Target Heart Rates During Exercise

Overview:

Patients exercising at the correct intensity should have a heart rate within a given target range.

maximum heart rate for a given age = 220 - (age in years)

Method 1

lower limit for target heart rate = ((maximum heart rate for age) * (lower limit percentage for age))

upper limit for target heart rate = ((maximum heart rate for age) * (upper limit percentage for age))

where:

- In the elderly the lower limit percentage is 60% and the upper limit percentage is 75%.

Method 2: Heart Rate Reserve (Karvonen) Formula

lower limit for target heart rate = (((maximum heart rate for age) - (resting heart rate)) * 0.60) + (resting heart rate) = (0.60 * (maximum heart rate for age)) + (0.40 * (resting heart rate))

upper limit for target heart rate = (((maximum heart rate for age) - (resting heart rate)) * 0.75) + (resting heart rate) = (0.75 * (maximum heart rate for age)) + (0.25 * (resting heart rate))

References:

Cearlock DM Nuzzo NA. Evaluating the benefits and hazards of exercise in the older adult. MLO. June 1997. pages 40-49.

Rimmer JH. Fitness and Rehabilitation Programs for Special Populations. WCB Brown & Benchmark Publishers. 1994.