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# Fun versus Practical: Physiological Responses and Preference of Exercise Equipment

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## Abstract

The elliptical cross trainer has become a popular a mode of exercise, but can only be used indoors. The StreetStrider was designed as an outdoor elliptical-bike. **PURPOSE:** The purpose of this study is to determine whether the elliptical or the StreetStrider was more enjoyable, and to compare the physiological variables for energy expenditure, heart rate (HR), VO2, and Rate of Perceived Exertion (RPE). **METHODS:** Thirty participants (15 male, 15 female, mean age=22±2) from Cleveland State University exercised for 20 minutes at 75% of their age predicted maximal heart rate on the StreetStrider and elliptical. Energy expenditure was measured with a COSMED K4b metabolic system. Participants' RPE was recorded every five minutes using the Borg Scale for Rate of Perceived Exertion. Data was analyzed using SPSS version 18. A paired sample t-test compared physiological responses. A one-way ANOVA analyzed gender differences. A significance level of .05 was used to determine significance. **RESULTS:** No significant differences were shown in energy expenditure ($p=.930$), HR ($p=.098$), or in average RPE ($p=.529$) between the exercise trials. A preference survey concluded that most subjects found the StreetStrider more enjoyable than the elliptical. **CONCLUSION:** The StreetStrider is more enjoyable than the elliptical and as effective in energy expenditure, and could serve as a substitute for the elliptical.