The Longwood Herbal Task Force
(http://www.mcp.edu/herbal/default.htm) and
The Center for Holistic Pediatric Education and Research
(http://www.childrenshospital.org/holistic/)

Evening Primrose (*Oenethera biennsis*)

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Principal Proposed Uses: Anti-inflammatory for eczema, cyclic mastalgia, rheumatoid arthritis
Other Proposed Uses: Antithrombotic, antilipemic, diabetic peripheral neuropathy, multiple sclerosis, chronic fatigue syndrome, inflammatory bowel disease

Overview

The major American uses for evening primrose oil are to treat inflammatory disorders ranging from eczema to rheumatoid arthritis; it is also used to treat cyclic mastalgia associated with premenstrual syndrome, inflammatory bowel disease and diabetic peripheral neuropathy. Its constituents include the essential fatty acid, linoleic acid (LA), and gamma linolenic acid (GLA). These fatty acids serve as precursors to arachidonic acid metabolism and to eicosanoid and anti-inflammatory prostaglandins and leukotrienes. Despite convincing biochemical rationale, data from animal studies and widespread use in Europe, the current scientific evidence regarding EPO's effectiveness supports only a modest role as an adjunctive therapy for eczema, premenstrual syndrome (particularly cyclic mastalgia), rheumatoid arthritis, hypercholesterolemia and diabetic peripheral neuropathy. The evidence is insufficient to support its routine use as an adjunctive therapy for inflammatory bowel disease or chronic fatigue syndrome

Side effects from evening primrose oil are mild; they include diarrhea and headache, but are seldom severe enough to discontinue treatment. There are no studies evaluating toxicity during pregnancy, lactation or childhood.

Historical and Popular Uses

As a North American native wild flower, the evening primrose was first used medicinally by Native American healers as a treatment for coughs, bruises and upset stomachs. Following its introduction to European settlers, it found its way across the Atlantic to Europe. There its essential oil was tried for weight loss, treatment of heart disease and even as a hangover remedy! Evening primrose is not used in traditional Chinese or Ayurvedic medicine.

Currently evening primrose oil (EPO) is used frequently in Europe to treat a variety of ailments ranging from eczema to diabetic peripheral neuropathy to cyclic mastalgia. American naturopathic physicians regularly recommend EPO for a wide range of inflammatory diseases including eczema, asthma, allergies, arthritis, lupus and the troublesome symptoms of menopause. Other uses include treatment of premenstrual syndrome, inflammatory bowel disease, chronic fatigue syndrome, Raynaud's phenomenon and multiple sclerosis.

EPO is one of best natural sources of the essential fatty acid linoleic acid and its derivative gamma linolenic acid; other herbal sources of these fatty acids are borage and black currant oils.

Botany

Medicinal species: Oenothera biennis

Common names: Evening primrose, King's cureall

Botanical family: Onagraceae (primrose) family

Plant description: Evening primrose is a three to six foot tall biennial, fragrant, yellow wildflower that grows in sunny, well-drained fields, roadsides, railroad embankments, and waste areas. The large blooms typically last only one evening.

Where it's grown: Because of its popularity, evening primrose is now grown commercially in over 15 countries worldwide. The commercial varieties contain fairly consistent amounts of the active ingredients. More than 300 tons of seeds are commercially produced in the United States and Canada annually. Most US production is in California, North Carolina, South Carolina, Oregon and Texas[1].

Biochemistry

Evening Primrose: Potentially Active Chemical Constituents

- Linoleic acid (LA)
- Gamma linolenic acid (GLA)

Like cod liver oil, EPO contains the essential fatty acid (EFA) linoleic acid. The World Health Organization recommends that 1% to 3% of adults' and 5% of children' total daily calories come from essential fatty acids (EFAs)[1]. Animal studies have linked EFA deficiencies with eczema-like skin lesions, hair loss, defects in connective tissue synthesis, poor immune function, and hepatic and renal lesions. Human milk contains high concentrations of GLA, di-homo-gamma linolenic acid (DGLA) and arachidonic acid (AA), which are thought to be critical in normal fetal and infant brain development[2]. The normal decline in EFA concentration in breastmilk over the first eight months of nursing can be prevented by EPO supplementation[3].

