



# Effects of Getbuzzing® on physiological and metabolic responses to exercise

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## INTRODUCTION

CHO feedings in the hour before exercise improve exercise performance (Hargreaves et al., 2004). However most studies have used sports drinks of different concentrations (4-18%), prolonged exercise (over 60 min) and highly trained subjects (mainly cyclists). The purpose of this study was to assess the effects of Getbuzzing®, a new, all-natural ingredients carbohydrate bar on physiological and metabolic responses to exercise in non-elite athletes and physically active individuals during exercise lasting approximately 45 min.

## METHOD

The study used a sample of ten participants (n=10; RP = rugby players, TR=triathletes, RE=recreational exercisers).

Table 1. Anthropometric characteristics of participants. Values are mean  $\pm$  s.

Group	n	Age (yrs)	Stature (cm)	Body mass (kg)	Body fat (%)	VO <sub>2max</sub> (ml·kg <sup>-1</sup> ·min <sup>-1</sup> )
RP	4	18.3 $\pm$ 1.3	190.2 $\pm$ 5.6	101.1 $\pm$ 8.7	13.7 $\pm$ 2.1	48.1 $\pm$ 4.8
TR	4	41.6 $\pm$ 8.4	173.8 $\pm$ 4.9	69.5 $\pm$ 2.6	12.5 $\pm$ 2.8	56.8 $\pm$ 4.8
RE	2	45.0 $\pm$ 0.5	182.5 $\pm$ 4.5	86.5 $\pm$ 3.3	21.3 $\pm$ 6.3	38.2 $\pm$ 5.0

Each participant completed two testing sessions separated by seven days in a randomised cross-over design. The experimental protocol comprised a submaximal test (4 stages x 4 min) at increasing speeds (11, 12, 13, 14 km·hr<sup>-1</sup>) that was followed by a run to fatigue test to determine VO<sub>2max</sub> (Jones, 2007). Physiological and metabolic measurements (VO<sub>2</sub>, HR, RPE, HLa, BGLu) were taken at the end of each stage during the submaximal test and upon completion of the run to fatigue test. Post-exercise measurements (HLA, BGLu) were taken 5 min after completion of the run to fatigue test. A schematic of the study protocol is shown in Diagram 1.

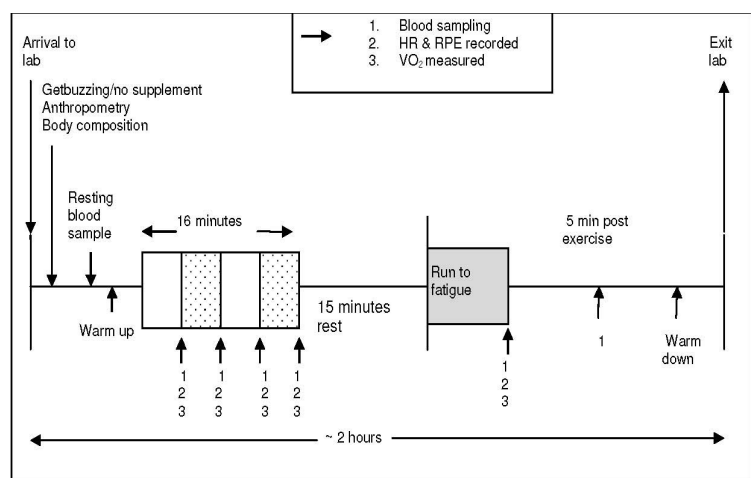


Diagram 1. The study protocol showing the submaximal and run to fatigue tests and type and timing of physiological and metabolic measurements.

## RESULTS

One hour after consuming a Getbuzzing® bar, mean VO<sub>2</sub> at 13 km·hr<sup>-1</sup> decreased ( $37.86 \pm 4.6$  v  $32.14 \pm 6.09$  ml·kg<sup>-1</sup>·min<sup>-1</sup>,  $P=0.004$ ), mean RPE at exhaustion lowered ( $18 \pm 1.49$  v  $16.8 \pm 1.66$ ,  $P=0.001$ ) and mean TTF was 10% longer (see Fig. 1;  $P=0.01$ ). Mean HLa<sub>peak</sub> ( $10.01 \pm 3.44$  mM v  $12.07 \pm 3.61$ ,  $P=0.005$ ) and mean Glu<sub>peak</sub> ( $4.87 \pm 0.70$  mM v  $5.64 \pm 0.66$  mM,  $P=0.01$ ) were significantly higher with Getbuzzing®.

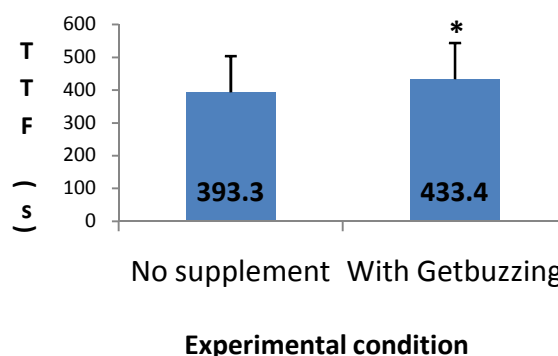


Figure 1. Effect of Getbuzzing® on time to fatigue (TTF). \* significant at  $P<0.05$ .

## DISCUSSION

These results agree with those of previous studies that have used carbohydrate meals one hour before exercise (Stevenson et al., 2005). The 10% longer TTF in this study compares favourably with that stated by Kirwan et al. (1998). It appears that Getbuzzing® is effective in improving running economy and endurance capacity in this group of non-elite athletes. Moreover, Getbuzzing® is a healthy, additive free alternative to other commercial supplements even though its relative effectiveness is yet to be investigated.

## ACKNOWLEDGEMENT

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