

PATIENT INFORMATION

Omega-3-Acid Ethyl Esters Capsules USP

Read this Patient Information before you start taking omega-3-acid ethyl esters, and each time you get a refill. There may be new information. This information does not take the place of talking with your doctor about your medical condition or your treatment.

What is Omega-3-Acid Ethyl Esters Capsules?

Omega-3-acid ethyl esters is a prescription medicine, used along with a low fat and low cholesterol diet to lower very high triglyceride (fat) levels in adults.

It is not known if omega-3-acid ethyl esters changes your risk of having inflammation of your pancreas (pancreatitis).

It is not known if omega-3-acid ethyl esters prevents you from having a heart attack or stroke.

It is not known if omega-3-acid ethyl esters is safe and effective in children.

Who should not take Omega-3-Acid Ethyl Esters Capsules?

Do not take omega-3-acid ethyl esters if you are allergic to omega-3-acid ethyl esters or any of the ingredients in omega-3-acid ethyl esters. See the end of this leaflet for a complete list of ingredients in omega-3-acid ethyl esters.

What should I tell my doctor before taking Omega-3-Acid Ethyl Esters Capsules?

Before you take Omega-3-acid ethyl esters, tell your doctor if you:

- have diabetes.
- have a low thyroid problem (hypothyroidism).
- have a liver problem.
- have a pancreas problem.
- have a certain heart rhythm problem called atrial fibrillation or flutter.
- are allergic to fish or shellfish. It is not known if people who are allergic to fish or shellfish are also allergic to omega-3-acid ethyl esters.
- are pregnant, or plan to become pregnant. It is not known if omega-3-acid ethyl esters will harm your unborn baby.
- are breastfeeding or plan to breastfeed. Omega-3-acid ethyl esters can pass into your breast milk. You and your doctor should decide if you will take omega-3-acid ethyl esters or breastfeed.

Tell your doctor about all the medicines you take, including prescription and non-prescription medicine, vitamins, and herbal supplements.

Omega-3-acid ethyl esters can interact with certain other medicines that you are taking. Using omega-3-acid ethyl esters with medicines that affect blood clotting (anticoagulants or blood thinners) may cause serious side effects.

Know the medicines you take. Keep a list of them with you to show your doctor and pharmacist when you get a new medicine.

How should I take Omega-3-Acid Ethyl Esters Capsules?

- Take omega-3-acid ethyl esters exactly as your doctor tells you to take it.
- You should not take more than 4 capsules of omega-3-acid ethyl esters each day. Either take all 4 capsules at one time, or 2 capsules two times a day.
- Do not change your dose or stop omega-3-acid ethyl esters without talking to your doctor.
- Take omega-3-acid ethyl esters with or without food.
- Take omega-3-acid ethyl esters capsules whole. Do not break, crush, dissolve, or chew omega-3-acid ethyl esters capsules before swallowing. If you cannot swallow omega-3-acid ethyl esters capsules whole, tell your doctor. You may need a different medicine.
- Your doctor may start you on a diet that is low in saturated fat, cholesterol and carbohydrates, and low in added sugars before giving you omega-3-acid ethyl esters. Stay on this diet while taking omega-3-acid ethyl esters.
- Your doctor should do blood tests to check your triglyceride, bad cholesterol and liver function levels while you take omega-3-acid ethyl esters.

(continued) →

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use Omega-3-acid ethyl esters safely and effectively. See full prescribing information for Omega-3-acid ethyl esters capsules.

Omega-3-Acid Ethyl Esters Capsules USP, for oral use

Initial U.S. Approval: 2004

RECENT MAJOR CHANGES

Indications and Usage, Limitations of Use (1) 06/2013

INDICATIONS AND USAGE

Omega-3-acid ethyl esters is a combination of ethyl esters of omega 3 fatty acids, principally EPA and DHA, indicated as an adjunct to diet to reduce triglyceride (TG) levels in adult patients with severe (≥500 mg/dL) hypertriglyceridemia (HTG). (1)

Limitations of Use:

- The effect of omega-3-acid ethyl esters on the risk for pancreatitis has not been determined. (1)
- The effect of omega-3-acid ethyl esters on cardiovascular mortality and morbidity has not been determined. (1)

DOSAGE AND ADMINISTRATION

- The daily dose of omega-3-acid ethyl esters is 4 grams per day taken as a single 4-gram dose (4 capsules) or as two 2-gram doses (2 capsules given twice daily). (2)
- Patients should be advised to swallow omega-3-acid ethyl esters capsules whole. Do not break open, crush, dissolve or chew omega-3-acid ethyl esters. (2)

DOSAGE FORMS AND STRENGTHS

Capsules: 1-gram (3)

CONTRAINDICATIONS

Omega-3-acid ethyl esters is contraindicated in patients with known hypersensitivity (e.g., anaphylactic reaction) to omega-3-acid ethyl esters or any of its components. (4)

