

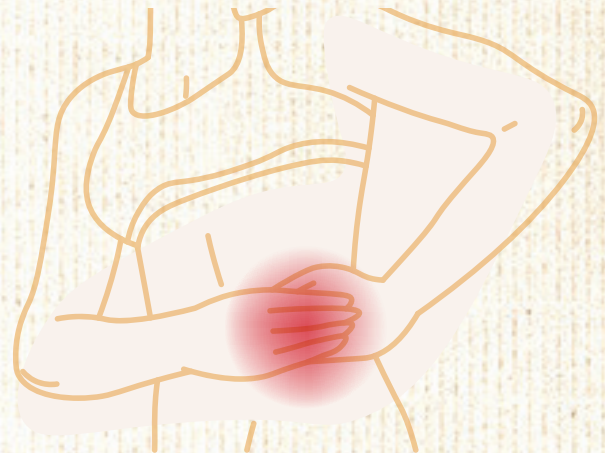
# New Roots Herbal

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## PEA Palmitoylethanolamide

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- » Relief from chronic pain and inflammation
- » Enhances the action of analgesics when used as coadjuvant
- » Safe alternative to cannabidiol (CBD)
- » No known drug interactions
- » No adverse effects
- » Does not create dependency



# PEA Palmitoiletanolamida

Palmitoylethanolamide is a natural compound synthesised by the body to protect cells from inflammation and pain. Under chronic conditions, the body does not produce enough PEA, and supplementation is then needed to relieve inflammation and pain.



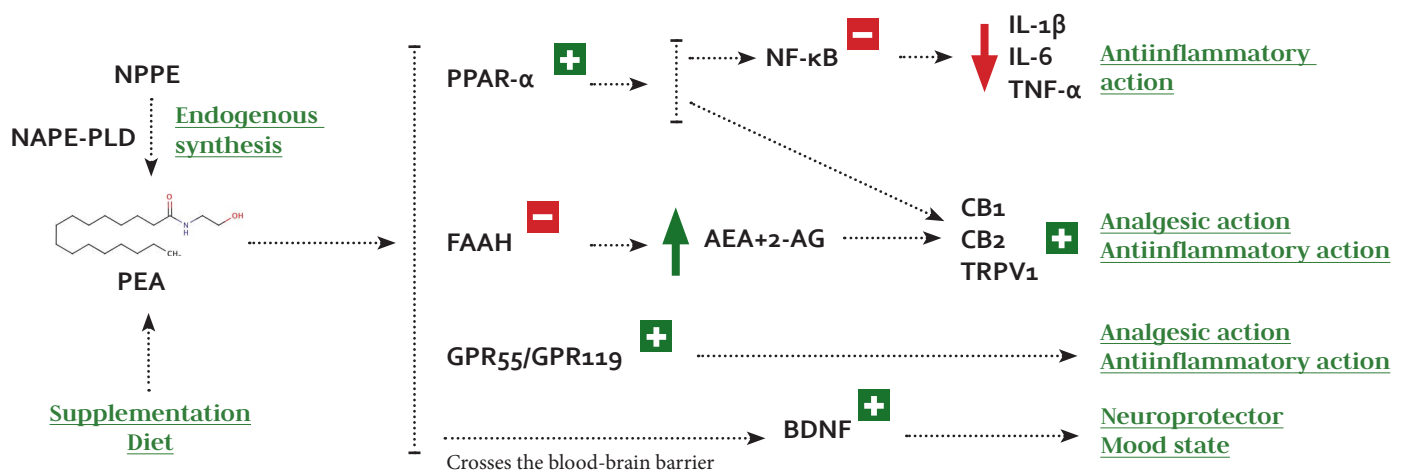
## Palmitoylethanolamide 600 mg/capsule

- » Relief from chronic pain and inflammation
- » Inhibits the release of inflammatory cytokines (IL-1 $\beta$  and IL-6) and TNF- $\alpha$
- » Endocannabinoid-type lipid mediator
- » Acts upon the cannabinoid receptors
- » Analgesic, neuroprotective and antiinflammatory effects
- » Alternative to CBD

### Indicaciones y usos

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|---|--|
| <ul style="list-style-type: none"> <li>+ <a href="#">Chronic pain</a></li> <li>+ <a href="#">Sciatica</a></li> <li>+ <a href="#">Osteoarthritis</a></li> <li>+ <a href="#">Migraine</a></li> <li>+ <a href="#">Carpal tunnel syndrome</a></li> <li>+ <a href="#">Chemotherapy-induced neuropathy</a></li> <li>+ <a href="#">Glaucoma</a></li> </ul> | <ul style="list-style-type: none"> <li>+ <a href="#">Burning mouth syndrome</a></li> <li>+ <a href="#">Major depressive disorder</a></li> <li>+ <a href="#">Autism</a></li> <li>+ <a href="#">Myasthenia gravis</a></li> <li>+ <a href="#">Temporomandibular joint pain</a></li> <li>+ <a href="#">Dolor de la articulación temporomandibular</a></li> </ul> |
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## » Mechanisms of action of palmitoylethanolamide



