



Age-Predicted Maximum Heart Rate Disputed

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"Age predicted equations are worse than useless"

For years, competitive athletes have watched their heart rate monitors zoom far above and far below their estimated maximum heart rate using the standard formula of "220 minus age." The American College of Sports Medicine (ACSM) states that there is "a standard deviation of 10-12 beats per minute." Do you believe that this is accurate?

Take Paul Camerer (or "Pinkhouse" as Sally Edwards affectionately calls him) for example. His maximum heart rate hasn't dropped a beat in the 37 years that he has been measuring it. He's now 87 years old and his maximum heart rate running is 190 bpm. Using the formula $220 - 87 = 133$ bpm means that if he followed the formula the error is 57 bpm, much more than the 10-12 beats per minute deviation cited by the ACSM. This is a 30% error; Pinkhouse would do better guessing his maximum heart rate than using the old formula of $220 - \text{age}$.

Carl Foster states: "Age predicted equations are worse than useless (ALL OF THEM). If you don't have a measured HRmax, or at least something based on some sort of measured parameter such as the Heart Zones Training system provides with sub-max testing, then you have nothing."

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