Field Testing of Physiological Responses Associated with Nordic Walking

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This study compared the physiological responses (oxygen consumption and energy expenditure) of Nordic Walking to regular walking under field-testing conditions.

Eleven women (M *age = 27.1 years*, SD = *6.4) and 11 men* (M *age = 33.8 years*, SD = *9.0) walked 1,600 m with and without walking poles on a level, 200-m track. For women, Nordic Walking resulted in increased oxygen consumption* (M = *14.9 ml·kg^{1}·min^{-1}* , SD = *3.2 vs.* M = *17.9 ml·kg^{1}·min^{-1}* , SD = *3.5;* p < *.001), caloric expenditure* (M = *4.6 kcal·min^{-1}* , SD = *1.2 vs.* M = *5.4 kcal·min^{-1}* , SD = *1.2;* p < *.001), and heart rate* (M = *113.7 bpm*, SD = *12.0 vs.* M = *118.7 bpm*, SD = *14.8;* p < *.05) compared to regular walking. For men, Nordic Walking resulted in increased oxygen consumption* (M = *12.8 ml·kg^{1}·min^{-1}* , SD = *1.8 vs.* M = *15.5*, SD = *3.4 ml·kg^{1}·min^{-1};* p < *.01), caloric expenditure* (M = *5.7 kcal·min^{-1}* , SD = *1.3 vs.* M = *6.9 kcal·min^{-1}* , SD = *1.8;* p < *.001), and heart rate* (M = *101.6 bpm*, SD = *12.0 bpm vs.* M = *109.8 bpm*, SD = *14.7;* p < .01) compared to regular walking.

Nordic Walking, examined in the field, results in a significant increase in oxygen use and caloric expenditure compared to regular walking, without significantly increasing perceived exertion.