Commercial varieties of evening primrose seeds yield oil which contains approximately 9% *gamma linolenic acid* (GLA) and 72% *linoleic acid* (LA). Efforts are underway to achieve varieties with at least 20% GLA. A study evaluating the amount of GLA in 16 different commercial brands of evening primrose oil found that the actual amount agreed very closely with the labeled amount, and that all brands contained between 7% and 10% GLA[4]. A few products appeared to be contaminated with minute amounts of borage oil, another herbal source of GLA and LA.

Metabolism of Linoleic Acid

Linoleic Acid (LA)

⇓ *delta–6-desaturase*

Gamma Linolenic Acid (GLA)

⇓ *elongase*

Di-Homo Gamma Linolenic Acid (DGLA) ⇒ Series 1 prostaglandins (e.g., PG, E1)

⇓ *delta –5-desaturase*

Arachidonic Acid (AA)

⇓ *cyclooxyenase and lipoxygenase*

Prostaglandin E2, Thromboxane A2, Leukotrienes C4, D4, E4, B4 and others

Linoleic acid is an omega-6 fatty acid, one of the essential fatty acids. It serves as a precursor to gamma linolenic acid (GLA) and from there is metabolized to dihomo gamma linolenic acid (DGLA), arachidonic acid (AA), and finally a whole series of prostanoids. The rate-limiting step in this pathway is the conversion of LA to GLA via delta-6-desaturase. Mild to moderate inborn or acquired errors in the production or activity of delta–6-desaturase lead to higher than normal blood and tissue concentrations of LA and lower than normal levels of GLA, DGLA and the prostanoids that modulate immune and inflammatory reactions[5]. Decreased delta-6-desaturase activity is found in several conditions: normal aging, diabetes, high alcohol intake, viral infections, high fat diets, and certain vitamin deficiencies[1].

Women with normal levels of LA, but low GLA (indicating a reduced ability to convert LA to GLA) tend to have more symptoms of premenstrual syndrome (PMS), particularly breast pain[7]. Newborns with low serum levels of GLA or whose mother's milk contains low levels of GLA are more likely to develop eczema as they grow up; infants and children with newly developed eczema consumed lower levels of GLA than their unaffected peers[8,9].

Because evening primrose oil is a rich source of GLA which may bypass these metabolic blockades, it has been recommended as a remedy for problems ranging from eczema to cancer. The brands used in most of the experimental studies are Efamol or Epogram.

Following administration of several grams of EPO to healthy volunteers, serum GLA levels significantly increase, reaching a peak at two to four hours following administration[6].

Experimental Studies

Evening Primrose Oil: Potential Clinical Benefits

1. Cardiovascular: Diabetic peripheral neuropathy, hypertension, hypercholesterolemia
2. Pulmonary: Asthma
3. Renal and electrolyte balance: Nephropathies
4. Gastrointestinal/hepatic: Inflammatory bowel disease
5. Neuropsychiatric: none
6. Endocrine: Menopausal hot flashes. Also see Immune modulation: cyclic mastalgia.
7. Hematologic: none
8. Rheumatologic: Rheumatoid arthritis
9. Reproductive: none
10. Immune modulation: Anti-inflammatory for eczema, rheumatoid arthritis, cyclic mastalgia, asthma
11. Antimicrobial: none
12. Antineoplastic: none
13. Antioxidant: none
14. Skin and mucus membranes: See Immune modulation: eczema.
15. Other/miscellaneous: Chronic fatigue syndrome, multiple sclerosis

1. **Cardiovascular:** Diabetic peripheral neuropathy, hypertension, hypercholesterolemia: Impairments in microvascular circulation and free radical oxidative damage contribute to peripheral neuropathy in diabetes; by altering endothelial prostaglandins affecting inflammation (such as prostaglandin E2) and clotting (thromboxane B2), some investigators have hoped to mitigate these co-morbidities[10,11,12].
   a. Diabetic peripheral neuropathy
      i. *In vitro data:* none
      ii. *Animal data:* In one study of diabetic rats, EPO supplements significantly improved blood flow to nerves, improving both sensation and movement[13]. These results were

confirmed in several other studies treating diabetic rats who had ischemia-induced peripheral neuropathies[14,15,16,17,18,19,20].

Starting treatment with high-dose EPO (e.g. 10 grams/kg daily) at the onset of diabetes actually *prevented* the usual impairments in blood flow caused by diabetes in other rat studies[21,22,23,24].

iii. *Human data:* In a case series of seven adults with non-insulin dependent diabetes, EPO supplements (4 grams daily) in combination with fish oil and vitamin E for four weeks was associated with significantly improved fatty acid profiles and prostaglandin E concentrations and decreased thromboxane B2 excretion [5].

