NUTRITION IN PREGNANCY: DIETARY REQUIREMENTS AND SUPPLEMENTS

By Dr. Shaseb

Intruduction

- The intense fetal growth and development during pregnancy requires maternal physiologic adaptation and a change in nutritional needs.

- Adequate maternal intake of macronutrients and micronutrients promotes these processes, while undernutrition and overnutrition (eg, an obesogen environment) may be associated with adverse maternal, pregnancy, and newborn outcomes, including miscarriage, some congenital anomalies, hypertensive disorders of pregnancy, gestational diabetes, preterm birth, small for gestational age newborn, and suboptimal neurocognitive development

GENERAL DIETARY PRINCIPLES FOR OPTIMAL PREGNANCY OUTCOME

GENERAL DIETARY PRINCIPLES FOR

1. **Following a healthy dietary pattern**
   - Vegetables of all types, Fruits, Grains, Dairy, Protein foods, Oils
2. **Limiting consumption of added sugars, saturated fat, and sodium**
3. **Appropriate vitamin and mineral supplementation**
4. **Appropriate gestational weight gain**
5. **Avoiding alcohol and other known or potential harmful substances (eg, mercury)**
6. **Limiting caffeine intake** to less than 200 to 300 mg per day.
7. **Safe food handling**

MICRONUTRIENTS

Overview

- Requirements for most micronutrients increase during pregnancy. Requirements for several nutrients (calcium, magnesium, phosphorus, potassium, zinc, and vitamins A, C, and K) vary by maternal age.

- Ideally, all or most nutrients can be obtained by eating a diet consisting of nutrient-dense and fortified whole and unprocessed foods and beverages. However, some nutrients (eg, calcium, vitamin D, potassium, fiber, folate/folic acid, iron, iodine, choline) are consistently under-consumed in the United States population.

	Nonpregnant/ nonlactating females	Pregnant (age 14 to 18 years)	Pregnant (age 19 to 30 years)	Pregnant (age 31 to 50 years)	Upper limit
Minerals					
Calcium	1000 mg	1300 mg	1000 mg	1300 mg	2500 mg
Iron	18 mg	27 mg	27 mg	27 mg	45 mg
Magnesium	310 to 360 mg	400 mg	350 mg	360 mg	350* mg
Phosphorus	700 mg	1250 mg	700 mg	700 mg	4000 mg
Zinc	8 mg	12 mg	11 mg	11 mg	40 mg
Iodine	150 mcg	220 mcg	220 mcg	220 mcg	1110 mcg
Selenium	55 mcg	60 mcg	60 mcg	60 mcg	400 mcg
Vitamins					
Vitamin A	700 mcg RAE	750 mcg RAE	770 mcg RAE	770 mcg RAE	3000 mcg RAE
Vitamin D	600 international units	600 international units	600 international units	600 international units	4000 international units
Vitamin E	15 mg	15 mg	15 mg	15 mg	1000 mg
Vitamin K	90 mcg	75 mcg	90 mcg	90 mcg	ND
Vitamin C	75 mg	80 mg	85 mg	85 mg	2000 mg
Thiamin	1.1 mg	1.4 mg	1.4 mg	1.4 mg	ND
Riboflavin	1.1 mg	1.4 mg	1.4 mg	1.4 mg	ND
Niacin	14 mg	18 mg	18 mg	18 mg	35 mg
Vitamin B6	1.3 mg	1.9 mg	1.9 mg	1.9 mg	100 mg
Vitamin B12	2.4 mcg	2.6 mcg	2.6 mcg	2.6 mcg	ND
Choline	425 mg	450 mg	450 mg	450 mg	3500 mg
Folate	400 mcg DFE	600 mcg DFE	600 mcg DFE	600 mcg DFE	1000 mcg DFE

Candidates for MMNs

- Most trials of MMNs have been conducted in low-income countries and are not generalizable to high-income countries. Because of a lack of high-quality evidence of the efficacy of MMNs in well-nourished pregnant people, recommendations in high-income countries vary.

- In the absence of a careful evaluation by a nutritionist, we believe that it is prudent to recommend MMN supplement: Prenatal vitamins are the standard approach.

Recommended intake and source

- Prenatal vitamins and UNIMMAP account for the majority of MMN supplements taken by pregnant people. The content varies depending on the product used.

- At a minimum, the daily supplement should contain key vitamins/minerals that are often not met by diet alone, such as iron, calcium, folic acid, vitamin D, and iodine. In addition to these key vitamins/minerals, the supplement should contain adequate amounts of vitamins A, E, and C; B vitamins; and zinc.

IRON

Iron

- Iron is necessary for fetal brain and placental development and to expand the maternal red cell mass. Iron deficiency, which is the most prevalent single-nutrient deficiency worldwide and a major cause of anemia, is estimated to occur in 19 percent of pregnant people in the United States, ranging from 7 percent in the first trimester to 30 percent in the third trimester.

- Although systematic reviews have observed that routine iron supplementation in pregnancy consistently results in a reduction in the frequency of iron deficiency anemia at term, clear benefits for mothers or offspring have not been consistently demonstrated for a variety of other outcomes, even among pregnant people with iron deficiency anemia. However, available evidence is generally of low quality.

