

## PRODUCT INFORMATION

# Fertilichron<sup>®</sup> female

*Phytochemicals and other dietary supplements of anti-aging medicine in chronobiological form to improve female fertility.*

### Basic Facts

The Mayo Clinic defines female fertility as a woman's ability to get pregnant. Up to fifty percent of reproduction disorders are attributable to physical causes in the woman, and in up to another twenty percent of all cases the causes are to be found in both women and men. Female fertility may be impaired by a variety of negative factors: ovulation irregularities, damaged follicles, inflammatory and other diseases affecting the uterus, hormonal changes, and biological age. Selected micronutrients play an important role in women who wish to become pregnant, because they are able to improve the hormonal balance as well as mitigate the other causes leading to female fertility disorders.

Female fertility reaches its climax in the early twenties and, according to the latest findings, begins to decline around the age of 30 and more significantly declines after the age of 35. By this age, the amount of follicles which the female body was endowed with at birth has shrunk to only twelve percent, and this amount further decreases to somewhat over three percent at the age of 40.

They are established in the female body at the time of birth, but remain dormant until puberty. If the relevant parameter are present, three out of four, or 75%, of all healthy women at the age of 30 years who wish to have a baby will get pregnant within one year without undergoing any fertility-stimulating measures or without artificial insemination or assisted reproduction. This will be the case with only 66 percent of women at the age of 36, and only 44 percent of women at the age of 40.

While only nine percent of pregnant women aged around 20 years have miscarriages, this figure increases to over 50 percent at the age of 42 years.

In August 2013, the US National Center for Health Statistics in Hyattsville (US state of Maryland) released some surprising figures

which may provide indications also applicable to other Western nations. The latest findings reveal that there are different development trends which relate to a woman's ability to get pregnant and to her great wish for a successful delivery.

12,279 married women up to the age of 44 years and 10,403 men also up to the age of 44 were included in the survey. The number of women with fertility disorders actually decreased from 8.5 percent in 1982 to 6 percent in 2010. Women were defined as being infertile when they had sex at least once a month during twelve consecutive months of their marriage and did not use any contraceptives. At the same time, the percentage of pregnancies with serious problems or undesirable outcome rose from 11 percent (1982) to at times up to 15 percent.

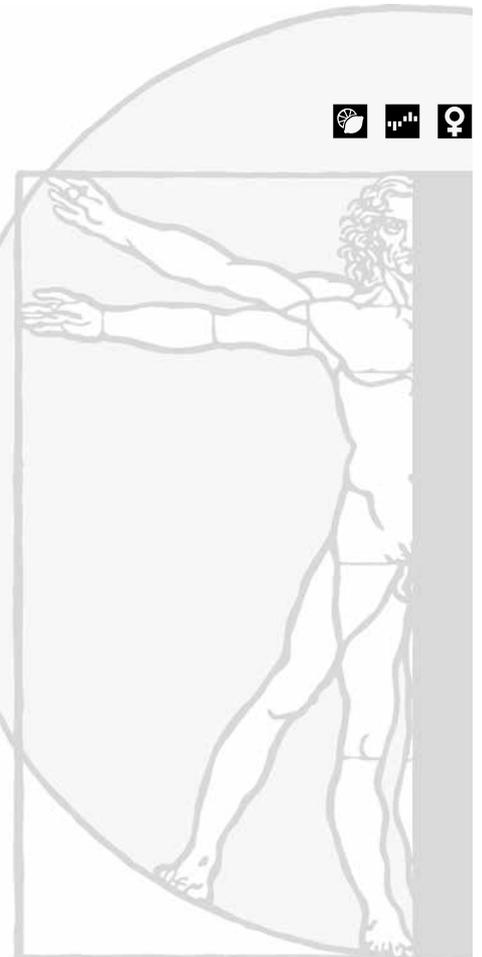
One cannot safely say why one development was positive and the other negative. Influencing factors may be the older age at the time of getting married and at the time of first delivery, but also sexually transmittable diseases, environmental toxins, lifestyle factors such as overweight, or impacts resulting from the pronounced increase in infertility treatments. Neither the financial status nor the educational level of women had a statistical effect.

The so-called impaired fertility, which is characterized by severe pregnancy problems, was clearly shown to be age-dependent. Compared to the group of women aged 24 to 44 years, only half as many women in the age group up to 24 years were affected. An important conclusion to be drawn when planning for a child is to use the time span for optimizing all key parameters.

Since weakened fertility may have several causes, a responsibly designed food supplement program must be composed of a variety of amino acids, vitamins, plant extracts and trace elements. The aim is to use the time span before conception to optimize all

relevant parameters, so that when conception finally takes place, the oocytes are of satisfactory quality and all other preconditions for a successful pregnancy are fulfilled as well. There is a better chance that the maternal and paternal gene pools are successfully combined when more components for a successful fertilization and subsequent implantation are stimulated by natural means.