The impact on blood levels of fatty acids and prostaglandins was confirmed in a placebo-controlled study of 11 diabetic children who were given 1000 - 2000 mg EPO daily for eight months[26].

In a double-blind, placebo-controlled trial, those treated with GLA had a reversal in diabetic peripheral neuropathy when supplements were consumed for several months; their improvement was significantly better than nerve function observed in the placebo-treated group[27,28]. These results were strongly supported in a multi-center study of 111 diabetics with peripheral neuropathy treated with 450 milligrams daily of GLA for one year[29].

b. Hypertension: This is an area of experimental interest rather than active clinical use.

i. *In vitro data:* none

ii. *Animal data:* In hypertensive rats, the endothelial release of prostaglandin precursors such as DGLA and arachidonic acid is reduced compared with normotensive rats; supplementing the diets of hypertensive rats with GLA-rich oil normalized their endothelial fatty acid profiles and reduced vascular reactivity to norepinephrine and angiotensin[30,31]. Supplementing the diets of spontaneously hypertensive rats with GLA-rich oils such as EPO, borage and black currant oil reduced blood pressure without affecting response to vasopressors or calcium channel blockers[32,32]. In newborn rats predisposed to developing hypertension, dietary supplementation with GLA attenuated the risk of developing increased blood pressure[33].

iii. *Human data:* In a placebo-controlled clinical trial conducted in China, a combination of EPO and fish oil was compared to either oral magnesium supplements or placebo in treating 150 pregnant women at risk for developing pre-eclampsia; there was significantly less edema and hypertension among women in either active treatment group than among the placebo-treated patients[34].

c. Hypercholesterolemia: Lower than normal serum levels of GLA and DGLA have been found in adults who eventually developed heart disease and stroke.

i. *In vitro data:* none

ii. *Animal data:* GLA supplements have potent cholesterol-lowering effects in rats[35,36]. In guinea pigs, EPO lowered triglycerides and cholesterol and inhibited ADP-induced platelet aggregation[1]. In hyperlipidemic rabbits, six weeks of EPO supplementation significantly reduced hypercholesterolemia, increased HDL-cholesterol and diminished endothelial wall lesions[37]. In rabbits fed an atherogenic diet, EPO supplementation reduced platelet hyperaggregability to normal levels and reduced oxidative stress[38,39].

iii. *Human data:* In a placebo controlled trial, 79 patients who took 4 grams of EPO daily had a 31.5% decrease in serum cholesterol levels within three months of therapy[1].

2. **Pulmonary:** Asthma

i. *In vitro data:* none

ii. *Animal data:* none

iii. *Human data:* A randomized controlled trial of EPO supplements given for eight weeks to patients with allergic asthma found no significant improvement in symptoms or response to provocation tests, despite a marked change in fatty acid profiles[40].

3. **Renal and electrolyte balance:** Nephropathies

i. *In vitro data:* none

ii. *Animal data:* Giving cyclosporine to rats generally causes renal toxicity, characterized by decreased creatinine clearance, decreased excretion of prostaglandin E2, increased blood pressure and increased urinary excretion of thromboxane B2. When rats were pretreated with EPO supplements prior to cyclosporine administration, the nephrotoxic effects were markedly diminished[41,42,43]. Similar protective effects were observed in rat models of

adriamycin-induced nephrotic syndrome and diabetic nephropathy, presumably by altering lipid profiles and prostanoid ratios[44,45,46]. EPO supplements also conferred protective effects on partially nephrectomized rats in terms of residual renal function[47]. EPO and fish oils appeared to exert synergistic protective effects against these assaults and in preventing renal stone formation in rats[48,49,50].

iii. *Human data:* One placebo-controlled trial in 89 post-renal transplant patients showed better graft survival among those given EPO than those given placebo[1].