Recommended intake

- – The CDC recommend iron intake of **27 mg/day** during pregnancy (up from 18 mg/day in nonpregnant/non-lactating people) to prevent iron deficiency anemia

- The WHO recommends daily oral iron supplementation with 30 to 60 mg of elemental iron.
- For pregnant people with iron deficiency anemia (first- or third-trimester hemoglobin [Hb] <11 g/dL or second-trimester Hb <10.5 g/dL and low serum ferritin [<40 ng/mL]), an additional iron supplement (30 to 120 mg/day) is required until the anemia is corrected. One option is 65 mg of elemental iron (325 mg ferrous sulfate) every other day.
- For individuals who do not tolerate oral iron, iron can be administered safely and effectively intravenously.

Iron-rich foods

Food	Amount
Foods that provide 3 to 12 mg of iron	
Clams	4 large or 9 small
Oysters	6 medium
Octopus	3 oz cooked
Spinach	1/2 cup cooked
Lentils	1/2 cup cooked
Pumpkin seeds	1 oz roasted
Fortified cereals	1 cup
Foods that provide 1.6 to 3 mg of iron	
Sirloin steak	3 oz
Roast beef	3 oz
Lean hamburger	3 oz
Pork	3 oz
Lamb	3 oz
Salmon	3 oz
Tilapia	3 oz
Kidney beans	1/2 cup cooked
Lima beans	1/2 cup cooked
Navy beans	1/2 cup cooked
Oatmeal	1 cup cooked
Cashew nuts	1 oz dry roasted
Foods that provide 0.5 to 1.5 mg of iron	
Chicken	3 oz
Eggs	1 whole
Green peas	1/2 cup
Tomato juice	6 oz
Broccoli	1/2 cup
Brussels sprouts	1/2 cup cooked
Almonds	1 oz roasted
Peanuts	2 oz roasted
Dried apricots	5 halves
Raisins	1 oz (approximately 60 raisins)
Raspberries	1 cup
Strawberries	1 cup

Foods high in vitamin C that enhance iron absorption when consumed with iron-containing foods
Broccoli
Bell peppers
Cantaloupe
Grapefruit and grapefruit juice
Kiwi
Orange and orange juice
Tomatoes and tomato sauces
Strawberries

CALCIUM AND VITAMIN D

calcium and vitamin D

- Low calcium and vitamin D levels have been associated with adverse health outcomes in mother and child, but it is unclear whether low levels are the causal factor or a marker of poor maternal health.
- For pregnant people with low baseline dietary calcium intake (particularly in non-United States populations), high-dose calcium supplementation may reduce the risk of developing a **hypertensive disorder** of pregnancy.
- Calcium supplementation does not appear to reduce this risk in healthy, nulliparous pregnant people in whom baseline dietary calcium intake is adequate. Although there may be a benefit for preeclampsia prevention in high-risk populations, further study is required since available information is based upon small numbers of patients and heterogeneity in study populations.
- Calcium supplementation does not appear to reduce the risk of spontaneous preterm birth or low birth weight.

Recommended intake & Sources

- In the United States, the recommended daily allowance for calcium is 1000 to 1300 mg/day in pregnant and lactating individuals, depending on age.

- Calcium content of selected foods can be found online from the USDA National Nutrient Database.

Vitamin D

- In addition to its role in calcium and bone homeostasis, vitamin D potentially regulates many other cellular functions. Poor vitamin D status in the perinatal period may have short- or long-term consequences on bone, the immune system, and general health, but the precise threshold for optimal vitamin D status during pregnancy and the effects of highdose supplementation (4000 to 5000 international units daily) on pregnancy outcomes are not well defined

Recommended intake

- The Dietary Guidelines for Americans recommend daily intake of **600 international units per day** during pregnancy.

- Most prenatal vitamins contain 400 international units of vitamin D, but some preparations contain as little as 200 or as much as 1000 to 1200 international units. The safe upper limit of vitamin D has not been well studied but was conservatively set at 4000 international units in a 2011 guideline

Sources

- – Supplements often specify the type of vitamin D they contain. Most prescription prenatal vitamins contain cholecalciferol (D3), but some contain ergocalciferol (D2), and some contain a mixture. Many commercial nonprescription products labeled "vitamin D“ (multivitamin supplements, fortified milk, and bread) contain D2 rather than D3. D3 is more readily converted to active forms of vitamin D and is more effective at increasing serum 25 hydroxyvitamin D.

FOLATE/FOLIC ACID

Folate/folic acid

- The body of evidence supports the efficacy of folic acid supplementation and dietary fortification to decrease the occurrence and recurrence of neural tube defects (NTDs) by at least 70 percent.
- Folic acid supplementation, usually as part of a multivitamin, has also been associated with a variety of other benefits, including a reduction in risk of hypertensive disorders during pregnancy and occurrence of congenital anomalies other than NTDs.

Recommended intake

- – The Dietary Guidelines for Americans recommends 0.6 mg/day of folate for pregnant people.
- For pregnant people at high risk (history of NTD, diabetes, and anticonvulsant medication use), folic acid recommendations are higher (4 mg/day).

- While intake of folate from foods on average meets the recommended daily intake, food folate intake is inadequate in at least 36 percent of pregnant individuals, which supports **routine supplementation** of all females of reproductive age.

