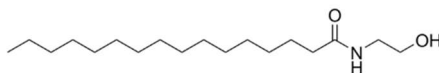


Palmitoylethanolamide (PEA)



Palmitoylethanolamide (or PEA for short) is a substance that naturally in low levels in your body and in foods that you eat¹. It is found, for example, in egg yolks and soybeans.



It's a fatty acid amide, a class of chemicals that are natural components of the membranes of your body's cells. It is an active component, however, playing an inhibitory role against the body's pain and inflammatory processes. Research suggests that in conditions of chronic pain and inflammation, PEA levels may be reduced and unable to carry out their normal function. Taking supplements of PEA (at levels much higher than those found in foods) overcomes this shortfall, often improving pain and inflammation.

What is PEA used for?

Suffering chronic pain or inflammation can destroy one's quality of life. Making matters worse, while many of the available analgesic and anti-inflammatory medicines do help, many have unpleasant side effects—especially when taken long-term.

PEA is a promising new type of treatment that may help to relieve painful symptoms and possibly reduce reliance on other drugs. In recent years, preclinical and clinical studies have shown PEA to be potentially useful in a wide range of therapeutic areas, including:

- Pain and chronic pain (e.g., back/neck pain, sciatic pain, neuralgia, radiculopathy, Complex Regional Pain Syndrome (CRPS), or chemotherapy-induced pain)¹
- Carpal tunnel syndrome²
- Fibromyalgia³
- Glaucoma⁴
- Diabetic neuropathy⁵ and retinopathy⁴
- Eczema (when applied to the affected area as a cream)⁶
- Migraine⁷
- Endometriosis⁸
- Neurodegenerative disorders (e.g. Parkinson's disease⁹, multiple sclerosis¹⁰)

FORMULÆ

THE ART & SCIENCE OF COMPOUNDING

Important note

PEA is a relatively new therapy, and we don't yet know if it is equally effective in all conditions or pain states. As a result, it is recommended that it be first taken in combination with one's existing medications, to reduce their dosages, to reduce their unpleasant side effects, or to reduce or prevent breakthrough episodes. If sufficiently effective, it could then be tried as a primary treatment.

Possible side effects

In all the studies undertaken by scientists so far, PEA has been found to be remarkably free of significant side effects—even at relatively high doses¹.

How to take PEA

Although PEA is available for purchase without a prescription, we highly recommend that you consult with your doctor before taking it.

PEA is available from Formulae as 300 mg capsules, but we can also reformulate it to suit your needs.

A typical dosage for pain would be 1 or 2 capsules taken twice daily (600-1200 mg total daily dosage). It is sometimes taken at the higher dose initially, for the first 3-6 weeks, then reduced to the lower dose. Like many analgesics, it may not work immediately. It is usually effective after 1-3 weeks of dosing, but treatment should be ceased if no benefit is seen after 3 months.

For dosages in other conditions, please consult with our pharmacists.

References

1. Gabrielson L, et al. (2016) Palmitoylethanolamide for the treatment of pain: pharmacokinetics, safety and efficacy. *Br J Clin Pharmacol*. 82: 932-942.
2. Evangelista M, et al. (2018) Ultra-micronized Palmitoylethanolamide Effects on Sleep-wake Rhythm and Neuropathic Pain Phenotypes in Patients with Carpal Tunnel Syndrome: An Open-label, Randomized Controlled Study. *CNS Neural Disord Drug Targets*. 2018;17(4):291-298.
3. Del Giorno R, et al. (2015) Palmitoylethanolamide in Fibromyalgia: Results from Prospective and Retrospective Observational Studies. *Pain Ther*. 4(2):169-78.
4. Keppel Hesselink JM, et al. (2015) Palmitoylethanolamide, a Natural Retinoprotectant: Its Putative Relevance for the Treatment of Glaucoma and Diabetic Retinopathy. *Journal of Ophthalmology*. Volume 2015, Article ID 430596.
5. Schifilliti C, et al. (2014) Micronized palmitoylethanolamide reduces the symptoms of neuropathic pain in diabetic patients. *Pain Res Treat*. 2014:849623.
6. Yuan C, et al. (2014) N-palmitoylethanolamine and N-acetyethanolamine are effective in asteatotic eczema: results of a randomized, double-blind, controlled study in 60 patients. *Clin Interv Aging*. 9:1163-9.
7. Dalla Volta G (2016) Ultramicrozized palmitoylethanolamide reduces frequency and pain intensity in migraine. A pilot study. *International Journal of Neurology and Brain Disorders*. 3. 1-5. 10.15436/2377-1348.16.019.
8. Indraccolo U and Barbieri F (2010) Effect of palmitoylethanolamide-polydatin combination on chronic pelvic pain associated with endometriosis: preliminary observations. *Eur J Obstet Gynecol Reprod Biol*. 150(1):76-9.
9. Brotini S, et al. (2017) Ultra-micronized Palmitoylethanolamide: An Efficacious Adjuvant Therapy for Parkinson's Disease. *CNS Neural Disord Drug Targets*. 16(6):705-713.
10. Orefice NS, et al. (2016) Oral Palmitoylethanolamide Treatment Is Associated with Reduced Cutaneous Adverse Effects of Interferon-β1a and Circulating Proinflammatory Cytokines in Relapsing-Remitting Multiple Sclerosis. *Neurotherapeutics*. 13(2):428-38.