

Anterior instability: the Apprehension test

The patient. A 20-year-old rugby player has had pain and a sense of unease at the front of his shoulder when his arm is taken out to the side and back, since a heavy tackle six weeks ago. He is not sure whether anything moved at the time.

Starting chance. For this exercise, assume a 50% chance of anterior instability before testing. This is a teaching assumption, not a published figure.

Question. You wonder about anterior shoulder instability. What would a positive or a negative apprehension test do to the chance?

Teaching case: Answer

The test. Supine or seated, arm at 90° abduction and 90° elbow flexion; slowly externally rotate.
Positive: Apprehension, the feeling the shoulder will slip; pain alone does not count.

Why this test. The library rates this test as ‘best used to rule in’ for anterior instability. Sensitivity 72%, specificity 96%; LR+ 20.2, LR– 0.29.

Result	Likelihood ratio	Chance after the test
Positive	20.2	about 95%
Negative	0.29	about 22%

Take-home point. The positive result is the useful one: it moves the chance from 50% to about 95%. A negative result brings it down to about 22%, so about 22 in 100 people like this would still have the condition; a negative does not rule it out on its own.

Figures: Farber AJ, Castillo R, Clough M, Bahk M, McFarland EG. Clinical assessment of three common tests for traumatic anterior shoulder instability. J Bone Joint Surg Am. 2006;88(7):1467-1474. They describe the patients in that study, not every patient. Worked with odds: starting odds × likelihood ratio = odds after the test.