CHOLINE

Choline

- Choline is a component of acetylcholine, sphingomyelin, and phosphatidylcholine, thus it is important in the development of the fetal central nervous system and cognition.
- In the United States, pregnant people should consume 450 mg/day of choline from food and supplemental sources.

- Most prenatal supplements contain between 0 and 50 mg of choline, which is substantially less than the recommended daily amount. Thus, the daily requirement is best met by consumption of good choline sources, such as eggs, meats, poultry, seafood, and dairy. Plant sources, such as navy beans, Brussels sprouts, broccoli, and spinach contain lower amounts of choline; therefore, vegetarians and vegans should seek out supplemental sources of choline.

Zinc

- Zinc has a role in many biological functions, including normal fetal growth and neuronal development.

- In the United States, the recommended daily allowance for zinc is 11 to 12 mg/day during pregnancy.

- Food sources of zinc include meat, poultry, and certain types of seafood (oysters, crab, lobster). Whole grains, cereals, and legumes are also good sources of zinc, but bioavailability is lower due to phytates that bind to and decrease its absorption

IODINE

Iodine

- Iodine is an essential mineral necessary for production of thyroid hormones.
- Deficiency has potentially harmful effects, such as maternal and fetal/neonatal hypothyroidism.
- The National Academy of Medicine recommends daily iodine intake of 220 mcg during pregnancy and 290 mcg during lactation; the WHO recommends daily iodine intake of 250 mcg for both pregnant and lactating people.
- The American Thyroid Association recommends that individuals who are planning pregnancy, are pregnant, or are lactating supplement their diet with a daily oral multivitamin supplement that contains 150 mcg of iodine in the form of potassium iodide.

Sources

- – Many prenatal vitamins contain no iodine since requirements are often met with dietary sources, such as iodized salt. In the United States, data suggest that 23 to 56 percent of pregnant people have intake below recommended levels based on urinary iodine concentrations . Similar findings have been reported in the United Kingdom and in Sweden.

- Declining intakes of iodine may be related to increased intake of non-iodized salt from processed foods and in the home (such as sea salt, which contains less iodine than iodized salt). Although pregnant individuals should not be encouraged to start using table salt if they do not already do so, pregnant people should be encouraged to use iodized salt (contains 95 mcg iodine per onequarter teaspoon) rather than non-iodized, and/or consume cooked seafood that is naturally rich in iodine to attain adequate intake.

VITAMIN B12

Vitamin B12

- Vitamin B12 functions closely with folate and homocysteine and is involved in DNA synthesis and cellular metabolism.
- In the United States, the recommended daily allowance for vitamin B12 is 2.6 mcg/day in pregnancy and 2.8 mcg/day during lactation.
- The majority of pregnant people in the United States meet vitamin B12 requirements, with mean intake from foods of 5.6 mcg/day (more than two times RDA).
- **Sources** – Only animal source foods, such as fish, meat, poultry, eggs, and dairy products, contain vitamin B12; thus, individuals who consume a vegetarian or vegan diet are at higher risk of B12 deficiency and should take a supplement.

VITAMIN A

Vitamin A

- Vitamin A is important in cell division, fetal organ and skeletal growth, maintenance of the immune system, fetal visual development, and maintenance of maternal vision. However, supplementation in nondeficient subjects has not been shown to improve pregnancy outcomes and may increase risk of toxicity.

- Vitamin A utilization increases slightly during pregnancy; thus, recommended intake is increased to **750 to 770 mcg retinol equivalents** (2500 to 2560 international units) per day in pregnancy (versus 700 mcg retinol equivalents [approximately 2330 international units] per day in nonpregnant females)

Sources

- Vitamin A is found in moderate amounts (300 to 770 mcg retinol equivalents) in many prenatal vitamins, often in the form of beta-carotene (provitamin A).

- Vitamin A is present in a variety of foods, and requirements can be met by consuming foods such as milk, fish, eggs, carrots, leafy greens, broccoli, cantaloupe, and squash. Some groups recommend avoiding **liver** because of its high vitamin A content.

SUPPLEMENTS AND DIETARY INTAKE THAT CAN BE HARMFUL

Preformed vitamin A in supplements

- Consumption of vitamin supplements containing high doses of preformed vitamin A (greater than 10,000 international units per day [1 international unit = 0.3 retinol equivalents]) appears to be teratogenic.
- In the absence of severe deficiency, pregnant people should avoid consuming multivitamin or prenatal supplements that contain more than 5000 international units (1500 mcg retinol equivalents) of vitamin A.
- Most supplements contain beta-carotene rather than retinol; high beta-carotene intakes have not been associated with an increased risk for congenital anomalies.

Vitamin A in liver

- Some foods are fortified with vitamin A and others are rich in vitamin A (eg, liver). For this reason, some groups (eg, Finnish Food Safety Authority Evira, National Health Service) recommend avoiding liver consumption during pregnancy.

Iodine in nutritional supplements and seaweed

- Excessive intake of iodine can cause **fetal goiter**, but the safe upper limit of iodine intake in pregnancy is unclear. Congenital hypothyroidism has been reported in offspring of pregnant people ingesting 2.3 to 12.5 mg iodine daily (greater than 10 times the recommended dietary allowances [RDA] of 220 mcg, and greater than two times the upper limit of 1100 mcg) .
-
- The cases from the United States were related to excess iodine ingestion from nutritional supplements, and those from Japan were related to diets containing large quantities of kombu, other seaweeds, and instant kombu soups. Nevertheless, excessive iodine intake in the United States is uncommon (<1 percent).

