

# THE RELATIONSHIP OF GLYCEMIC INDEX FOOD CONSUMED WITH VO<sub>2</sub> MAX FUTSAL PLAYERS

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## ABSTRACT

Futsal is one of the sports that demands high cardiorespiratory resistance. Measurement of the resistance of cardiorespiratory to aerobic capacity is done by measuring the VO<sub>2</sub>max. VO<sub>2</sub>max is the maximum value of the body can use oxygen during exercise. One of the factors that influence VO<sub>2</sub>max is nutrients. Nutrients that are required for the sport one is carbohydrates. Carbohydrate intake before exercise can increase the amount of glycogen deposits so that it can delay fatigue during exercise. Carbohydrates based on the blood glucose response in the body are differentiated based on the glycemic index constants. Foods with different glycemic index is oxidized and absorbed with different speeds so it has a different impact on blood glucose and insulin. This research aims to know the relationship of glycemic index food consumed and VO<sub>2</sub>max futsal players

The research type is analytic research with approach of cross sectional that describe the relationship between glycemic index food consumed against VO<sub>2</sub>max on futsal players. The samples were 20 futsal players were selected by purposive sampling. Statistics analysis using simple linear regression test to find out the relationship of glycemic index food consumed with VO<sub>2</sub>max futsal players.

Respondents consuming glycemic index food on average  $46.6870 \pm 8.9928$ . Respondents who have a value of VO<sub>2</sub>max are a number of 60% and an average value of  $35.0995 \pm 3.7351$  VO<sub>2</sub>max. Analysis results using Simple Linear Regression test indicates the existence of a relationship between glycemic index food consumed and VO<sub>2</sub>max on futsal player (p value = 0.002). There is a relationship between glycemic index food consumed against VO<sub>2</sub>max on futsal player.

**Keywords:** futsal players, glycemic index, VO<sub>2</sub>max