

**UNIVERSITI TEKNOLOGI MARA**

**FASTING VERSUS CARBOHYDRATE  
LOADING ON PHYSIOLOGY AND  
PSYCHOMOTOR PERFORMANCE  
AMONG INTERMITTENT ATHLETE**

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requirements for the degree of  
Bachelor of Sports Science (Hons)

**Faculty of Sports Science and Recreation**

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## AUTHOR'S DECLARATION

I declare that the work in this research was carried out in accordance with the regulation of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicates or acknowledge as references work. This research project has not been submitted to any other academic institution or non-academic institution for any degree of qualification.

I, hereby, acknowledge that have been supplied with Academic Rules and Regulation for Under Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## ABSTRACT

Fasting state gave a greater impact on athletic performance as there were some negative effects contributed during this condition. Meanwhile carbohydrate loading has been widely used as a technique to enhance performance after certain day of carbohydrate ingestion and exercise tapering. Therefore this study was conducted to compare carbohydrate loading technique and fasting on physiology and psychomotor performance among intermittent athlete. A total of 30 participants were randomly assigned into three groups which are carbohydrate loading, fasting and control group. All participants were range aged from 13 to 16 years old. All participants were performed the test twice which was before and after the treatment given. The instruments that being used during this study were bleep test for cardiovascular endurance and stroop test for attention. A significant different between carbohydrate loading and fasting group were noted ( $p<0.05$ ). This study showed that carbohydrate loading give a better effect compared to fasting method. This finding indicates that carbohydrate loading significantly increase on physiology and psychomotor performance as increasing carbohydrate ingestion and exercise tapering also increase muscle glycogen stored that help to improve physiology and psychomotor performance.

**Keywords:** carbohydrate loading, fasting, physiology, psychomotor

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