

**Sports University of Tirana  
Sports Research Institute  
Department of Sports Performance**

**THE EFFECT HORIZONTAL PLYOMETRIC ON  
THE VO<sub>2</sub>MAX AND ANAEROBIC CAPACITY  
SOCCER PLAYERS AGE OF 16-18 OLD**

*MSc Arben Bici,*

*Prof.Dr. Agron Kasa,*

*Dr.Florian Mema*

## Introduction

Football is an acyclic sport in which the aerobic energy system is more in use with average and peak heart rate rates of about 85% and 98% of maximum values, respectively, corresponding to a value of 70% of (VO<sub>2</sub>Max). It is the Aerobic Capacity of the Player that helps recovery between strength, requiring fast running, and periods of high intensity.

## Results and discussions

The term "plyometric" first appeared in the literature of sports methodology in 1966. The use of this term is to indicate the greatest tension expressed by a group of muscles when working in regimens which include, a rapid phase of stretching followed by an equally rapid contraction. With this procedure, the tension expressed by the muscles at work, measured (measured) from the outside, is higher (plio) than the tension expressed using any other procedure (isometric, isotonic).

## Methodology

The main aim of this study was to evaluate the effects of Horizontal Plyometric Training with High Volume and Low Intensity. The combination of the variables, like Volume, Intensity and Height of jumping on improvement of Vo<sub>2</sub> max and Anaerobic capacity of the soccer player, was assumed as the working hypothesis of this study.



## Conclusions

There is a very intriguing theory that African runners have a more developed SSC, functioning better than Europeans. Also, the Finnish scientist (*Paavoleinen*) found that plyometric training improved the performance time of the 5 km race by 3% (this was in fairly good and highly trained runners, so 3% is not a matter of laughter), which was associated with reduced contact time and running economy (8% lower).