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Assessment of Exercise Tolerance for Development of Safe Exercise Prescription

Part I: Risk Assessment and Fundamentals of Exercise Physiology

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Note to Participants: There are interactive pop-up questions throughout this lecture. If you choose to pause the lecture and return at a later time, a natural break time would be after answering the interactive questions. (You are able to pause at any time and the presentation will "remember" where you were. It's just a more natural time to pause after the interactive questions.) For your convenience, this outline reflects where/when within the lecture the interactive questions occur.

This lecture has 107 slides and is 124 minutes in duration.

I. Assessment of risk of disease

- A. Why assess risk?
- B. Incidence of disease cardiovascular disease: the #1 killer
- C. Risk of stroke and peripheral arterial disease
- D. Incidence of heart failure
- E. Incidence of deep vein thrombosis
- F. Incidence of pulmonary disease
- G. Incidence of falls
- H. Incidence of obesity

Interactive Questions — slide 27 @ 26 minutes

II. Assessment for risk or presence of disease

- A. Risk factors of cardiovascular disease
 - 1. High blood pressure
 - 2. Smoking
 - 3. Elevated cholesterol
 - 4. Family history
 - 5. Inactivity
 - 6. Other risk factors
 - 7. Emerging risk factors
 - 8. Metabolic syndrome
- B. Risk factors of stroke
- C. Risk factors of heart failure
- D. Risk factors of diabetes
- E. Risk factors of DVTs
- F. Risk factors of pulmonary disease
- G. Sleep disordered breathing
- H. Risk factors of falls

Interactive Questions — slide 62 @ 72 minutes

III. Implementing risk factor analysis

- A. Simple questions
- B. Assessment tools available
- C. Online resources to assess risk
- D. Assessment of obesity

Notes

Interactive Questions — slide 76 @ 81 minutes

- IV. Understanding the energy systems
- A. Aerobic vs. anaerobic metabolism
 - 1. Anaerobic metabolism
 - 2. Aerobic metabolism
 - B. ADL vs. endurance activities
 - 1. ADL activities
 - 2. Endurance: what is it?
 - 3. Energy stores in body

Interactive Questions — slide 95 @ 107 minutes

- C. Effect of diet on energy sources

Interactive Questions — slide 104 @ 121 minutes

IV. Summary

Notes

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Articles

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9. McArdle WD, Katch FI, Katch VL. *Exercise Physiology*. 5th ed. Baltimore, MD: Williams and Wilkins; 2004.
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