

# PEA Exercise Recovery 2020

## Journal

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## Article

*The Effect of Orally Dosed Levagen+™  
(palmitoylethanolamide) on Exercise  
Recovery in Healthy Males—A Double-Blind,  
Randomized, Placebo-Controlled Study*

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## Key Words

- Palmitoylethanolamide;  
Recovery; Leg press exercise;  
Muscle damage; Functional foods

## Summary / Key Points

*Brisbane study shows that Palmitoylethanolamide (PEA) can aid in exercise recovery* □

□ **Read on for more!** □

Muscle damage from exercise can create soreness, pain and swelling. In the trained area, there is lower strength, power, and range of motion as the tissue is recovering. This can limit recovery times, training intensity and performance.

NSAIDS are commonly prescribed for exercise-induced muscle damage. However, they pose short and long-term risks such as stomach issues and impaired muscle responses to exercise. In response to these challenges, researchers explored a potentially safer alternative...

PEA is a cannabimimetic compound, which means it has similar pharmacological effects to cannabis by acting as a messenger on the body's internal system called the ECS.

The fatty molecule is naturally produced in humans in response to injury and is thought to lower pain through the ECS and by reducing inflammation. It can be found in foods such as peanuts □ soybeans & eggs □

This RCT randomised 28 young healthy males into an active and placebo group. Participants in the active group supplemented with a liquid PEA product (*Levagen+™*) before and after a leg press exercise. Placebo participants received a visually identical drink without PEA and went through the same exercise.

Over 72 hours post-exercise, all participants were tested for a range of markers like muscle damage and inflammation.

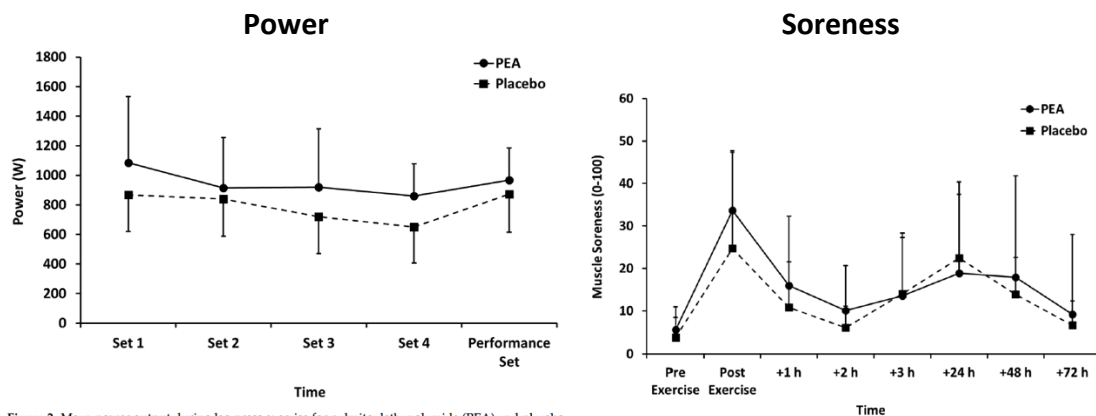


Figure 2. Mean power output during leg press exercise for palmitoylethanolamide (PEA) and placebo groups. Values are mean  $\pm$  SD.

Figure 3. Muscle soreness for palmitoylethanolamide (PEA) and placebo groups. Values are mean  $\pm$  SD.

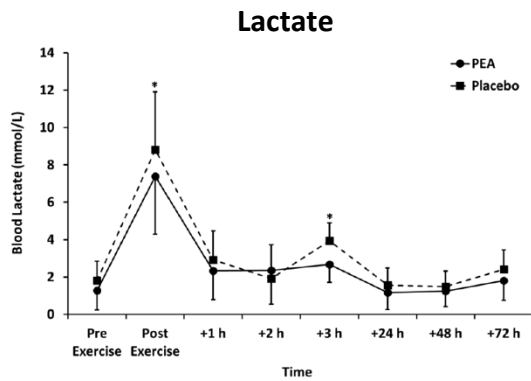


Figure 4. Blood lactate concentration for palmitoylethanolamide (PEA) and placebo groups. Values are mean  $\pm$  SD. \*  $p < 0.05$  between groups.

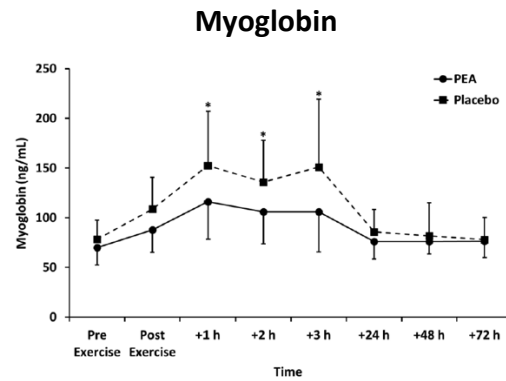


Figure 5. Myoglobin concentration for palmitoylethanolamide (PEA) and placebo groups. Values are mean  $\pm$  SD. \*  $p < 0.05$  between groups.

After measuring 73 hours post an exercise session to exhaustion, results show that PEA may aid in muscle recovery by reducing myoglobin (stores oxygen) and lactate (by product of energy production) levels. However, it was not shown to reduced pain or swelling, which may be due to the short period of supplementation and/or exercise volume.

- PEA may allow for higher exercise intensity
- PEA may support longer durations of exercise
- Greater duration of intensity may help improve training response / exercise performance

[Keen to hear more?](#)

Read further on this study & RDC Clinical

