Percutaneous vascular access	Access through the skin into a vessel; determine what procedure follows the access.
Arthroscopic shoulder procedure	Endoscopic visualization/treatment within or around the shoulder using an arthroscope; identify the structures treated.
Transcatheter valve intervention	Catheter-based treatment; identify the exact valve/procedure and verify the current anesthesia crosswalk.
Converted to open	The approach changed; read the final procedure statement and apply current reporting guidance.

COMMON CODING MISTAKES

- Selecting the anesthesia code from the organ or body region without identifying the approach.
- Treating percutaneous and transcatheter as interchangeable.
- Calling every minimally invasive procedure endoscopic.
- Assuming the scheduled approach remained the final approach.
- Ignoring conversion to open surgery.
- Using an access-site procedure as though it were the definitive treatment.
- Choosing the anesthesia code before reviewing the final procedure and current ASA guidance.

CODER'S TIP

Follow the path from skin to target. Ask how the provider entered, what instrument or device was used, where it traveled, and what was ultimately treated. That path often explains the procedure better than its shorthand name.

WHEN TO STOP AND REVIEW

- The scheduled procedure and final approach do not match.
- The note documents conversion from one approach to another.
- The procedure title says 'percutaneous' but the detailed note describes catheter-based treatment that needs further classification.
- The exact endoscopic procedure or target structure is unclear.
- The anesthesia code selected appears to describe a different approach or procedure.
- The documentation names only an access procedure but not the definitive intervention.
- The coding decision is based on a familiar nickname rather than the current descriptor.

APPROACH TRANSLATION FORMULA

ACCESS + INSTRUMENT/DEVICE + PATH + TARGET + FINAL PROCEDURE = APPROACH

AUTHORITATIVE RESOURCES

- Current AMA CPT code set — verify exact procedure and approach descriptors, guidelines, and parenthetical instructions.
- Current ASA Relative Value Guide (RVG) and CROSSWALK — verify the anesthesia code relationship to the final documented procedure.
- Current CMS Medicare NCCI Policy Manual and PTP edits — verify bundling and separate-reporting requirements.
- Current payer policies when approach, conversion, or minimally invasive technique affects coverage or reporting.
- Reputable clinical and surgical references for understanding procedural approaches; final coding decisions should be based on authoritative coding guidance.

BOTTOM LINE

Open, percutaneous, endoscopic, or transcatheter? Know how the anatomy was reached before deciding how the procedure codes.

Chart Talk ~ Anesthesia Coding Conversations | Lead. Educate. Comply. Excel.

Educational use only. Verify current CPT, ASA RVG/CROSSWALK, CMS NCCI, payer-specific, and organizational requirements for the applicable date of service. Clinical and anatomy references support understanding but do not replace official coding guidance.