WARNINGS AND PRECAUTIONS

- In patients with hepatic impairment, monitor ALT and AST levels periodically during therapy. (5.1)
- Omega-3-acid ethyl esters may increase levels of LDL. Monitor LDL levels periodically during therapy. (5.1)
- Use with caution in patients with known hypersensitivity to fish and /or shellfish. (5.2)
- There is a possible association between omega-3-acid ethyl esters and more frequent recurrences of symptomatic atrial fibrillation or flutter in patients with paroxysmal or persistent atrial fibrillation, particularly within the first months of initiating therapy. (5.3)

ADVERSE REACTIONS

The most common adverse reactions (incidence >3% and greater than placebo) were eructation, dyspepsia and taste perversion. (6)

To report SUSPECTED ADVERSE REACTIONS, contact Par Pharmaceutical at 1-800-828-9393 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DRUG INTERACTIONS

Omega-3-acids may prolong bleeding time. Patients taking omega-3-acid ethyl esters and an anticoagulant or other drug affecting coagulation (e.g., anti-platelet agents) should be monitored periodically. (7.1)

USE IN SPECIFIC POPULATIONS

- Pregnancy: Use during pregnancy only if the potential benefit justifies the potential risk to the fetus. (8.1)

See 17 for PATIENT COUNSELING INFORMATION and FDA-approved patient labeling.

Revised: 06/2015

FULL PRESCRIBING INFORMATION: CONTENTS*

- 1 INDICATIONS AND USAGE
- 2 DOSAGE AND ADMINISTRATION
- 3 DOSAGE FORMS AND STRENGTHS
- 4 CONTRAINDICATIONS
- 5 WARNINGS AND PRECAUTIONS
 - 5.1 Monitoring: Laboratory Tests
 - 5.2 Fish Allergy
 - 5.3 Recurrent Atrial Fibrillation (AF) or Flutter
- 6 ADVERSE REACTIONS
 - 6.1 Clinical Trials Experience
 - 6.2 Postmarketing Experience
- 7 DRUG INTERACTIONS
- 8 USE IN SPECIFIC POPULATIONS
 - 8.1 Pregnancy
 - 8.3 Nursing Mothers
 - 8.4 Pediatric Use
 - 8.5 Geriatric Use
- 9 DRUG ABUSE AND DEPENDENCE
- 11 DESCRIPTION
- 12 CLINICAL PHARMACOLOGY
 - 12.1 Mechanism of Action
 - 12.3 Pharmacokinetics
- 13 NONCLINICAL TOXICOLOGY
 - 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
- 14 CLINICAL STUDIES
 - 14.1 Severe Hypertriglyceridemia
- 16 HOW SUPPLIED/STORAGE AND HANDLING
- 17 PATIENT COUNSELING INFORMATION

*Sections or subsections omitted from the full prescribing information are not listed.

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

Omega-3-acid ethyl esters is indicated as an adjunct to diet to reduce triglyceride (TG) levels in adult patients with severe (≥500 mg/dL) hypertriglyceridemia (HTG).

Usage Considerations: Patients should be placed on an appropriate lipid-lowering diet before receiving omega-3-acid ethyl esters and should continue this diet during treatment with omega-3-acid ethyl esters.

Laboratory studies should be done to ascertain that the lipid levels are consistently abnormal before instituting therapy with omega-3-acid ethyl esters. Every attempt should be made to control serum lipids with appropriate diet, exercise, weight loss in obese patients, and control of any medical problems such as diabetes mellitus and hypothyroidism that are contributing to the lipid abnormalities. Medications known to exacerbate hypertriglyceridemia (such as beta blockers, thiazides, estrogens) should be discontinued or changed if possible prior to consideration of triglyceride-lowering drug therapy.

Limitations of Use:

The effect of omega-3-acid ethyl esters on the risk for pancreatitis has not been determined.

The effect of omega-3-acid ethyl esters on cardiovascular mortality and morbidity has not been determined.

2 DOSAGE AND ADMINISTRATION

- Assess triglyceride levels carefully before initiating therapy. Identify other causes (e.g., diabetes mellitus, hypothyroidism, or medications) of high triglyceride levels and manage as appropriate. [see **Indications and Usage** (1)].
- Patients should be placed on an appropriate lipid-lowering diet before receiving omega-3-acid ethyl esters, and should continue this diet during treatment with omega-3-acid ethyl esters. In clinical studies, omega-3-acid ethyl esters was administered with meals.

The daily dose of Omega-3-Acid Ethyl Esters Capsules, USP is 4 grams per day. The daily dose may be taken as a single 4-gram dose (4 capsules) or as two 2-gram doses (2 capsules given twice daily).