PEA: palmitoylethanolamide  
 NPPE: N-palmitoyl phosphatidylethanolamine  
 NAPE-PLD: N-acyl phosphatidylethanolamine phospholipase D  
 PPAR- $\alpha$ : peroxisome proliferator-activated receptor alpha  
 GPR55/GPR119: G-protein-coupled receptor (55/119)  
 FAAH: Fatty acid amide hydrolase

AEA: anandamide (endocannabinoid)  
 2-AG: 2-arachidonylglycerol (endocannabinoid)  
 CB1/CB2: cannabinoid receptors 1 and 2  
 TRPV1: transient receptor potential vanilloid type 1  
 NF- $\kappa$ B: nuclear factor kappa light chain enhancer of activated B cells  
 BDNF: brain-derived neurotrophic factor

**+** Activates **-** Inhibits

## » Clinical trial

Design	Dose	Result	Ref.
<b>Sciatica</b> 636 patients with sacrolumbar pain (sciatica).	300 mg/day or 600 mg/day	Significant reduction of pain.	6
<b>Generalised pain relief</b> 610 patients with chronic pain.	600 mg 2 times/day 600 mg/day	Significant reduction of pain intensity regardless of the disease condition associated with the pain. Both as monotherapy and as an adjuvant to analgesics.	7
<b>Chemotherapy-induced neuropathy</b> 20 patients with chemotherapy-induced painful neuropathy.	300 mg 2 times/day	Significant improvement of pain and myelinated nerve fibres. Heat perception thresholds remained unchanged.	8
<b>Migraine</b> 70 paediatric patients (5-17 years of age) diagnosed with migraine without aura.	600 mg/day	Reduction in the frequency of headaches, the number of attacks per month, the average intensity of attacks, and the percentage of patients with severe attacks.	9
<b>Glaucoma</b> 40 patients with stable glaucoma subjected to topical monotherapy.	600 mg/day	Significantly greater P50 wave amplitude, significantly lower intraocular pressure, and higher quality of life score.	10
<b>Glaucoma</b> 32 patients with normal tension glaucoma.	300 mg 2 times/day	Significant reduction of intraocular pressure and improvement of visual field indices.	11
<b>Burning mouth syndrome</b> 35 patients with burning mouth syndrome.	600 mg 2 times/day	Significant reduction of burning sensation in the mouth. There were no apparent treatment side effects.	12
<b>Major depressive disorder</b> 54 study participants with major depressive disorder.	600 mg 2 times/day	Significant reduction of HAM-D scores. Higher response rate and significantly greater improvement of the depressive symptoms.	13
<b>Autism</b> 70 children (4-12 years of age) with autism and irritability symptoms (moderate to severe).	600 mg 2 times/day (+ risperidone)	Improvement of symptoms of irritability and hyperactivity/non-compliance with the aberrant behaviour checklist (ABC). Inappropriate speech also improved.	14
<b>Myasthenia gravis</b> 22 participants with myasthenia gravis.	600 mg 2 times/day	Significant effect upon the quantitative myasthenia gravis score (QMG) and repetitive nerve stimulation (RNS) test of the masseter nerve. Reduces level of disability and decreasing muscle response.	15
<b>Carpal tunnel syndrome</b> Patients with moderate carpal tunnel syndrome.	600 mg 2 times/day	Improvement of reduction of median nerve latency time induced by carpal tunnel syndrome, as well as of the symptoms of discomfort and Tinel's sign.	16
<b>Carpal tunnel syndrome</b> 42 patients scheduled for carpal tunnel syndrome surgery and with sleep disorders and painful symptoms.	600 mg 2 times/day	Significant improvement of overall sleep quality and prolongation of continuous sleep time. Reduction of latency and sleep disturbances, and of help in significantly reducing the painful symptoms.	17
<b>Temporomandibular joint (TMJ) pain</b> 24 patients with arthralgia or osteoarthritis of the TMJ.	300 mg morning and 600 mg night	Significantly greater pain reduction versus the ibuprofen treatment group. Greater improvement of maximum mouth opening.	18
<b>Osteoarthritis</b> 111 adults with mild to moderate osteoarthritis of the knee.	300 mg 2 times/day	Significant reduction of total, pain, stiffness and function scores of the WOMAC index. The patients also experienced significant reduction of pain and anxiety.	19
<b>Parkinson's disease</b> 30 patients with Parkinson's disease receiving levodopa.	600 mg/day	Coadjuvant treatment significantly reduced the motor and non-motor symptoms. The number of patients with baseline symptoms decreased after one year of treatment.	20
<b>Cold and flu:</b> 6 clinical trials, with a total of 3627 patients, on safety and efficacy against flu and colds.	From 600 mg/day to 1800 mg/day	During the flu season, treatment proved effective, with a prophylactic effect. No side effects.	21



Nutritional information:	1 capsule
Micronised palmitoylethanolamide	600 mg

**Recommended daily dose:**  
1-2 capsules per day. Consult the professional in the case of use for more than 3 months.

**Format:**  
60 capsules.

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