Does Resistance Training Stimulate Cardiac Muscle Hypertrophy?

Note: This quiz may be used by the CSCS- and NSCA-Certified Personal Trainer to acquire 0.5 CEUs.

The article for this quiz begins on page 7.

1. According to the article, which of the following describes the effect of anabolic-androgenic steroids on left ventricular structure?
   A. increased capillary density
   B. increased end diastolic diameter
   C. increased chamber size
   D. increased wall thickness

2. Which of the following explains why some aerobic endurance (AE) activities elicit a greater increase in left ventricular wall thickness than resistance training (RT)?
   I. AE activities have a longer exercise duration.
   II. RT requires rest periods between sets and exercises.
   III. AE activities are performed continuously.
   IV. RT requires greater skill to perform the exercises.
   A. I, II, and III only
   B. I, III, and IV only
   C. II, III, and IV only
   D. I, II, and IV only

3. All of the following are suspected to be reasons why left ventricular chamber size increases to a lesser extent in strength-trained female athletes as compared to strength-trained male athletes EXCEPT? Strength-trained female athletes have a
   A. lower serum testosterone concentration.
   B. smaller left ventricular end diastolic diameter.
   C. lower lean body mass.
   D. smaller body size.

4. Which of the following explains why chronic resistance exercise causes an increase in left ventricular wall thickness without a similar increase in left ventricular chamber size? Compared to aerobic exercise, resistance exercise elicits a greater
   A. venous return.
   B. left ventricular wall thickness.
   C. peripheral resistance.
   D. exercise duration.

5. All of the following are adaptations to chronic high-intensity exercise training EXCEPT:
   A. increased resting blood pressure
   B. increased left ventricular wall thickness
   C. increased heart mass
   D. increased myocardial dimensions

6. All of the following explain why resistance training-induced adaptations in left ventricular structure cannot be clearly identified EXCEPT:
   A. research studies used different methods to analyze heart structure
   B. research studies used different methods to correct for left ventricular mass
   C. the effect of anabolic-androgenic steroids was not accounted for
   D. the effect of the control group was not accounted for

7. Which of the following explains why chronic aerobic exercise causes a greater increase in left ventricular chamber size than does chronic resistance training? Aerobic exercise elicits a greater
   A. venous return.
   B. left ventricular wall thickness.
   C. peripheral resistance.
   D. exercise duration.

8. All of the following factors influence the degree of cardiac muscle hypertrophy EXCEPT:
   A. mode of exercise
   B. athlete’s talent
   C. duration of exercise
   D. athlete’s training intensity

9. Which of the following is the conclusion of the meta-analysis about the effect of resistance training on left ventricular wall thickness as compared to untrained controls? After adjusting for body dimensions, left ventricular wall thickness is
   A. larger in the resistance training subjects.
   B. larger in the untrained controls.
   C. not able to be determined.
   D. not significantly different.

10. When a research study has shown that resistance training increased left ventricular wall thickness, which of the following describe the extent or degree of this change?
    A. the increases could not be measured
    B. the size changes were within physiological limits
    C. the increases were greater than those caused by chronic hypertension
    D. the size changes were greater than those caused by eccentric hypertrophy

The answers to this quiz will appear in Vol. 25(3).

Answers to the CEU Quiz in Vol. 25(1) of the Strength and Conditioning Journal
CSCS and NSCA-CPT
CEU Quiz Answer Form

Does Resistance Training Stimulate Cardiac Muscle Hypertrophy? (Pages 7-15)

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