

Artery vs Vein: Understanding Vascular Documentation

Both carry blood. They do not carry it in the same direction—and they do not support the same procedures.

WHY THIS MATTERS

Anesthesia records commonly include arterial lines, peripheral IVs, central venous catheters, pulmonary artery catheters, vascular access, ultrasound guidance, and hemodynamic monitoring. Understanding whether the documented structure is an artery or a vein is fundamental to interpreting what was performed and determining which procedure family should be reviewed.

THE CODING TIP

Identify the vessel before you identify the code. Do not let the words line, catheter, access, or ultrasound drive the coding decision by themselves. First determine whether the catheter entered an artery or a vein, where it was placed, and what the device was intended to do.

ARTERY vs VEIN AT A GLANCE

STRUCTURE	BLOOD FLOW	GENERAL FEATURES	ANESTHESIA EXAMPLE
ARTERY	Carries blood away from the heart	Higher-pressure system; pulsatile flow	Arterial catheter for continuous blood-pressure monitoring/blood sampling
VEIN	Carries blood toward the heart	Lower-pressure return system	Peripheral IV or central venous catheter

THE MEMORY RULE

ARTERY → AWAY FROM THE HEART | VEIN → TOWARD THE HEART

The pulmonary circulation is the classic reminder that artery and vein are defined by direction of flow—not simply by oxygen content. Pulmonary arteries carry blood away from the heart, while pulmonary veins return blood toward the heart.

ARTERIAL LINE: THINK PRESSURE MONITORING

An arterial catheter is placed into an artery and is commonly used for continuous invasive blood-pressure monitoring and repeated arterial blood sampling. Common access sites include the radial and femoral arteries, among others.

- Look for the artery named in the procedure note.
- Confirm that an arterial catheter was actually inserted—not merely attempted.
- Distinguish the arterial line from venous access documented elsewhere in the record.
- Review documentation of placement technique and any separately reported guidance under current requirements.

CENTRAL VENOUS ACCESS: THINK VEIN + CATHETER DESTINATION

Central venous access begins through a vein, but the coding analysis may also depend on the catheter type, patient age, insertion method, and where the catheter terminates. Common venous access sites include the internal jugular, subclavian, and femoral veins.

- Identify the vein used for access.
- Determine whether the catheter is centrally inserted or peripherally inserted when relevant.
- Identify whether the device is tunneled, non-tunneled, implanted, or another documented type when applicable.
- Do not confuse the access vessel with the final catheter-tip location.
- Use the complete procedure documentation and current CPT requirements.

PULMONARY ARTERY CATHETER: THE NAME TELLS YOU THE DESTINATION

A pulmonary artery catheter is typically introduced through venous access and advanced through the right side of the heart into the pulmonary artery. The fact that the catheter ultimately reaches an artery does not mean the initial vascular access was arterial.

Coder distinction: Access vessel and catheter destination are two different pieces of the procedure.

ACCESS SITE ≠ CATHETER DESTINATION

QUESTION	WHAT IT TELLS YOU
Where did the needle/catheter ENTER?	Identifies the access vessel and anatomical site.
Where did the catheter TIP END?	May help define the catheter type or purpose.
What was the catheter USED FOR?	Helps distinguish monitoring, infusion, hemodynamic measurement, or another service.
Was imaging/guidance used?	May trigger separate documentation and coding questions under current rules.

ULTRASOUND: ARTERY AND VEIN CAN LOOK DIFFERENT

Clinicians may use ultrasound to distinguish vascular structures and guide access. Veins are generally more compressible, while arteries typically demonstrate pulsatility and resist complete compression. These clinical characteristics help explain the procedure, but the coder should rely on the provider's documented vessel and service rather than independently interpreting images.

Coding point: Ultrasound use does not automatically make guidance separately reportable. Verify the current CPT descriptor, required documentation, image retention requirements when applicable, NCCI edits, and payer policy.

COMMON VESSELS ANESTHESIA CODERS MAY SEE

ARTERIES	VEINS
Radial artery	Internal jugular vein
Femoral artery	Subclavian vein
Brachial artery	Femoral vein
Dorsalis pedis artery	Peripheral upper-extremity veins
Pulmonary artery	Superior vena cava / central venous circulation

THE 6-QUESTION VASCULAR DOCUMENTATION CHECK

- 1. VESSEL — artery or vein?
- 2. SITE — which named vessel and which side?
- 3. ACCESS — where did the catheter enter?
- 4. DESTINATION — where did the catheter tip terminate, when relevant?
- 5. PURPOSE — monitoring, infusion, hemodynamic measurement, or another function?
- 6. GUIDANCE — was ultrasound or another guidance service documented, and are current separate-reporting requirements met?

QUICK EXAMPLES

DOCUMENTATION	ANATOMY TRANSLATION
Right radial arterial line	Arterial access through the right radial artery for invasive monitoring.
Right internal jugular central line	Venous access through the right internal jugular vein; continue reading for catheter type and destination.
Femoral arterial catheter	Arterial access; do not confuse it with a femoral venous central line.
Pulmonary artery catheter via internal jugular access	Venous entry with advancement to the pulmonary artery; access and destination are different.

COMMON CODING MISTAKES

- Treating every vascular catheter as the same type of line.
- Confusing a femoral artery catheter with a femoral vein catheter.
- Assuming a pulmonary artery catheter begins with arterial access.
- Using the word “central” without identifying the actual catheter and access route.
- Assuming ultrasound guidance is separately reportable simply because ultrasound was used.
- Relying on a device name without reviewing where it entered and where it terminated.

- Coding from a checkbox without confirming the procedure note supports the service.

CODER'S TIP

Trace the catheter. Start where it entered the body, identify the vessel, follow where it traveled, determine where it ended, and ask why it was placed. That sequence turns a vague “line” into understandable vascular anatomy.

WHEN TO STOP AND REVIEW

- The record says only “line placed” without identifying the vessel or type.
- The procedure header and detailed note name different vessels.
- The claim reflects arterial access but the documentation identifies a vein, or vice versa.
- The catheter destination is required to understand the service but is not documented.
- Ultrasound guidance is proposed without documentation supporting current reporting requirements.
- Multiple vascular procedures are billed but separate placements cannot be identified.
- The coding decision depends on an assumption about the device rather than the documented anatomy.

ANATOMY TRANSLATION FORMULA

VESSEL + ACCESS SITE + CATHETER PATH/DESTINATION + PURPOSE = VASCULAR CODING PATH

AUTHORITATIVE RESOURCES

- Current AMA CPT code set — verify vascular-access, catheterization, monitoring, and guidance descriptors, guidelines, and parenthetical instructions.
- Current ASA Relative Value Guide (RVG) and applicable anesthesia guidance for separately reportable monitoring and vascular services.
- Current CMS Medicare NCCI Policy Manual and PTP edits — verify bundling and separate-reporting requirements.
- Current payer policies and organizational documentation standards for vascular access and ultrasound guidance.
- Reputable clinical anatomy references for vascular relationships; final coding decisions should be based on authoritative coding guidance.

BOTTOM LINE

Do not code “a line.” Identify the vessel, trace the catheter, and understand what was actually placed.

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

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