Processed trans fatty acids

- Processed trans fatty acids (TFAs) should be minimized or preferably avoided.
- They may have adverse effects on fetal growth and development by interfering with essential fatty acid metabolism, by direct effects on membrane structures or metabolism, or by replacing maternal intake of the cis essential fatty acids.

SUPPLEMENTS WITH NO OR UNCERTAIN PREGNANCY BENEFITS

- Vitamin E
- Vitamin C
- Vitamin B6
- Probiotics

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From the 13 th week of pregnancy

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60 tablets and 60 capsules

+ Pregnant women have increased nutritional requirements as they also need to supply their unborn baby during this period. Women should take particular care to ensure that their folate supply is adequate during pregnancy.
+ Folate contributes to placental growth during pregnancy.
+ Femibion is a food supplement offering a special combination of two sources of folate: folic acid and Metafolin™.
+ During the second half of pregnancy, a polyunsaturated omega-3 fatty acid, is especially important. Maternal intake of DHA contribute of the normal development of the brain and the eyes of the fetus and the breastfed infant. Therefore, in addition to recommended daily intake of 250 mg of omega-3 fatty acids recommended for adults, an additional 200 mg DHA should be added.
+ Femibion contains nine other valuable vitamins and iodine.
+ Femibion capsules contain fish gelatin and do not contain beef or pork gelatin.

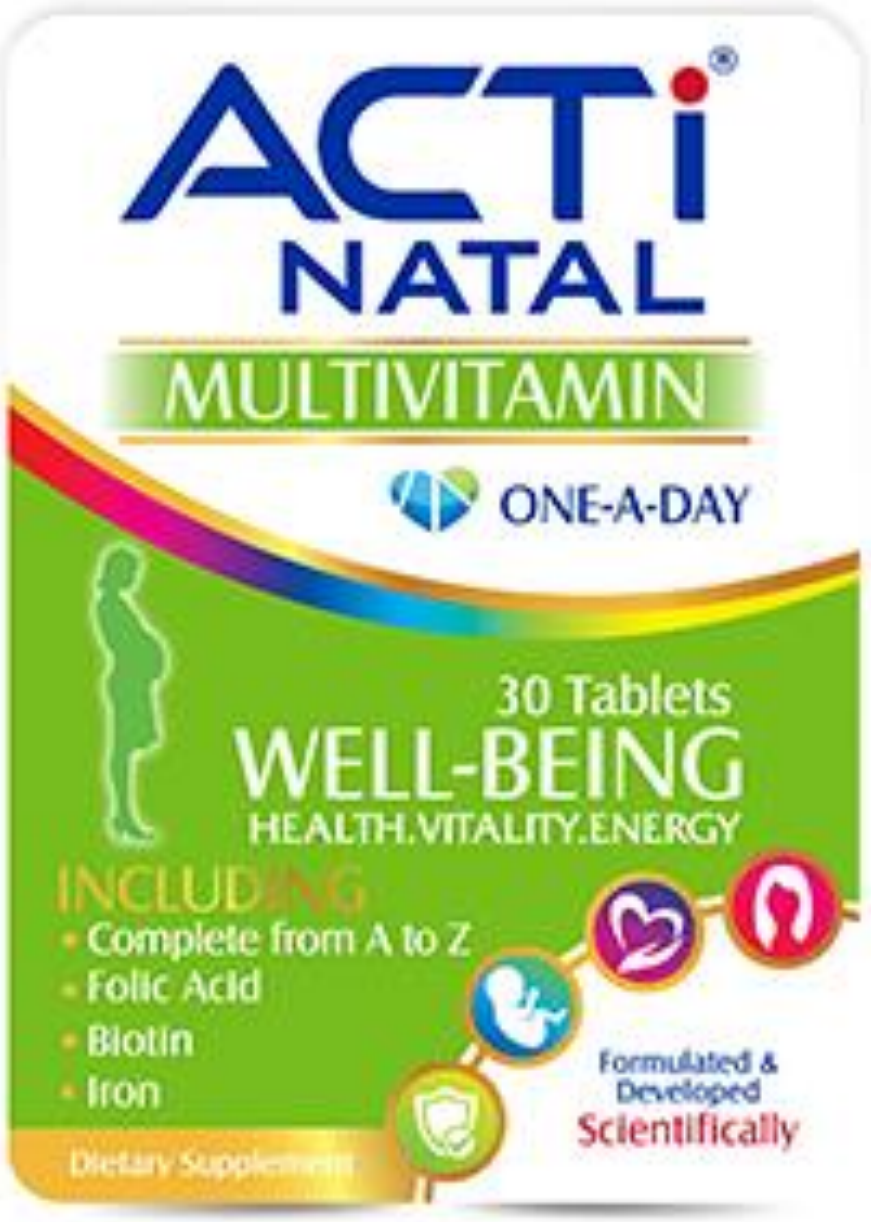
Recommended intake:

Take one tablet and one capsule per day with a main meal and with a cold drink. Do not exceed the recommended daily intake. Keep out of reach of young children. Keep in a dry place and do not store above 25 °C. Food supplements are not a replacement for a balanced and varied diet and healthy lifestyle.