In a randomized controlled trial of 16 hemodialysis patients who suffered from pruritis and other dermatologic irritations, those assigned to EPO had significant improvement in serum DGLA levels and reduced itching; renal function was not measured[52]

4. **Gastrointestinal/hepatic:** Inflammatory bowel disease: Evening primrose oil has been used to reduce local intestinal inflammation. See also Immune modulation
   i. *In vitro data:* none
   ii. *Animal data:* none
   iii. *Human data:* In a study comparing EPO with fish oil or olive oil in adults with ulcerative colitis, the group receiving EPO had a significant improvement in stool consistency, but the groups were similar on all other outcomes[53].
5. **Neuropsychiatric:** none
6. **Endocrine:** Menopausal hot flashes. Also see Immune modulation: cyclic mastalgia.
   a. Cyclic mastalgia: Women with cyclic mastalgia sometimes have abnormal fatty acid metabolism. EPO seems to work, if it does, by its anti-inflammatory, rather than hormonal, effects. See Immune modulation.
   b. Menopausal hot flashes
      i. *In vitro data:* none
      ii. *Animal data:* none
      iii. *Human data:* EPO supplements have been recommended for menopausal women to help with symptoms such as hot flashes. The mechanism for these purported benefits is unexplained. In a study of 56 women experiencing at least three hot flashes daily,

EPO supplements (2 grams daily) were no more helpful than placebo capsules in reducing the number or severity of hot flashes[54].

7. **Hematologic:** none
8. **Rheumatologic:** See Immune modulation: rheumatoid arthritis.
9. **Reproductive:** none
10. **Immune modulation:** Anti-inflammatory for eczema, rheumatoid arthritis, cyclic mastalgia
    a. Eczema
        i. *In vitro data:* See Biochemistry section which explains rationale for using EPO to treat eczema (EPO as a precursor to endogenous anti-inflammatory prostanoids).
        ii. *Animal data:* In numerous double blind, placebo controlled, randomized controlled trials, EPO effectively treated dogs and cats with eczema and allergic skin rashes[55,56,57,58,59,60]. A majority (8/11) of dogs with steroid dependent eczematous rashes was able to maintain good dermal function with reduced steroid dosages within three months of EPO supplementation[61].
        iii. *Human data:* Some eczema patients have a biochemical defect preventing the conversion of LA to GLA (delta-6-saturase activity), leading to low levels of DGLA and the prostaglandin precursors required for normal immune function; treatment with EPO can normalize DGLA levels[62,63].

            An open trial of EPO supplementation (3 grams daily) in infants (mean age 11 months) with chronic atopic dermatitis reported gradual improvement over one month of therapy in terms of excoriations and lichenification as well as a decreased need for antihistamines[64].

            Two randomized, controlled clinical trials of EPO supplements failed to document these benefits in adult eczema patients[66]; in one of these studies, there was apparently a mix-up in the administration of EPO and placebo[66,67]. In a randomized, controlled trial of GLA-containing borage oil supplements (500 milligrams daily) given to adults with stable steroid-dependent eczema, there was no significant improvement in those receiving active therapy compared to the placebo control group[68]. In another randomized controlled trial evaluating eight weeks of GLA (600

mg/day) for chronic hand dermatitis, the active treatment group and placebo treated group had similarly improved outcomes[69].

However, several other controlled trials have reported modest but significant benefits effects of EPO and other oils rich in GLA (such as borage oil) as treatments for eczema[70,71,72,73,74,75]. A meta-analysis of studies evaluating EPO's effects on eczema concluded that overall, both doctors and patients rated improvements significantly better for EPO than for placebo, particularly for itching[76]. For example, a double-blind, controlled trial of EPO in children demonstrated that high doses of EPO (doses of 7.5 grams of EPO daily for eight weeks for 35-pound children were typical) significantly improved eczema symptoms[77].

On the other hand, in a controlled trial of 60 children with steroid-dependent eczema who were treated with EPO for 16 weeks, there was no statistically significant difference between the improvement of those given placebo and those given EPO (both improved over the course of the study)[78].

Effective eczema treatment requires high doses of EPO over a long period of time (at least four to six grams per day for an adult, every day for at least four to six weeks)[79]. Improvements in the skin parallel changes in the blood levels of essential fatty acids. Based on these studies and an increasing amount of clinical experience, increasing numbers of physicians routinely recommend EPO supplements for their eczema patients, not as a steroid replacement, but as a mild adjunctive therapy for patients interested in natural remedies.

b. Rheumatoid arthritis

i. *In vitro data:* GLA supplements reduced T-cell activation, thought to be an important mediator in rheumatic inflammation[80].

ii. *Animal data:* Rats given EPO supplements had significant decreases in serum levels of interferon gamma and monocyte chemotactic protein-1 compared with rats on control diets, suggesting that EPO supplementation may modulate immune function[81].

