Rib classification

Explained answer key

1. Which rib pairs belong to the true group?

Ribs 1–7 are true ribs. Each has its own costal cartilage connection to the sternum.

2. How does the anterior connection of rib 9 differ from that of rib 12?

Rib 9 connects to the sternum indirectly through the cartilage above it. Rib 12 has no sternal connection.

3. Why can a floating rib also be classified as false?

A floating rib has no direct sternal attachment, so it belongs within the broader false-rib group (ribs 8–12). Floating ribs are the last two pairs of that group.

4. Does “floating” mean the rib has no posterior attachment?

No. Floating ribs still articulate posteriorly with vertebrae; the term refers to their lack of attachment to the sternum.

5. A chart lists three groups separately. What should you check before deciding it contradicts a two-group chart?

Check whether floating ribs are included within the false-rib category. A two-group chart may classify ribs 8–12 as false, while a three-group chart lists ribs 8–10 separately from floating ribs 11–12. Compare the attachment descriptions as well as the labels.

Terminology reference: OpenStax, Anatomy and Physiology 2e, section 7.4. Questions and explanations by Atlas Library.

Use your course's labeled thoracic-cage diagram to trace the attachments after checking your answers.