



# THE EFFECT OF EXERCISE ON AEROBIC CAPACITY (VO<sub>2</sub>max) OF ATHLETES AFTER ANTERIOR CRUCIATE LIGAMENT RUPTURE

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## Introduction

The purpose of this systematic review is to highlight the effects of exercise on aerobic capacity (VO<sub>2</sub>max) of athletes after anterior cruciate ligament rupture.

## Methodology

The relevant studies were reviewed regarding the effect of exercise on aerobic capacity (VO<sub>2</sub>max) of athletes with anterior cruciate ligament rupture. The search was carried out in the online database of scientific studies PubMed. The combined use of the terms "Exercise", "Anterior Cruciate Ligament Rupture", "Aerobic Capacity (VO<sub>2</sub>max)" and "Athletes", revealed 800 studies, of which six that met all the inclusion criteria were finally selected to be included in this systematic review.

## Results

The six studies included in this systematic review were published between 2009 and 2020, with a total sample of 237 athletes with anterior cruciate ligament rupture, specifically 133 women (56.12%) and 104 men (43.88%), aged 21.67 (± 2.83) years. All athletes participated in exercise programs (aerobic, anaerobic, muscle strengthening and stretching exercise), with an average duration of 16 weeks, an average of 2.67 sessions per week and an average duration of 50.83 min per session. The outcome parameter (VO<sub>2</sub>max) increased after exercise programs by 1.21 ± 1.17 ml / kg / min (i.e., from 34.00 ± 6.64 ml / kg / min to 35.21 ± 7, 81 ml / kg / min) and a percentage improvement of 3.54%.

## Conclusions

The findings of the present study suggest that exercise protocols have a positive effect on the aerobic capacity of athletes after anterior cruciate ligament rupture.

## References

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