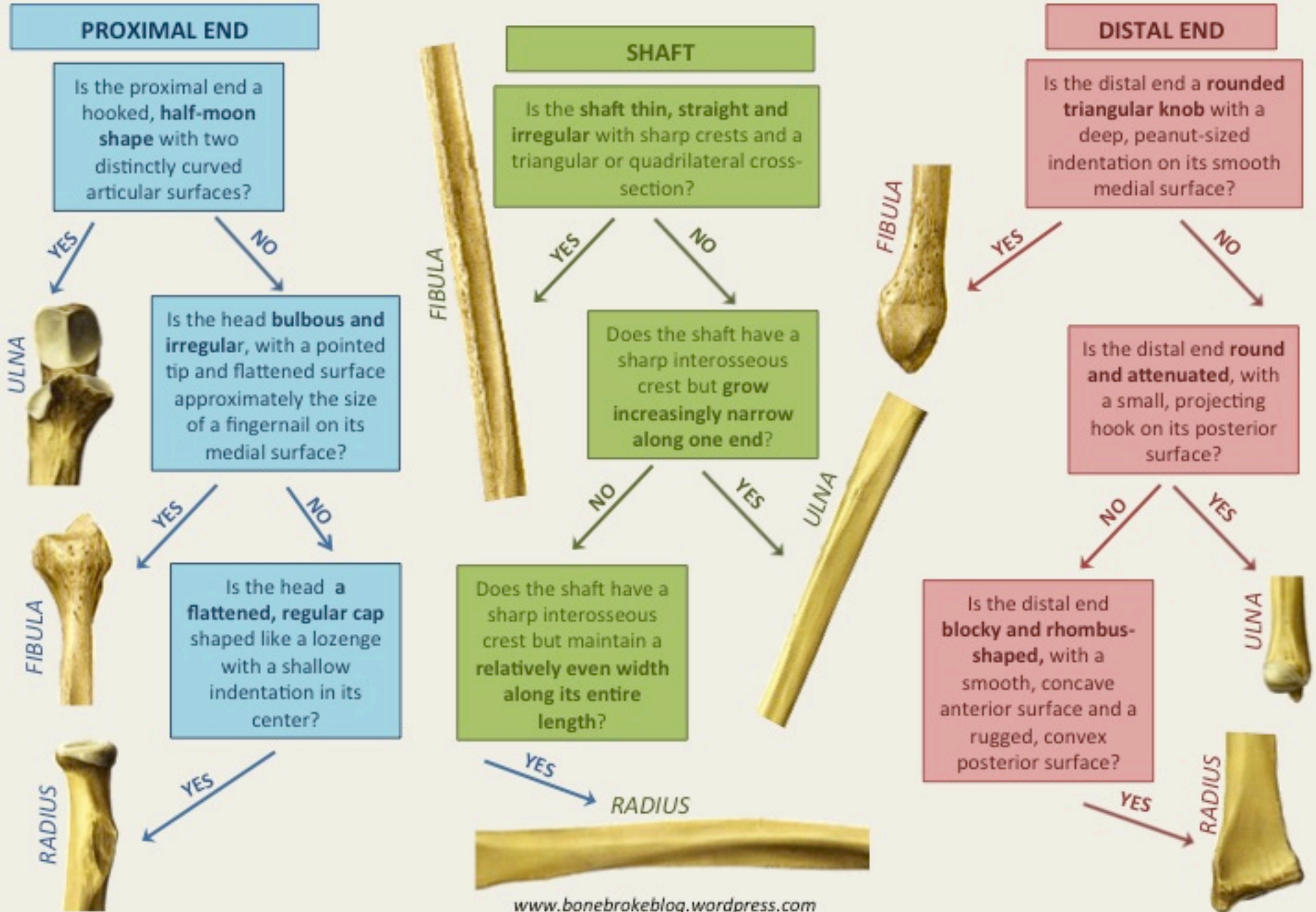
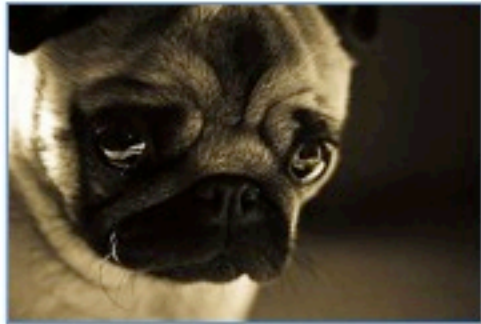


# IDENTIFYING THE SMALLER LONG BONES: A FLOWCHART



# CROSS-SECTIONAL FORM OF THE SMALLER LONG BONES

## THE RADIUS



Feel tears welling up in your eyes at the thought of dealing with fragmentary radii? You are not alone, but if the radius makes you want to cry, use that to your advantage – it will help you to remember that **the radial shaft is shaped like a teardrop in cross-section.**