EPO effectively reduced experimentally induced adjuvant arthritis in rats[82]. EPO-rich diets suppressed the proliferation of splenic lymphocytes in rats, but had no effect on the proportion of T cells, B cells, monocytes or macrophages[83].

iii. *Human data:* Studies in arthritis patients have not had consistent results. Several case series and randomized trials concluded that EPO and other sources of GLA were not significantly more helpful than placebo[84,85]; although supplementation could alter serum and red blood cell fatty acid profiles, there was not necessarily a notable improvement in symptoms[86].

In a randomized trial of 40 rheumatoid arthritis patients who had developed upper gastrointestinal ulcers secondary to their use of non-steroidal anti-inflammatory drugs, those assigned to treatment with EPO (6 grams daily) were not significantly better than those assigned to placebo (olive oil) after six months of treatment; both groups improved, and the authors seemed uncertain whether to conclude that EPO was not worthwhile or that olive oil might offer some benefits as well[87].

On the other hand, several case series and randomized trials have reported significant benefits of GLA supplementation, often improving symptoms and allowing decreased doses of anti-inflammatory medications. For example, in a randomized, controlled trial of 49 rheumatoid arthritis patients, EPO proved significantly better than placebo in reducing symptoms and the need for non-steroidal inflammatory drugs (NSAID) such as aspirin and ibuprofen; withdrawing EPO treatment resulted in symptom rebounds[88]. In another randomized, controlled trial of 37 adults with rheumatoid arthritis, high-dose GLA (1.4 grams daily from borage oil) led to significant improvement in joint symptoms over 24 weeks[89]. In a randomized controlled trial of 56 patients with active rheumatoid arthritis, patients had a significant improvement in symptoms during the active treatment period with 2.8 gms daily of GLA (equivalent to about 30 grams daily of EPO), but frequently experienced a marked relapse in symptoms when treatment was stopped at the end of the study[90]. Similarly, among patients with Sjogren's arthritis, EPO or GLA supplementation was associated with a significant biochemical and clinical improvement[91].

If EPO supplementation does affect arthritis symptoms through its effects on arachidonic acid metabolism and prostaglandin synthesis, it appears that the effects are modest, that the EPO dose must be substantial (at least 1 gram daily of GLA), that several months of treatment are needed before benefits can be expected, and that EPO is not a substitute for standard arthritis therapies[92,93].

No studies have yet evaluated EPO's effects in treating rheumatoid arthritis in children.

c. Cyclic mastalgia: EPO is a popular supplement for women with symptoms of cyclic mastalgia associated with menstruation. Many British and Australian physicians recommend EPO supplements for these women; EPO, like vitamin B6, is often used as a first line treatment, helping 40% - 60% of women. Non-responders are then given more potent medical therapies such as danazol. This approach yields success rates over 70%[94,95,96,97,98].

   i. *In vitro data:* none

   ii. *Animal data:* none

   iii. *Human data:* Many women with premenstrual syndrome (PMS) have higher than normal blood levels of linoleic acid (LA) and lower than normal levels of gamma-linolenic acid (GLA), suggesting a metabolic block that might be bypassed by GLA supplements with EPO, black currant or borage oil[7,99,100,101]. Among women with moderate or severe PMS, the home therapies that were reportedly most effective were EPO, vitamin B6 and exercise[102].

One double-blind, randomized, controlled cross-over trial among 38 women seeking medical help for PMS found that there was a strong placebo response, and that EPO supplements were comparable to placebo and reassurance[103]. In a randomized, cross over trial of 73 patients with mastalgia treated with EPO for three months, there were significantly more drop-outs among those assigned to placebo, and significant improvements in pain and tenderness among those assigned to EPO[104].

In a randomized trial treating 200 women with benign cystic breast disease, EPO supplements (6 capsules daily for one year) were well tolerated, but no more

effective than placebo in preventing recurrences[105]. Other studies have found that EPO helped about half of the women with cyclic mastalgia, the same improvement as with bromocriptine; both EPO and bromocriptine were less effective than danazol, but EPO had fewer side effects and was better tolerated than danazol[106,107,108].

EPO is a safe and possibly mildly effective adjunctive treatment for about 45% of women suffering from mild, periodic breast pain. The studies evaluating it as an adjunctive therapy have been methodologically flawed and do not offer support for its general use in treating other pre-menopausal symptoms[109]. It has not been extensively evaluated as a remedy for premenstrual syndrome or mastalgia in adolescents.

