

New exercise stress test rules out heart as source of breathing issues

Study result

Narrative

â INTERPRETATION: The study shows no echocardiographic evidence of ischemia.
â Stress ECG: No ST deviation or T wave abnormalities was noted. Arrhythmias during stress: rare PACs, rare PVCs.
â Mild to moderate mitral regurgitation at rest appears similar with post-exercise imaging.
â Estimated PA systolic pressure of 30 mmHg (assuming a CVP of 5 mmHg) at rest increases to 49 mmHg post-exercise.
â Left Ventricle: Normal systolic function with an estimated EF of 60 - 65%.
â Post-stress echo: The left ventricle has an EF of 70 % post-stress. There was appropriate EF augmentation from baseline.

Component results

Component	Your value
Target heart rate, stress	131 bpm
Stress predicted METS	-117.3 METS
Tricuspid valve peak velocity regurgitant flow	2.49 m/s
Tricuspid valve peak gradient regurgitant flow	25 mmHg
Exercise duration, minutes, post stress	6 min
Exercise duration, seconds, post stress	35 sec
Estimated workload, post stress	12.00 METS
Stress % predicted METS	-10.23 %
Peak heart rate, stress	151 bpm
% target HR	115.36 %
Maximum heart rate %	98 %
LV EJECTION FRACTION	60 %
LVEF, post stress test	70 %

Wednesday morning it was time to face the rudest torture apparatus of all- the dreaded treadmill. In a bid to prove it wasn't my lungs actually causing my breathing issues, my pulmonologist set me up with an exercise stress test for my heart. Basically you get the usual EKG treadmill test, but with a twist- at the end, you come to a quick start, flop over onto a table, contort yourself a bit and have ultrasounds done that show various heart functions as affected by exercise.

As much as I hate treadmills (why can't they give me an exercise bike to ride?), I can work with it to achieve a goal. In this case, they want you to get to 80% of your estimated age-adjusted max heart rate and hold it for two minutes, prior to the "flop onto the table." Since the heart rate reading was in plain site, and since I understood the point of the test, I gave them 98% of max estimated heart rate, for 6 minutes. Which is bad enough on a treadmill, but even worse when having to breathe through a mask.

The "flop" part was a bit humiliating; I'm gasping severely for air, trying to recover from the hefty oxygen deficit. I don't think they're used to people trying to max out the test, but I figured I ought to try and duplicate what happens when I ride, because aside from the breathing issue, there's also that nagging thing in your mind that questions, on a hard ride, if I keep this up, will my heart explode? Visions of Kill Bill and the exploding heart technique can really do a number on you! And let's face it, starting sometime around your 50s, you notice that people your age do sometimes just suddenly drop dead from heart issues. Heart issues they didn't know about.

The results appear to be really good. Much better than expected really. Aside from mild-to-moderate mitral valve regurgitation (what they used to call a "heart murmur"), everything looks very good. The METS prognostic score was 12; the scale tops out at >11 for the 60-69 age bracket. So basically my heart is HC (beyond category, if it were a climb), and there were no abnormalities associated with tachycardia or any other irregularity.

So, everything goes back to the pulmonologist.