



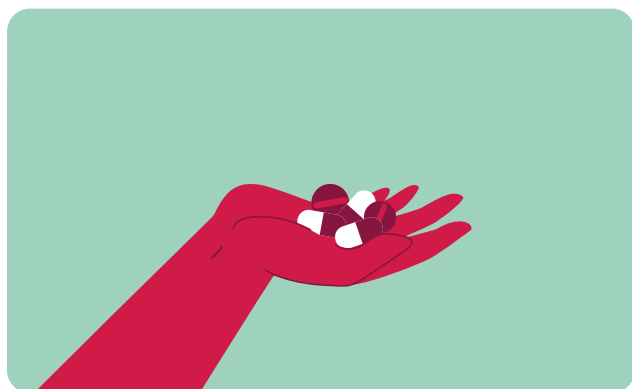
# Palmitoylethanolamide (PEA)

Painkiller with high bioavailability

This is fatty acid amide, that occurs naturally in human body, animals and plants.

It is thought to be produced as a protective response to cellular injury and is usually up-regulated in disease states.

PEA produced internally is generally insufficient for treating chronic inflammatory diseases, so supplying this substance externally is an excellent therapeutic strategy to restore balance in the body.

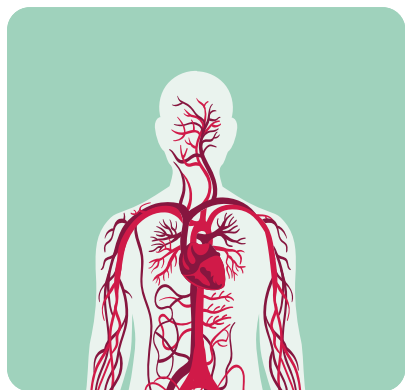


## PEA has widely documented effects

- ✓ Relieving chronic and neuropathic pain
- ✓ Reducing inflammation
- ✓ Neuroprotection
- ✓ Relieving joint pain
- ✓ Improving immunity
- ✓ Anti-allergic effects
- ✓ Supporting the treatment and prevention of Alzheimer's and Parkinson's disease
- ✓ Attenuating and reducing the duration of epileptic seizure

## The use of PEA is safe!

- ✓ After more than 50 years of use in clinical trials, it can be confirmed that it is well tolerated and free of serious undesirable effects in animals and humans.
- ✓ Thanks to the fact that PEA can be found in the metabolic process of the human body, it is recognized by the FDA as safe for use, which is a confirmation of the absence of negative health effects.
- ✓ It is a natural substance that also occurs in small concentrations in foods such as eggs, meat, peanuts, soybeans, peas and corn.

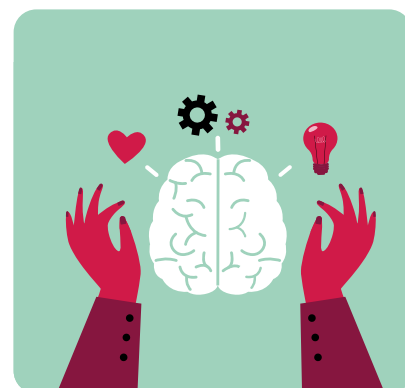


## Multi-faceted effects

- ✓ PEA has special mechanism of action that affects several pathways at different sites. It acts on the PPAR- $\alpha$  receptor, G protein-coupled receptor 55 (GPR55) and G protein 119 (GPR119). It also activates cannabinoid receptors 1 and 2 (CB1 and CB2) and vanilloid receptor channels 1. In addition, it inhibits mast cell activation.
- ✓ Due to synergistic interactions between several mechanisms, PEA exerts important therapeutic effects in both the central and peripheral nervous systems.

## More about PEA available from IMPAG

- ✓ More efficient absorption thanks to special particle size – the powder is ultra-micronized, which means a particle size of less than 10  $\mu\text{m}$ .
- ✓ It is made from palm oil without using any chemical solvents, making it even healthier for humans.
- ✓ It has a purity of more than 99%.
- ✓ Each batch is tested for heavy metal content, and microbiological testing and NMR spectra are performed.
- ✓ The manufacturing plant that produces PEA is approved by the FDA, which is an indicator of quality.



### Applications

Dietary supplements for humans and dogs and cats, for example:

- ✓ supporting joint health
- ✓ for athletes
- ✓ preventing and relieving inflammation and pain

### Forms

- ✓ White ultra-micronized powder
- ✓ White flakes

### Applications

- ✓ Capsules
- ✓ Tablets
- ✓ Single-ingredient and multi-ingredient powders