Nutrients per tablet		
Folate	400	µg
• Folic acid	200	µg
• L-methylfolate	208	µg*
(*equivalent to 200 µg folic acid)		
Vitamin B1	1.2	mg
Vitamin B2	1.6	mg
Vitamin B6	1.9	mg
Vitamin B12	3.5	µg
Biotin	60	µg
Niacin (NE)	15	mg

Nutrients per tablet		
Pantothenic acid	6	mg
Vitamin E (α-TE)	13	mg
Vitamin C	110	mg
Iodine	150	µg

Nutrients per capsule		
Docosahexaenoic acid (DHA)	200	mg
Vitamin E (α-TE)	12	mg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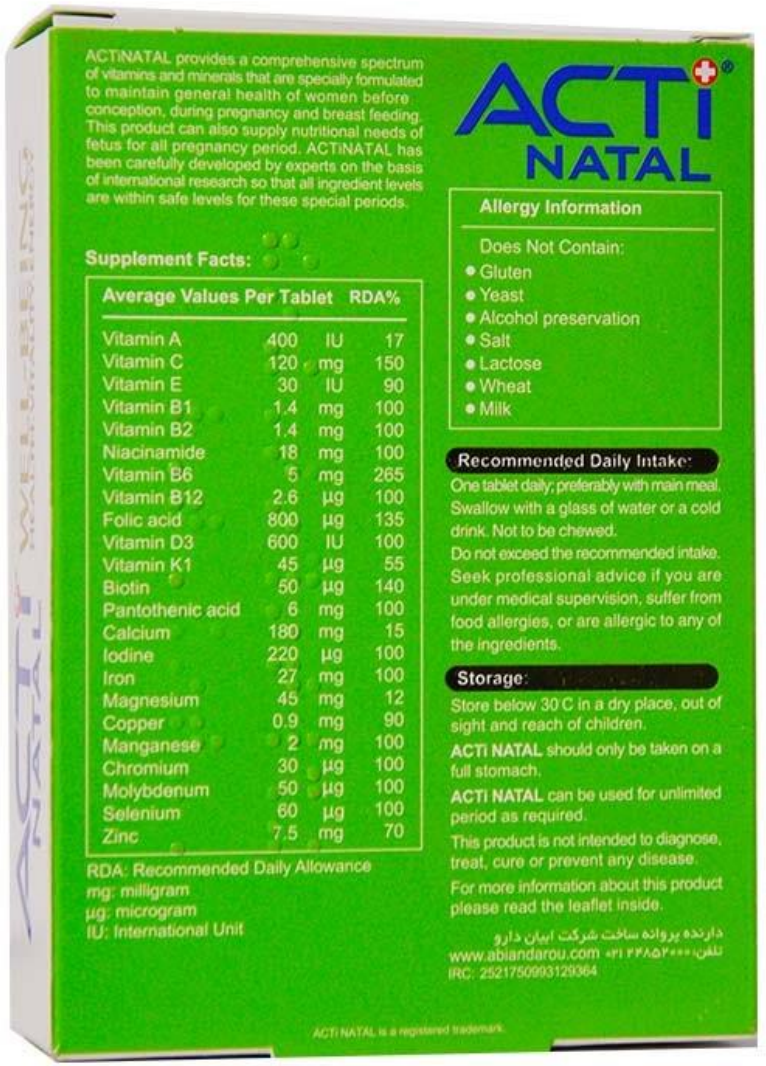
ACTiNATAL provides a comprehensive spectrum of vitamins and minerals that are specially formulated to maintain general health of women before conception, during pregnancy and breast feeding. This product can also supply nutritional needs of fetus for all pregnancy period. ACTiNATAL has been carefully developed by experts on the basis of international research so that all ingredient levels are within safe levels for these special periods.
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Supplement Facts:
Average Values Per Tablet RDA%
Vitamin A 400 IU 17
Vitamin C 120 mg 150
Vitamin E 30 IU 90
Vitamin B1 1.4 mg 100
Vitamin B2 1.4 mg 100
Niacinamide 18 mg 100
Vitamin B6 5 mg 265
Vitamin B12 2.6 µg 100
Folic acid 800 µg 135
Vitamin D3 600 IU 100
Vitamin K1 45 µg 55
Biotin 50 µg 140
Pantothenic acid 6 mg 100
Calcium 180 mg 15
Iodine 220 µg 100
Iron 27 mg 100
Magnesium 45 mg 12
Copper 0.9 mg 90
Manganese 2 mg 100
Chromium 30 µg 100
Molybdenum 50 µg 100
Selenium 60 µg 100
Zinc 7.5 mg 70
RDA: Recommended Daily Allowance
mg: milligram
µg: microgram
IU: International Unit
Allergy Information
Does Not Contain:
• Gluten
• Yeast
• Alcohol preservation
• Salt
• Lactose
• Wheat
• Milk
Recommended Daily Intake:
One tablet daily; preferably with main meal. Swallow with a glass of water or a cold drink. Not to be chewed.
Do not exceed the recommended intake.
Seek professional advice if you are under medical supervision, suffer from food allergies, or are allergic to any of the ingredients.
Storage:
Store below 30 C in a dry place, out of sight and reach of children.
ACTi NATAL should only be taken on a full stomach.
ACTi NATAL can be used for unlimited period as required.
This product is not intended to diagnose, treat, cure or prevent any disease.
For more information about this product please read the leaflet inside.
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Recommended Daily Intake
One tablet daily with a main meal. Do not exceed recommended daily intake unless advised by a suitably qualified person. Pregnazon should only be taken on a full stomach.

