

Food for special medical purposes for the dietary management of the polycystic ovarian syndrome in women planning for pregnancy

Micronutrient combination with inositol, N-acetyl-L-cysteine, chromium and highly dosed folic acid. For coverage of the increased demand for inositol, omega-3 fatty acids, vitamins and minerals.

When planning for pregnancy, every woman is recommended to be increasingly aware of a healthy lifestyle with a well-balanced and varied diet rich in minerals and vitamins. For optimal supply, supplementing important micronutrients can be a good option. Women with polycystic ovary syndrome (PCOS) should be aware of their specific nutritional needs.

Fertilovit® FPCOS is a food for special medical purposes that has been tailored to meet the specific needs of women with PCOS planning for pregnancy. As a consequence of elevated levels of male hormones, they often suffer from disorders of oocyte maturation associated with irregular or lacking menstrual bleeding. Insulin resistance occurs frequently as well. This leads to a specifically increased demand for vitamins, minerals and other substances. Inositol, N-acetyl-L-cysteine, DHA and EPA in combination with highly dosed folic acid and other nutrients cover this demand, thus supporting women with PCOS planning for pregnancy.

Blood sugar, insulin and PCOS

When it comes to nutrition, the major aim in PCOS patients is maintenance of balanced blood sugar levels.

When we consume carbohydrates, they get into our blood as sugars. However, the majority of cells in the body are not able to take up and utilize these sugars without a specific signal: they need the blood sugar hormone insulin. After a meal rich in carbohydrates, the pancreas excretes insulin. The hormone then binds to specific receptors on the surfaces of its target cells, resulting in intracellular release of second messengers, so-called inositols. These induce complex mechanisms within the cells, which finally prompt the cell to internalize and metabolize sugar from the blood. In the ovaries and the adrenal cortex, insulin has another, additional effect: it induces androgen production. This of course explains the close association of blood sugar, insulin and PCOS.

By the end of the 20th century, researchers found first evidence showing that in PCOS, signal transduction at the insulin receptor is frequently impaired, which is what doctors refer to as "insulin resistance". In order to compensate for this, the body produces excess insulin (compensatory hyperinsulinemia), simultaneously stimulating increased production of male hormones (hyperandrogenemia). Therefore it is important to ensure that the body has enough inositol.

Myo- und D-chiro-Inositol

The second messenger inositol is involved in insulin metabolism in two so-called isoforms: myo-inositol (MI) and D-chiro-inositol (DCI). Both are natural components of many animal and plant source foods. In the body, their roles vary slightly. In liver, both of them are important for carbohydrate metabolism, with myo-inositol triggering cellular glucose uptake and D-chiro-inositol promoting glycogen synthesis. In ovary, MI also stimulates glucose uptake and is responsible for mediating the action of follicle-stimulating hormone (FSH), too. DCI, however, mediates insulin-dependent synthesis of androgens (male hormones). In PCOS patients, the main problem seems to be a disequilibrium between the two isoforms. Therefore **Fertilovit® FPCOS** contains both isoforms in a medically advisable ratio. This allows for optimized dietary management on systemic as well as ovarian level. In this context, the trace element chromium acts synergistically by promoting signal transduction at the insulin receptor.

Omega-3 fatty acids

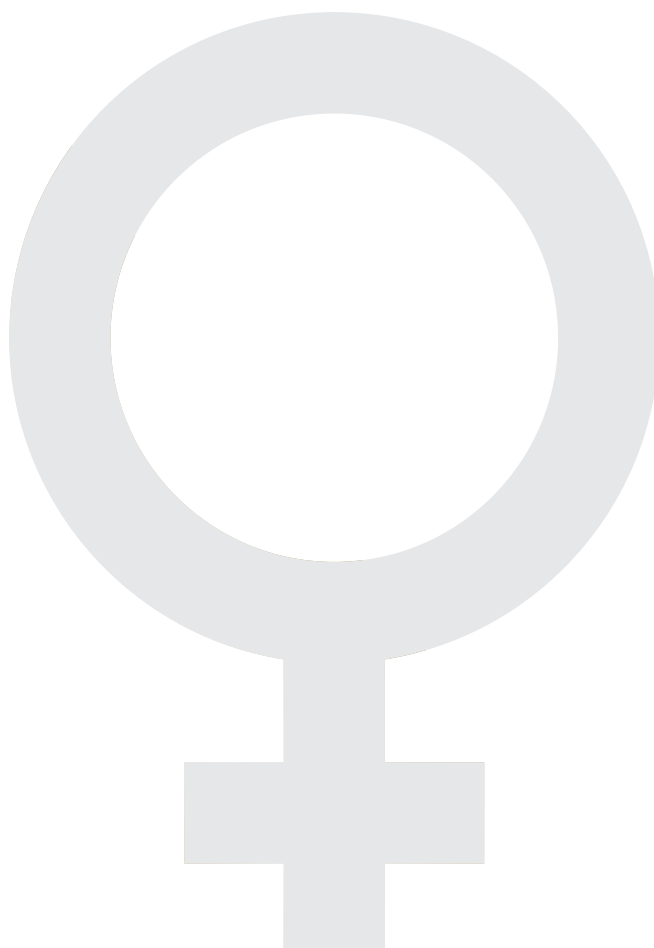
PCOS patients often exhibit an unfavourable ratio between omega-6 and omega-3 fatty acids in the blood. This can lead to a shift of the hormonal equilibrium. For optimization of the physiological ratio between omega-6 and omega-3 fatty acids, **Fertilovit® FPCOS** contains eicosapentaenoic acid (EPA) as well as docosahexaenoic acid (DHA), which represent omega-3 fatty acids with optimal bioavailability.