Patients should be advised to swallow omega-3-acid ethyl esters capsules whole. Do not break open, crush, dissolve or chew omega-3-acid ethyl esters.

3 DOSAGE FORMS AND STRENGTHS

Omega-3-acid ethyl esters capsules are supplied as 1-gram transparent soft-gelatin capsules filled with clear to yellowish liquid and bearing the designation P019.

4 CONTRAINDICATIONS

Omega-3-acid ethyl esters is contraindicated in patients with known hypersensitivity (e.g., anaphylactic reaction) to omega-3-acid ethyl esters or any of its components.

5 WARNINGS AND PRECAUTIONS

5.1 Monitoring: Laboratory Tests

In patients with hepatic impairment, alanine aminotransferase (ALT) and aspartate aminotransferase (AST) levels should be monitored periodically during therapy with omega-3-acid ethyl esters. In some patients, increases in ALT levels without a concurrent increase in AST levels were observed.

In some patients, omega-3-acid ethyl esters increases LDL-C levels. LDL-C levels should be monitored periodically during therapy with omega-3-acid ethyl esters.

Laboratory studies should be performed periodically to measure the patient's TG levels during therapy with omega-3-acid ethyl esters.

5.2 Fish Allergy

Omega-3-acid ethyl esters contains ethyl esters of omega-3 fatty acids (EPA and DHA) obtained from the oil of several fish sources. It is not known whether patients with allergies to fish and/or shellfish, are at increased risk of an allergic reaction to omega-3-acid ethyl esters. Omega-3-acid ethyl esters should be used with caution in patients with known hypersensitivity to fish and/or shellfish.

5.3 Recurrent Atrial Fibrillation (AF) or Flutter

In a double-blind, placebo-controlled trial of 663 subjects with symptomatic paroxysmal AF (n=542) or persistent AF (n=121), recurrent AF or flutter was observed in subjects randomized to omega-3-acid ethyl esters who received 8 grams/day for 7 days and 4 grams/day thereafter for 23 weeks at a higher rate relative to placebo. Subjects in this trial had median baseline triglycerides of 127 mg/dL, had no substantial structural heart disease, were taking no anti-arrhythmic therapy (rate control permitted), and were in normal sinus rhythm at baseline.

At 24 weeks, in the paroxysmal AF stratum, there were 129 (47%) first recurrent symptomatic AF or flutter events on placebo and 141 (53%) on omega-3-acid ethyl esters [primary endpoint, HR 1.19; 95% CI: 0.93, 1.35]. In the persistent AF stratum, there were 19 (35%) events on placebo and 34 (52%) events on omega-3-acid ethyl esters [HR 1.63; 95% CI: 0.91, 2.18]. For both strata combined, the HR was 1.25; 95% CI: 1.00, 1.40. Although the clinical significance of these results is uncertain, there is a possible association between omega-3-acid ethyl esters and more frequent recurrences of symptomatic atrial fibrillation or flutter in patients with paroxysmal or persistent atrial fibrillation, particularly within the first 2 to 3 months of initiating therapy.

Omega-3-acid ethyl esters is not indicated for the treatment of AF or flutter.

6 ADVERSE REACTIONS

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Adverse reactions reported in at least 3% and at a greater rate than placebo for subjects treated with omega-3-acid ethyl esters based on pooled data across 23 clinical studies are listed in **Table 1**.

Table 1. Adverse Reactions Occurring at Incidence ≥3% and Greater than Placebo in Clinical Trials of omega-3-acid ethyl esters

Adverse Reaction ^a	Omega 3 (N = 655)		Placebo (N = 370)	
	n	%	n	%
Eructation	29	4	5	1
Dyspepsia	22	3	6	2
Taste perversion	27	4	1	<1

^a Trials included subjects with HTG and severe HTG.

Additional adverse reactions from clinical studies are listed below:

Digestive System: Constipation, gastrointestinal disorder and vomiting.

Metabolic and Nutritional Disorders: Increased ALT, and increased AST.

Skin: Pruritus, and rash.

6.2 Postmarketing Experience

In addition to adverse reactions reported from clinical trials, the events described below have been identified during post-approval use of omega-3-acid ethyl esters. Because these events are reported voluntarily from a population of unknown size, it is not possible to reliably estimate their frequency or to always establish a causal relationship to drug exposure.

The following events have been reported: anaphylactic reaction, hemorrhagic diathesis

7 DRUG INTERACTIONS

7.1 Anticoagulants or Other Drugs Affecting Coagulation

Some trials with omega-3-acids demonstrated prolongation of bleeding time. The prolongation of bleeding time reported in these trials has not exceeded normal limits and did not produce clinically significant bleeding episodes. Clinical trials have not been done to thoroughly examine the effect of omega-3-acid ethyl esters and concomitant anticoagulants. Patients receiving treatment with omega-3-acid ethyl esters and an anti-coagulant or other drug affecting coagulation (e.g., anti-platelet agents) should be monitored periodically.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Pregnancy Category C: There are no adequate and well-controlled studies in pregnant women. It is unknown whether omega-3-acid ethyl esters can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. Omega-3-acid ethyl esters should be used during pregnancy only if the potential benefit to the patient justifies the potential risk to the fetus.