Each Tablet Contains (Average): %NRV

Vitamin D (400 iu)	10µg	200	Vitamin K	75µg	100
Vitamin E (37 iu)	25mg	208	Iron †	20mg	143
Vitamin C	75mg	94	Magnesium	100mg	27
Thiamin (vitamin B1)	4mg	364	Zinc	15mg	150
Riboflavin (vitamin B2)	3mg	214	Iodine	150µg	100
Niacin (nicotinamide)	20mg	125	Copper	1mg	100
Vitamin B6	10mg	714	Selenium	35µg	64
Folic Acid	400µg	200	Rutin	10mg	*
Vitamin B12	6µg	240	Inositol	25mg	*
Biotin	150µg	300	Choline	10mg	*
Pantothenic Acid	6mg	100			

NRV: EC Nutrient Reference Value *: EC NRV Not Yet Established

FREE FROM YEAST, GLUTEN, WHEAT, SOYA, DAIRY & SALT
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FISH CONSUMPTION AND MARINE OMEGA-3 FATTY ACID SUPPLEMENTATION IN PREGNANCY

Intruduction

- The two major categories of polyunsaturated fatty acids (PUFAs) are the omega-3 (also called n-3) and omega-6 (n-6) fatty acids. The three major dietary omega-3s are eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and alpha-linolenic acid (ALA). EPA and DHA are longchain omega-3 PUFAs present in fish, shellfish, and (in much lower amounts) some other animal foods. They are the major components of omega-3-acid ethyl esters (fish oil) supplements. Marine omega-3 fatty acids have a variety of biologic effects, including specific effects related to pregnancy.

- Fish, including finfish and shellfish, is a healthful food that is low in saturated fat, high in protein, and is the primary dietary source of DHA and EPA.
- Women who may become pregnant, are currently pregnant, or are breastfeeding are generally advised to consume **two or three weekly** servings of a variety of the types of fish high in marine omega-3 fatty acids and low in mercury. This means not eating shark, swordfish, king mackerel, marlin, orange roughy, bigeye tuna, or tilefish because they can contain relatively high levels of mercury, which can cause **neurotoxicity**.

- We suggest that pregnant women consume fish or, if this is not possible, consume a supplement or fortified food source of marine omega-3 fatty acids to achieve an intake of at least 200 to 300 mg/day DHA (Grade 2B).
- This level of fish intake/supplementation should probably be started as early as possible in pregnancy or preconception. Oily fish contain more DHA than non-oily fish

The effects

- This recommendation is based on evidence from some randomized trials showing a lower risk for preterm birth, a lower risk of persistent wheeze or asthma in offspring, and no evidence of harm associated with marine omega-3 fatty acids as supplements or as dietary additions.
- It also acknowledges the observation that DHA is preferentially incorporated into the rapidly developing brain and retina during the last trimester and plays a role in various physiologic processes, although there is no clear evidence that marine omega-3 fatty acid supplements during pregnancy improve offspring neurodevelopment

DIETARY SUPPLEMENTS: FISH OIL AS A UNPROVEN TREATMENT FOR MALE INFERTILITY

Fish oil

- In addition to adopting healthy lifestyle practices, some men with infertility use fish oil supplements as a treatment strategy. Based upon available evidence, we do not suggest using fish oil as a therapy for male infertility. Placebo-controlled studies of infertile men with fish oil supplements (which contain the omega-3 fatty acids docosahexaenoic acid [DHA] and eicosapentaenoic acid [EPA] have demonstrated inconsistent results on sperm parameters in infertile men

Fish oil

- Additional data come from a cross-sectional study of healthy, young men presenting for a fitness examination for potential military service Those who reported fish oil supplement use in the 60 days prior to the examination had slightly higher average testicular volume and semen volume] and compared with those who did not use any fish oil supplements.
- Men taking fish oil supplements tended to have slightly higher average total sperm counts. However, these differences in testicular volume, seminal fluid volume, and total sperm counts were small and minimal clinical significance; average testicular volume, seminal fluid volume, and sperm counts were well within the normal range in men who did not report taking fish oil supplements.
- Finally, the men who took fish oil supplements self-reported higher levels of health and fewer febrile episodes; it cannot be determined whether fish oil supplements are causally related to these improvements or due to some other confounding factor in this study.