11**. Antimicrobial:** none

12**. Antineoplastic:** none

13**. Antioxidant:** none

14**. Skin and mucus membranes:** Eczema: See Immune modulation

15**. Other/miscellaneous:** Chronic fatigue syndrome, multiple sclerosis

a. Chronic fatigue syndrome

i. *In vitro data:* none

ii. *Animal data:* none

iii. *Human data:* In one randomized trial, EPO supplements (4 grams daily) were significantly more helpful than placebo capsules for patients who developed CFS following a viral infection[110]. Up to 85% of the patients who took EPO reported an improvement in symptoms by the end of the three month study, compared with improvement in only 17% of placebo-treated patients[111]. These results are very encouraging and bear replicating, but this one study was not large enough nor long-lasting enough to suggest that CFS sufferers should routinely invest in long-term EPO therapy.

b. Multiple sclerosis

i. *In vitro data:* none

ii. *Animal data:* none

iii. *Human data:* Some MS patients have abnormally low concentrations of gamma linolenic acid (GLA) in their cell membranes[112,113]. EPO supplements can normalize membrane fatty acid profiles, but it may take up to two years to see changes in tissue concentrations[114]. There are no controlled trials evaluating the clinical effects of EPO supplementation on multiple sclerosis symptoms or on its use as a prophylactic agent for MS.

Toxicity and Contraindications

All herbal products carry the potential for contamination with other herbal products, pesticides, herbicides, heavy metals, and pharmaceuticals.

Allergic reactions can occur to any natural product in sensitive persons

Allergic reactions to evening primrose oil have not been reported.

Potentially toxic compounds in EPO: None

Acute toxicity: Huge doses (several grams) may cause diarrhea or headache, but in randomized trials, the incidence of such side effects was no greater in the active treatment group than among patients who received placebo vegetable oils.

Chronic toxicity: The only reported long-term side effects have been nausea, diarrhea and headache, which are seldom severe enough to discontinue treatment.

Limitations during other illnesses or in patients with specific organ dysfunction: Unknown; none reported. There were preliminary reports that EPO could unmask temporal lobe epilepsy in dogs and in schizophrenics taking phenothiazine medications, but this report has not been substantiated[115,116].

Interactions with other herbs or pharmaceuticals: Unknown; none reported.

Safety during pregnancy, lactation and/or childhood: Unknown; generally approved as safe in 30 countries. EPO is non-teratogenic in animal studies; GLA is normally present in breastmilk[51].

Typical dosages

Provision of dosage information dose NOT constitute a recommendation or endorsement, but rather indicates the range of doses commonly used.

Doses are given for single herb use and must be adjusted when using herbs in combinations.

Doses may also vary according to the type and severity of the condition treated and individual patient conditions.

Adult doses: There is disagreement on the optimal form and dose of evening primrose oil. Reputable physicians and herbalists recommend a range of doses:

For eczema: 4 – 8 grams daily, usually divided into 2 – 3 doses[51]

For cyclic mastalgia: 3 – 4 grams daily[51]

For rheumatoid arthritis: Doses as high as 10 – 30 grams of EPO daily have been used.

Pediatric doses:

For eczema: 2 –4 grams daily[51]

Availability of standardized preparations: Capsules generally contain 500 – 1000 milligrams of EPO, standardized to contain 8% GLA.

Dosages used in herbal combinations: Variable

Proprietary Names: Bioglan Primrose Micelle, Bionagrol, Cremol-P, EPOC, Efamast, Efamol, Efamol (FM), Epogam, Evening Gold, Eviprim (FM), Evoprim, Galanol GLX, Gamma Oil, Gammacur, Liprogam(FM), Naudicelle, Neobonsen, Primanol, Unigam, Unigamol

Multi-ingredient preparations containing evening primrose oil: Bioglan E-Plus, Bionagrol Plus, EPOC Marine, Efacal, Efalex, Efamarine, Efamol Marine Capsules (FM), Efamol PMP, Efamol PMS (FM), Efamol Plus Coenzyme Q10, Epopa, Exzem Oil, Galanol Gold, Gamma Marine, Lifesystem Herbal Plus Formula 9 Fatty Acids And Vitamin E, Maxepa & EPO, Medinat PMT-Eze, Naudicelle Marine, Naudicelle plus Epanoil (FM), PMS Support, Royal Galanol

See Also:

Evening Primrose Oil Clinician Information Summary:

http://www.mcp.edu/herbal/epo/epo.cis.pdf

Evening Primrose Oil Patient Fact Sheet:

http://www.mcp.edu/herbal/epo/epo.ph.pdf

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