## THE FIBULA



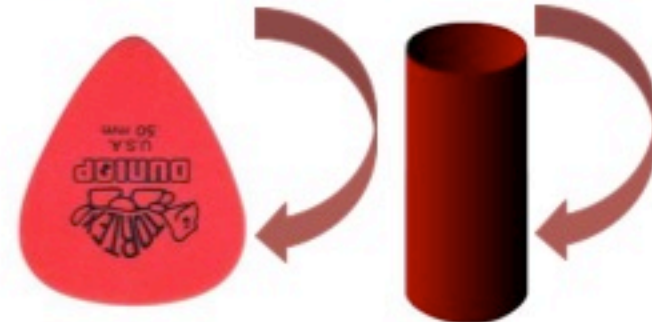
Distress. Despair. Bewilderment. The fibula's tortuous curvature and lack of distinctive features mean that it provokes as many confusing emotions as Picasso's *Guernica*. That association should help you remember that, like the work of the Cubists, **the fibular shaft is shaped like an irregular triangle or rectangle in cross-section.** And if the Cubists baked cakes, they would probably use fibular-style pans like the ones below.



## THE ULNA



The ulna is the quintessential bodybuilder who always skips the leg workout. The bone has a large and chunky proximal end and small, narrow distal end. **The top 2/3 of the shaft are shaped like a triangle with rounded corners** (a bit like a guitar pick) while the bottom third grades into a narrower cylinder.



## THE RADIUS: KEY FEATURES

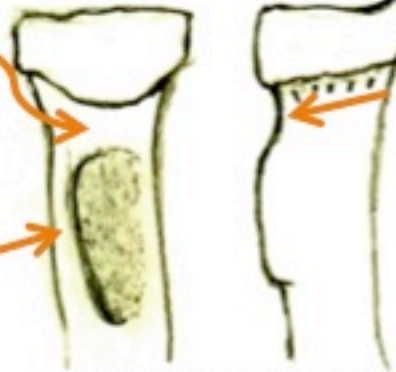
The lateral side of the radial shaft is rounded and slightly curved. The shaft maintains a relatively even diameter along its entire length.

The head of the radius is always thickest on its medial aspect

The radial tuberosity has a sharp, palpable ridge along its posterior and medial aspect.

Mesial

Anterior

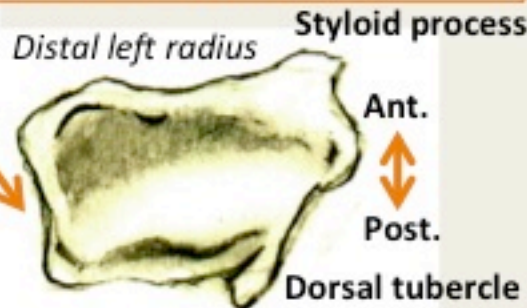


Proximal left radius

The *radial tuberosity* is a roughened, oval-shaped nodule on the proximal and medial portion of the radius.

The *nutrient foramen* is on the anterior and proximal half of the shaft.

The *ulnar notch* is an even, curved indentation for the head of the ulna. This hollow lies on the medial half of the distal radius.



Distal left radius

Styloid process

Ant.

Post.

Dorsal tubercle

The *dorsal tubercle* is a distinct projection on the posterior distal surface of the radius. Its border is demarcated by palpable grooves.

The anterior surface of the distal end of the radius is slightly concave – the shallow indentation provides just about enough space for your thumb.

The *styloid process* is a sharp pointed projection on the lateral side of the distal end of the bone.

The *interosseous crest* is a sharp ridge that runs along the medial side of the center of the shaft.

Left radius, posterior view

Left radius, anterior view

## ORIENTING THE RADIUS USING THE FOREARM

**STEP 1:** Remember that in Standard Anatomical Position (SAP), the radius comprises the lateral side of your forearm when your palms are facing up. (Figure is of right radius).



**STEP 3:** Once you've figured out which aspect is anterior and which is posterior, lay the bone in anatomical position along one of your forearms. The styloid process will point to the same side as your thumb - it also sticks out at a bit of an angle, just like your thumb! (Photos are of left radius).



**STEP 2:** Extend your forearm and hand in front of you in SAP. The palmar surface of your hand is smooth and slightly concave, while the dorsal surface of your hand is bumpier, because of your knuckles. The curvature of the distal radius is very similar: smooth and concave on its anterior aspect, rugged and bumpy on its posterior aspect. (Photos are of left radius).



**STEP 4:** Double-check your siding. The radial tuberosity and interosseous crest should be medial, and the nutrient foramen should be anterior. (Photos are of left radius).