FertilAid for men

Supplement Facts

Serving Size: 3 capsules
Servings Per Container: 30

	Amount Per Serving	% Daily Value
Vitamin A (as beta carotene)	1500mcg	167%
Vitamin C (as ascorbic acid)	250mg	278%
Vitamin D (as cholecalciferol)	10mcg	50%
Vitamin E (as d-alpha tocopheryl succinate)	100.5mg	670%
Vitamin K (as phytonadione)	80mcg	67%
Thiamin (as thiamine HCl)	1.5mg	125%
Riboflavin	1.7mg	131%
Niacin	20mg	125%
Vitamin B6 (as pyridoxal 5-phosphate)	2mg	118%
Folate (as L-5-methyltetrahydrofolate, calcium)	850mcg DFE	213%
Vitamin B12 (as methylcobalamin)	25mcg	1042%
Pantothenic Acid (as d-calcium pantothenate)	10mg	200%
Iodine (from kelp)	150mcg	100%
Magnesium (as magnesium oxide)	120mg	29%
Zinc (as zinc gluconate)	30mg	273%
Selenium (as l-selenomethionine)	100mcg	182%
Copper (as copper gluconate)	2mg	222%
Manganese (as manganese sulfate)	2mg	87%
Chromium (as chromium picolinate)	120mcg	343%
Proprietary Blend L-Carnitine (as L-carnitine L-tartrate), Maca (root), Grape Seed Extract, Asian Ginseng extract (root), CoQ10	890mg	**

** Daily Value not established

OTHER INGREDIENTS:
Vegetable capsule (hypromellose), Rice Flour, Silicon Dioxide, Magnesium Stearate

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COMPOSITION PER DAILY DOSE (2 SACHETS): %RDA*
L-Carnitine 1500 mg -
Vitamin C (Ascorbic acid) 60 mg 75%
Coenzyme Q10 20 mg -
Vitamin E (Tocopherol) 10 mg 83%
Zinc 10 mg 100%
Vitamin B9 (Folic acid) 200 mcg 100%
Selenium 50 mcg 91%
Vitamin B12 (Cyanocobalamin) 1 mcg 40%
*%RDA Recommended daily allowances established by EU - Official RDA not established
NUTRITIONAL INFORMATION PER DAILY DOSE PER 100 GR
Calories 20,0 kcal / 85,6 kj 263,5 kcal / 1125,9 kj
Protains (Nx 6.25) 0 g 0 g
Carbohydrates 3,6 g 47,38 g
Fat 0 g 0 g
مکمل آندروفرتی
۶۰ ساشه در هر بسته
کمک به تامین ویتامین ها و مواد معدنی مورد نیاز جهت افزایش تعداد و کیفیت اسپرم
میزان مصرف :
۲ ساشه در هر روز (صبح و عصر)
هر ساشه در نصف لیوان آب حل شود.
فرآورده را درجای خشک و خنک و در دمای کمتر ۳۵ درجه سانتی گراد نگهداری نمایید.
این فرآورده را دور از دید و دسترس کودکان نگه دارید.
فرآورده مکمل است و جهت تشخیص، پیشگیری و یا درمان بیماری نمی باشد.
صاحب پروانه : شرکت دارو درمان پارمیدا، تهران، ایران
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جزیره کیش، ایران
KMP
دستور پزشک :

TREATMENT OF LEUKOSPERMIA IN MAILE INFERTILITY

vitamin E

- We recommend against antibiotic treatment for leukospermia. We also recommend against treatment with nonsteroidal anti inflammatory drugs (NSAIDs) because there are insufficient data that they improve male fertility and there are potential adverse effects (including peptic ulcer diseases and renal injury).

- Similarly, because inflammation is associated with increased reactive oxidative species, some experts recommend NSAIDs, mast cell blockers, or antioxidants (eg, vitamin E) to improve sperm quality for men with asymptomatic leukospermia. Short-term vitamin E therapy has also been tried, but its efficacy is unproven.

PRENATAL SUPPLEMENTATION

- all women planning pregnancy or capable of becoming pregnant should be counseled to take supplemental folic acid to reduce the risk of having an infant with a neural tube defect, and possibly other congenital anomalies and abruption. The neural tube closes between 24 and 26 days after conception so folic acid supplementation after the diagnosis of pregnancy is usually too late to reduce the risk of neural tube defects. The most convenient method of folic acid supplementation is daily intake of a multivitamin containing **400 to 800 mcg of folic acid**.

- Megavitamins, nonessential dietary supplements, and herbal preparations should be discontinued, given that the risk to the fetus from such substances has generally not been evaluated. Megadoses of vitamin A taken during early pregnancy have been associated with birth defects.
- Multivitamin preparations containing more than 5000 international units of vitamin A should be avoided (increased risk of teratogenesis at >10,000 international units/day).

- Many prenatal vitamins contain no iodine. Women planning pregnancy have been advised to 1supplement their diet with a daily oral multivitamin supplement that contains 150 to 250 mcg of iodine in the form of potassium iodide, although there is insufficient evidence of the benefits and harms of routine iodine supplementation. Using iodized salt (contains 95 mcg iodine per onequarter teaspoon) and consuming seafood that is naturally rich in iodine are alternatives.

Fish

- The quantity and type of fish consumed should also be regulated and certain types of fish should be avoided during pregnancy and the preconception period due to concerns about possible teratogenic effects from environmental toxins, particularly mercury. Only cooked fish should be eaten.
- There is no clear evidence that n-3 (also known as omega-3) long chain polyunsaturated fatty acids (docosahexaenoic acid [DHA] and eicosapentaenoic acid [EPA]) supplements during pregnancy improve offspring neurodevelopment or other outcomes.

