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**Accuracy of the Omron HBF-500 Body Composition Monitor**

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*Int J Exerc Sci* 2(1): S6, 2009. The Omron HBF-500 is a relatively new and inexpensive body composition monitor that incorporates both hand-to-hand and foot-to-foot electrical impedance technology. At this time, the authors are not aware of any studies examining the accuracy of this monitor. **PURPOSE:** To assess the accuracy of the Omron HBF-500 body composition monitor using the BOD POD as a criterion. **METHODS:** Sixteen men and 23 women signed an informed consent and participated in the study ( $22.7 \pm 3.7$  years,  $168.8 \pm 9.1$  cm,  $73.8 \pm 17.8$  kg,  $25.7 \pm 5.6$  kg·m<sup>-2</sup>). Participants were asked to refrain from exercise and caffeine on the day of testing, and were asked not eat a heavy meal three hours prior and to remain normally hydrated. Participants removed all jewelry and garments down to tight fitting clothing (swim suits or running tights) and were assessed on the BOD POD and Omron according to manufacturer's guidelines. **RESULTS:** The Omron HBF-500 significantly overestimated percent body fat (%BF) by 3.5% compared to the BOD POD ( $31.7 \pm 9.6\%$  and  $28.6 \pm 9.6\%$ , respectively),  $t(38) = -6.05$ ,  $p = 0.001$ . The Omron HBF-500 also measured weight significantly higher than the BODPOD ( $74.4 \pm 17.7$ kg and  $73.8 \pm 17.8$ kg, respectively),  $t(38) = -11.2$ ,  $p = 0.001$ . Finally, the Omron HBF-500 was significantly correlated with the BOD POD when assessing body fat,  $r = .93$ . **CONCLUSIONS:** Caution should be taken when using the Omron HBF-500 as a measure of body fat. Those who choose to use this instrument should be aware the 3.5% higher reading compared to the BOD POD.