Animal Data:

Omega-3-acid ethyl esters have been shown to have an embryocidal effect in pregnant rats when given in doses resulting in exposures 7 times the recommended human dose of 4 grams/day based on a body surface area comparison.

In female rats given oral gavage doses of 100, 600, and 2,000 mg/kg/day beginning 2 weeks prior to mating and continuing through gestation and lactation, no adverse effects were observed in the high dose group (5 times human systemic exposure following an oral dose of 4 grams/day based on body surface area comparison).

In pregnant rats given oral gavage doses of 1,000, 3,000, and 6,000 mg/kg/day from gestation day 6 through 15, no adverse effects were observed (14 times human systemic exposure following an oral dose of 4 grams/day based on a body surface area comparison).

In pregnant rats given oral gavage doses of 100, 600, and 2,000 mg/kg/day from gestation day 14 through lactation day 21, no adverse effects were seen at 2,000 mg/kg/day (5 times the human systemic exposure following an oral dose of 4 grams/day based on a body surface area comparison). However, decreased live births (20% reduction) and decreased survival to postnatal day 4 (40% reduction) were observed in a dose-ranging study using higher doses of 3,000 mg/kg/day (7 times the human systemic exposure following an oral dose of 4 grams/day based on a body surface area comparison).

In pregnant rabbits given oral gavage doses of 375, 750, and 1,500 mg/kg/day from gestation day 7 through 19, no findings were observed in the fetuses in groups given 375 mg/kg/day (2 times human systemic exposure following an oral dose of 4 grams/day based on a body surface area comparison). However, at higher doses, evidence of maternal toxicity was observed (4 times human systemic exposure following an oral dose of 4 grams/day based on a body surface area comparison).

8.3 Nursing Mothers

Studies with omega-3-acid ethyl esters have demonstrated excretion in human milk. The effect of this excretion on the infant of a nursing mother is unknown; caution should be exercised when omega-3-acid ethyl esters is administered to a nursing mother. An animal study in lactating rats given oral gavage ¹⁴C-ethyl EPA demonstrated that drug levels were 6 to 14 times higher in milk than in plasma.

8.4 Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

8.5 Geriatric Use

A limited number of subjects older than 65 years were enrolled in the clinical trials of omega-3-acid ethyl esters. Safety and efficacy findings in subjects older than 60 years did not appear to differ from those of subjects younger than 60 years.

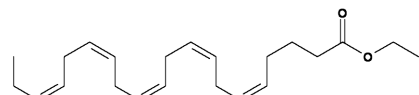
9 DRUG ABUSE AND DEPENDENCE

Omega-3-acid ethyl esters does not have any known drug abuse or withdrawal effects.

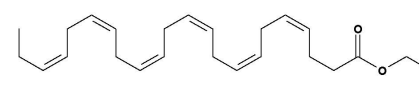
11 DESCRIPTION

Omega-3-acid ethyl esters, a lipid-regulating agent, is supplied as a liquid-filled gel capsule for oral administration. Each 1-gram capsule of omega-3-acid ethyl esters contains at least 900 mg of the ethyl esters of omega-3 fatty acids sourced from fish oils. These are predominantly a combination of ethyl esters of eicosapentaenoic acid (EPA - approximately 465 mg) and docosahexaenoic acid (DHA - approximately 375 mg).

The structural formula of EPA ethyl ester is C₂₂H₃₄O₂, and the molecular weight of EPA ethyl ester is 330.51. The structural formula of EPA ethyl ester is:



The structural formula of DHA ethyl ester is C₂₄H₃₆O₂, and the molecular weight of DHA ethyl ester is 356.55. The structural formula of DHA ethyl ester is:



Omega-3-Acid Ethyl Esters Capsules USP, also contain the following inactive ingredients: gelatin, glycerin, and purified water, α-tocopherol, 3.8-4.2 mg/capsule, (components of the capsule shell) alcohol, ammonium hydroxide, isopropyl alcohol, polyethylene glycol, polyvinyl acetate phthalate, propylene glycol, titanium dioxide. May also contain shellac glaze, simethicone, and n-butyl alcohol.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

The mechanism of action of omega-3-acid ethyl esters is not completely understood. Potential mechanisms of action include inhibition of acyl-CoA:1,2-diacylglycerol acyltransferase, increased mitochondrial and peroxisomal β-oxidation in the liver, decreased lipogenesis in the liver, and increased plasma lipoprotein lipase activity. Omega-3-acid ethyl esters may