Supplement Facts

Serving Size 1 Softgel

Amount Per Softgel	% Daily Value for Pregnant Women and Lactating Women
Calories 5	
Vitamin A (as Beta Carotene) 770 mcg	59%
Vitamin C (as Ascorbic Acid) 85 mg	71%
Vitamin D_3 (as Cholecalciferol) 25 mcg (1000 IU)	167%
Vitamin E (as d-Alpha Tocopherol) 15 mg	79%
Vitamin K (as Phytonadione) 90 mcg	100%
Thiamin (as Thiamine Mononitrate) 1.4 mg	100%
Riboflavin 1.4 mg	88%
Niacin (as Niacinamide) 18 mg	100%
Vitamin B_6 (as Pyridoxine Hydrochloride) 1.9 mg	95%
Folate 1330 mcg DFE (800 mcg Folic Acid)	222%
Vitamin B_{12} (as Cyanocobalamin) 5.2 mcg	186%
Biotin 30 mcg	86%
Pantothenic Acid (as d-Calcium Pantothenate) 6 mg	86%
Calcium (as Calcium Carbonate) 150 mg	12%
Iron (as Ferrous Fumarate) 27 mg	100%
Iodine (as Potassium Iodide) 150 mcg	52%
Magnesium (as Magnesium Oxide) 45 mg	11%
Zinc (as Zinc Oxide) 11 mg	85%
Omega-3 Fatty Acids (from Fish Oil Concentrate)†† 260 mg	*
Omega-3 Docosahexaenoic Acid (DHA)†† 200 mg	*
Omega-3 Eicosapentaenoic Acid (EPA)†† 60 mg	*

*Daily Value not established.

SUGGESTED USE:
Adults, take 1 softgel daily with water and a meal for optimal absorption.

Store tightly closed, in a cool, dry place, out of reach of children.
Do not use if imprinted seal under cap is broken or missing.

CAUTION:
If you are taking medication or have blood clotting issues, consult your physician before use.

✓ **No Artificial Flavors**
✓ **Gluten Free**

WARNING: Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. Keep this product out of reach of children. In case of accidental overdose, call a doctor or poison control center immediately.

OTHER INGREDIENTS:
Gelatin, Glycerin, Rapeseed Lecithin, Soybean Oil, Water, Dibasic Calcium Phosphate, Yellow Beeswax, Tocopherols, Resin, Ascorbyl Palmitate.

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Nature Made Nutritional Products
West Hills, CA 91309-9903, USA
1-800-276-2878
www.NatureMade.com

USP has tested and verified ingredients, potency and manufacturing process.
USP sets official standards for dietary supplements.
www.uspverified.org

†† As ethyl esters

Lot:
Exp.:

Supplement Facts

Serving Size: 3 capsules
Servings Per Container: 30

Amount Per Serving	% Daily Value
Vitamin A (as beta carotene) 4000 IU	80%
Vitamin C (as ascorbic acid) 85 mg	142%
Vitamin D3 (as cholecalciferol) 400 IU	100%
Vitamin E (as d-alpha tocopheryl succinate) 100 IU	333%
Thiamin (as thiamine HCl) 1.5 mg	100%
Riboflavin 1.7 mg	100%
Niacin 20 mg	100%
Vitamin B6 (as pyridoxal 5-phosphate) 2 mg	100%
Folic Acid 600 mcg	150%
Vitamin B12 (as methylcobalamin) 6 mcg	100%
Pantothenic Acid (as d-calcium pantothenate) 10 mg	100%
Iron (as amino acid chelate) 18 mg	100%
Iodine (as kelp) 150 mcg	100%
Magnesium (as magnesium oxide) 320 mg	80%
Zinc (as zinc gluconate) 15 mg	100%
Selenium (as selenomethionine) 70 mcg	100%
Copper (as copper gluconate) 2 mg	100%
Proprietary Blend 620 mg	**

Red Clover *Trifolium pratense* (blossom) Extract, PABA (para-aminobenzoic acid), *Eleutherococcus senticosus* (root) Extract, Chaste Tree Berry *Vitex agnus-castus* Extract (4:1), *Ginkgo biloba* (leaf) Extract.

** Daily Value not established

Other ingredients: Microcrystalline cellulose, vegetable capsule (hydroxypropyl methylcellulose, water), magnesium stearate, silicon dioxide.


OvaBoost
for women
Dietary Supplement
Designed to:
Support egg quality & ovarian function*
Promote a healthy ovulatory cycle*
FAIRHAVEN HEALTH


Recommended Use: As a dietary supplement, take 4 capsules daily in divided doses. Discontinue use once pregnancy has been confirmed by u or blood test.
Supplement Facts
Serving Size: 4 capsules
Servings Per Container: 30
Amount Per Serving % Daily Value
Vitamin E (as d-alpha tocopherol, plus d-beta, d-gamma, and d-delta tocopherols) 100IU 333%
Folic Acid 200 mcg 50%
Proprietary Blend containing: Myo-inositol, Alpha Lipoic Acid, Grapeseed Extract (90% polyphenols), Coenzyme Q10, Melatonin. 2242mg**
**Daily Value not established
Other Ingredients: Cellulose, Rice Flour, Microcrystalline Cellulose, and Magnesium Stearate (vegetable source).
Caution: Keep out of reach of children. For adults only. If you have a pre-existing medical condition, or are taking antidepressant medication, please consult a doctor before use. If tamper seal is broken or missing, do not use.
No wheat, gluten, yeast, dairy, animal products, artificial colors, or artificial preservatives.
Arizona Nutritional Supplement
Fairhaven Health, LLC


thank
you