Folic acid

Like every woman planning for pregnancy, PCOS patients ought to make sure they get enough folate. This vitamin belongs to the B-group of vitamins. Even though it is abundant in green leafy vegetables, it is easily destroyed during storage and meal preparation due to its sensitivity to heat and light. Thus optimal supply is often difficult. In the case of healthy women planning for pregnancy usually an additional supply of 400 µg folic acid daily is recommended. Fertility patients often exhibit a genetic variant in the folate metabolism, which makes it necessary to administer 800 µg folic acid daily.

Vitamin D

At more than 68%, the proportion of PCOS patients with vitamin D deficiency is higher than in the average female population, underlining the importance of an adequate vitamin D supply as well.



Average nutritional values	Per 100 g	Per daily dose
Energy	1,310 kJ (312 kcal)	58 kJ (13.8 kcal)
Fat	9 g	0.4 g
of which saturates	1 g	< 0.1 g
Eicosapentaenoic acid (EPA)	0.9 g	0.04 g
Docosahexaenoic acid (DHA)	4.5 g	0.2 g
Carbohydrate	47 g	2.1 g
of which sugars	0 g	0 g
Myo-inositol	46 g	2.03 g
D-chiro-inositol	0.5 g	0.02 g
Protein	7 g	0.3 g
Salt	< 0.1 g	< 0.1 g
Vitamin D	340 µg	15 µg
Vitamin E	272 mg	12 mg
Vitamin C	1,812 mg	80 mg
Thiamin	75 mg	3.3 mg
Riboflavin	95 mg	4.2 mg
Niacin	1,087 mg	48 mg
Vitamin B6	95 mg	4.2 mg
Folic acid	18,116 µg	800 µg
Vitamin B12	226 µg	10 µg
Biotin	3,397 µg	150 µg
Pantothenic acid	136 mg	6.0 mg
Magnesium	4,302 mg	190 mg
Zinc	226 mg	10 mg
Manganese	45 mg	2.0 mg
Selenium	1,245 µg	55 µg
Chromium	1,812 µg	80 µg
Iodine	3,397 µg	150 µg
Sodium	4.5 mg	0.2 mg
Coenzym Q10	453 mg	20 mg
L-Carnitin	6,793 mg	300 mg
N-acetyl-L-cysteine	2,264 mg	100 mg
Lycopene	226 mg	10 mg

Fertilovit® FPCOS is gluten-free and lactose-free.

Administration form:

Powder and capsules

Packaging size:

60 capsules (30 vitamin/mineral capsules and 30 fish oil capsules) and 30 sachets, One month pack

Net quantity:

132.5 g (vitamin and mineral capsules: 22,6 g, omega-3 fish oil capsules: 19.9 g, sachets: 90 g)

Ingredients vitamin and mineral capsule:

L-carnitin-L-tartrate, hydroxypropyl methyl cellulose, nicotinamide, coenzyme Q10, D-alpha-tocopheryl acetate, zinc oxide, lycopene, calcium-D-pantothenate, manganese sulphate, pyridoxine hydrochloride, thiamine hydrochloride, riboflavin, colour titanium dioxide, pteroylmonoglutamic acid, chromium (III) chloride, potassium iodide, D-biotin, sodium selenite, cholecalciferol, cyanocobalamin.

Ingredients omega-3 fish oil capsule:

Fish oil, gelatine (bovine), humectant glycerol, water, antioxidant tocopherol-rich extract.

Ingredients sachet:

Myo-inositol, magnesium carbonate, N-acetyl-L-cysteine, L-ascorbic acid, D-chiro-inositol, sweetener steviol glycosides, glazing agent ethyl cellulose.

Application:

For the dietary management of the polycystic ovarian syndrome in women planning for pregnancy.

Please note:

Fertilovit® FPCOS is a nutritionally incomplete food for special medical purposes. The product must be used under medical supervision. A varied and balanced diet as well as a healthy lifestyle are important. Please store out of reach of little children.

Signature:

Please take the content of a sachet, dissolved in 200 ml water, 1 vitamin/ mineral and 1 fish oil capsule with plenty of water daily (= 1 daily serving). We recommend the intake of the content of the sachet during the first half of the day and together with a carbohydrate-containing meal.

Best before end:

The best before date is printed on the packaging.

Made in Germany

Sales and distribution:

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