Trident SAP 65:10 • High-EPA SAP

Science-based high-dose EPA for mental health and optimal mood balance

Mental health serves as the cornerstone of an individual's wellbeing. Mood imbalances can result in a variety of symptoms that may include fatigue, difficulty in concentrating, change in appetite, irritability, agitation, withdrawal, insomnia, or excessive sleeping. Imbalances in endogenous chemical messengers—called neurotransmitters—in the brain are thought to negatively affect mental health. Pharmaceutical agents used for ameliorating mood imbalances have unwanted, negative side effects. An extensive body of evidence-based research emphasizes the importance of fish oil, specifically EPA, in supporting positive mental health and maintenance of mood balance, especially perinatal and postpartum mental wellbeing. **Trident SAP 65:10** and **High-EPA SAP** are fish oils of exceptional purity, standardized to the highest concentration. **Trident SAP 65:10** and **High-EPA SAP** with a high ratio favouring EPA promote optimal brain function by positively driving eicosanoid metabolism and eliciting healthy inflammatory response.

ACTIVE INGREDIENTS

Trident SAP 65:10

Each softgel contains:

Fish oil	1400 mg
Providing:	
Eicosapentaenoic acid [EPA; 20:5(*n*-3)]	650 mg
Docosahexaenoic acid [DHA; 22:6(*n*-3)]	100 mg
Vitamin E (D-α-tocopherol) (from non-GMO sunflower) (5 IU)	3.35 mg AT

High-EPA SAP

Each softgel contains:

Fish oil	1366 mg
Providing:	
Eicosapentaenoic acid [EPA; 20:5(*n*-3)]	1000 mg
Docosahexaenoic acid [DHA; 22:6(*n*-3)]	100 mg
Vitamin E (D-α-tocopherol) (0.63 IU)	0.42 mg AT
(from non-GMO sunflower mixed tocopherols)	

EPA and DHA supplied in an ethyl ester form

From wild deep-sea fish oil: sardine (*Sardina pilchardus*; whole) and/or anchovy (*Engraulis encrasicolus*; whole). Pharmaceutical grade. Molecularly distilled and/or supercritical-CO_2 extracted.

Other ingredients: Softgel capsule (made of fish gelatin, glycerin, and purified water).

Contain no: Gluten, soy, wheat, corn, eggs, dairy, yeast, citrus, preservatives, artificial flavour or colour, starch, or sugar.

These products are non-GMO.

Trident SAP 65:10 contains 60 or 120 softgels per bottle. **High-EPA SAP** contains 60 softgels per bottle.

DIRECTIONS FOR USE

Trident SAP 65:10: Adults: Take 1–4 softgels daily or as directed by your healthcare practitioner.
High-EPA SAP: Adults: Take 1–2 softgels daily with meals or as directed by your healthcare practitioner.

INDICATIONS

Trident SAP 65:10 and **High-EPA SAP** can help maintain perinatal and postpartum mental health, and can be used to:

- Support optimal mood balance.
- Promote cognitive health.
- Reinforce positive eicosanoid metabolism.
- Enhance healthy inflammatory response.

CAUTIONS AND WARNINGS

Do not use if seal is broken. Keep out of reach of children.

PURITY, CLEANLINESS, AND STABILITY

All ingredients listed for each **Trident SAP 65:10** and **High-EPA SAP** lot number have been tested by an ISO 17025–accredited third-party laboratory for identity, potency, and purity.

Trident SAP 65:10 and **High-EPA SAP** contain vitamin E as an antioxidant, and are hermetically sealed to be secure against entry of oxygen, ensuring maximum purity, freshness and stability of the oils through to expiration.

Scientific Advisory Panel (SAP): adding nutraceutical research to achieve optimum health

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Depression is a condition that affects millions of people worldwide. It can affect anyone from children to adults to the elderly. For major depression to be diagnosed, a patient must report a minimum of five depressive symptoms that have been lasting for at least two weeks.[1] Substantial research support the fact that omega-3 fatty acid supplementation, especially a higher ratio of eicosapentaenoic acid [EPA; 20:5(*n*-3)] to docosahexaenoic acid [DHA; 22:6(*n*-3)], serves as the most effective strategy for ameliorating such symptoms of depression.[2, 3, 4]

EPA FOR OPTIMAL MENTAL HEALTH

The short-term efficacy of omega-3 fatty acids was examined in patients with major depressive episodes (MDE) for 8 weeks.[2] Patients in the treatment group received 1050 mg/d EPA and 150 mg/d DHA, with the control group receiving a placebo.[2] It was found that omega-3 supplementation improved symptoms more effectively in patients with MDE compared to the placebo.[2] In patients with anxiety and MDE, the omega-3 supplementation was not found to be significantly beneficial.[2] Another study compared the effects of omega-3 fatty acids, as monotherapy and in combination with fluoxetine, on patients' depressive symptoms and cortisol levels.[3] Patients received either 1000 mg/d EPA, 20 mg/d fluoxetine, or both, for 8 weeks. Plasma cortisol levels decreased in all three treatment groups, without a significant difference between the three groups.[3] This suggests that the therapeutic effect of EPA may be exerted through its ability to lower cortisol levels.[3]

