

# Energy Expenditure Using Portable Calorimeters

Measuring energy expenditure in a laboratory condition using a portable calorimeter (Cosmed)


Keywords: [Methods](#) [Energy Balance](#)

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The metabolic cost of different physical activities, such as walking, running, working, and other sporting activities, in addition to the resting metabolic rate, is useful for assessing the energy expenditure (EE) in a free-living environment. In a laboratory condition, EE is measured using indirect whole-room calorimeters or a stationary metabolic carts. However, EE during normal daily living activities and exercise is much more difficult to measure using indirect calorimetry. At present, the best option is to utilize portable accelerometers. The Oxycon mobile 5.0 (OM; Viasys Healthcare Inc., Yorba Linda, CA) is a portable metabolic analyzer that allows the measurement of oxygen consumption under free-living conditions in response to physical activity. The device collects data through a facemask or mouthpiece and wirelessly sends it to a host computer system and has a telemetry range of up to 1,000 m in line of sight.

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## Attachment

 [Oxycon\\_Mobile\\_Brochure\\_2015.pdf](#) - Added on August 3, 2015 at 5:24 PM by Maciej Buchowski

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