EPA SUPPLEMENTATION AND MENTAL WELLBEING IN THE ELDERLY

A placebo-controlled, double-blind study was conducted in elderly women between 66 and 95 years of age with symptoms of depression.[4] Participants were given either 1.67 g/d EPA and 0.83 g/d DHA, or placebo. Based on the Geriatric Depression Scale after 8 wk treatment, omega-3 supplementation was found to alleviate the symptoms of depression as well as enhance the quality of life in elderly female patients.[4]

DEPRESSION AND CARDIOVASCULAR DISEASE

Cardiovascular disease (CVD) is the leading cause of mortality in patients with major depression.[5] Patients who have experienced a cardiovascular event are also more likely to experience major depression and an increased risk of mortality.[5] Deficiency of omega-3 fatty acids is proposed to play an important role in the pathology of both CVD and major depression. After an acute coronary event (ACE), patients who developed depression had lower serum levels of omega-3 fatty acids compared to those who did not experience depression after an ACE.[5] Prospective studies have found that dietary or membrane levels of EPA and DHA are inversely associated with higher risks for both major depression and CVD. Such strong evidence warrants the need for future research in exploring the effects of improving the omega-3 status of patients with CVD or major depression.[5]

SIGNIFICANCE OF EPA:DHA RATIO

The effect of the combination of omega-3 fatty acids and sertraline was evaluated for treatment of patients with depression and coronary heart disease.[6] In this randomized, double-blind study, all patients were given 50 mg/d sertraline, and either 2 g/d of omega-3 (930 mg EPA and 750 mg DHA) for 10 weeks or a placebo.[6] The outcomes assessed using the Beck Depression Inventory and the Hamilton Rating Scale for Depression showed no significant differences between the groups.[6] Similarly, in another study where a supplementation of 1:4 ratio of EPA (420 mg):DHA (1680 mg)/d was provided for 6 weeks in women with perinatal depression, no benefits from the therapy were observed.[7] These studies suggest that supplementation of lower ratios of EPA:DHA is not effective for the management of depression, and underscores the importance of high-ratio EPA:DHA omega-3 supplementation in this population.

A meta-analysis comparing the benefits of EPA versus DHA in omega-3 supplementation in mitigating symptoms of depression found that EPA was likely more efficacious than DHA in the management of depression.[8] Nevertheless, it was suggested that larger, well-designed, randomized controlled trials are required to confirm this finding.[8]

ROLE OF EPA IN PERINATAL AND POSTPARTUM MENTAL HEALTH

Depression during pregnancy is quite common, and management can be challenging. As fetal demand of omega-3 fatty acids remains very high during pregnancy, the associated decrease in mothers may leave them prone to depression.[9] A study exploring monotherapy for the treatment of depression during pregnancy was performed.[9] Using an 8-week, double-blind, placebo-controlled design, the study compared the supplementation of 2.2 g/d EPA and 1.2 g/d DHA to placebo for major depressive disorder in pregnancy.[9] Participants who received omega-3 supplementation exhibited lower depressive symptoms compared to those in the control group.[9] Importantly, the omega-3 supplementation was well-tolerated, without any adverse effects on either the women or newborns.[9]

In a study in women with postpartum depression (PPD), subjects were given either 0.5, 1.4, or 2.8 g/d of a 1.5:1 ratio EPA:DHA supplement for 8 weeks.[10] Women were assessed before and after treatment, with the Edinburgh Postnatal Depression Scale and the Hamilton Rating Scale for Depression.[10] Before treatment, the mean scores were 18.1 and 19.1, respectively, while the after-treatment mean scores were 9.3 and 10.0.[10] The positive results seen in this small trial are encouraging but warrant the need for further research in this population group.[10]

EPA IN HEALTHY INFLAMMATION AND EICOSANOID METABOLISM

Chronic inflammation is thought to play a major role in depression.[11] Recently, the importance of EPA and its metabolites in modulating several key biological functions is being increasingly realized.[12, 13] One of these key functions of EPA is to shift synthesis away from inflammatory eicosanoids and drive towards the production of anti-inflammatory eicosanoids by competing with the *n*-6 fatty acid metabolite arachidonic acid.[12, 13] Evidence suggests that individuals with MDD exhibit elevated inflammatory markers.[14] The role of inflammatory biomarkers in clinical responses to omega-3 fatty acids was evaluated in patients diagnosed with major depressive disorder (MDD) based on a 17-item Hamilton Rating Scale for Depression score.[14] It was found that patients with higher inflammatory status responded to EPA compared to placebo.[14] The study results emphasize the role of inflammation and the responsiveness to EPA therapy for the management of depression.

Taken together, based on the existing scientific evidence, it can be concluded that oral supplementation of omega-3 fatty acids with higher ratios of EPA:DHA is more effective for the promotion of optimal mental health by multiple mechanisms, including those eliciting healthy inflammatory responses.

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