The interaction of all ingredients, combined in a modern formula based on chronobiological principles, supports the treatment of female fertility disorders in a natural way.



## Effects

With all supporting micronutrients, selecting the optimal dose identified in scientific studies is a decisive factor. A particularly promising factor in achieving the ambitious target of fertilization is the consideration of chronobiological needs of the female body by administering a variety of activating substances – perfectly attuned to one another – in the morning hours, and regenerating substances in the evening hours.

**Myo-inositol**, a vitamin belonging to the comprehensive vitamin B complex, is a key component of the cellular membrane and therefore an important bioactive substance which stimulates cell growth while having a «soothing» effect on insulin production. This B vitamin influences the mother-to-be's brain metabolism and helps the body to produce its own «happiness hormone» serotonin – a real gift for every woman undergoing the strains and stresses of pregnancy.

Studies reveal that during the three months prior to fertilization a higher myo-inositol level in the follicular fluid is a factor for improved oocyte quality. Many women already appreciate the positive effect which inositol has on the skin tissue, but this vitamin is also highly beneficial for the rest of the body.

**L-arginine** is an amino acid which enhances the blood flow to the reproductive organs and helps to create optimal conditions for the implantation of an embryo. A particular function ascribed to this amino acid is the formation of protein-like mucus in the uterus.

**Folic acid** is one of only few micronutrients known to prevent development disorders in the posterior part of the embryonic spine. It is important, however, that at the time of fertilization the body of a woman of child-bearing age already contains a sufficient amount of folic acid, because the latter plays an essential role right from the start of pregnancy. Folic acid deficiency during the last months of pregnancy would also increase the probability of a miscarriage. The special bioavailability of the type of folic acid used here assures optimal efficacy.

**Carotenoids** provide the female body with a precursor of vitamin A. For a good reason the first letter of the alphabet is dedicated to this vitamin as it fulfills important tasks in human reproduction, cell division and growth. The precursor of vitamin A, the so-called provitamin A or beta-carotene, primarily belongs to a group of substances which assist the immune system in protecting the human body against harmful substances and pathogens. Due to their great antioxidant potential, carotenoids are generally classified as powerful protective substances which help the human body to fight and neutralize aggressive free oxygen radicals. The human body uses provitamin A to produce the exact amount of bioactive vitamin A needed at a given time, which makes overdosage unlikely.

The sweet potato extract **Maca** was already used by the Inca kings to boost sexual energy, stamina and appetite. Even in the early millennia of civilization, healers devoted much time and energy to the cure of sexual disorders and resorted to the treasure trove of natural remedies. Macaplex®, the patented mixture of active substances developed on the basis of Maca, contains a wide variety of minerals, essential amino acids, and trace elements, and is currently used not only with the object of enhancing libido. It also has a regulatory effect on the entire sexual hormone system. Stabilizing these hormonal cycles is the first precondition for a healthy and optimally functioning female reproductive system. In addition, Macaplex® enhances physical and mental energy, endurance, as well as the activity of the immune system.

Special tomato molecules, which under the name **Fruitflow®** were shown to produce convincing results in seven scientific studies, were the very first botanical substance to be acknowledged by the critical European Food Safety Authority (EFSA) for its desirable health benefits. The challenge is to ensure an optimized blood flow during this period of peak demand. There are three factors which generally put the cardiovascular system at risk: a wrong blood lipid ratio, hypertension, and a dangerous accumulation of platelets.

The tiny disc-shaped platelets play an important role in blood clotting. When a blood vessel gets damaged, they gather on the inside of the wound to seal and protect it. Stress, overweight and LDL cholesterol may cause the platelets to become too sticky, and this is dangerous. The ingredients of Fruitflow® keep the platelets soft and smooth without infringing their blood-clotting properties. These are substances with which tomatoes cover their seeds.

The EFSA was convinced of the desirable effect of these substances by a highly sophisticated testing method. 27 men and women aged between 40 and 65 years had to swallow either a powdered tomato extract or a placebo powder with no effect, then vice versa. Concurrently, they agreed to have blood withdrawn from their veins through permanent cannulas at intervals, over a period of seven hours. Every hour, 20 milliliters of blood were taken for analysis.

The test started at 7 a.m., and only 90 minutes later the group that had swallowed the tomato extract showed an improved blood, whereas the other group didn't. This positive effect on the blood lasted for 18 hours.

This outcome caused the EFSA to approve of the following official statements: «Fruitflow helps to keep platelets in a healthy condition and thereby contributes to an improved blood flow» and «Fruitflow supports cardiovascular health.»

In 2011, these tomato substances were honored with the international «NutrAward».

Fruitflow® is contained in the Fertiliplax® capsule of FertiliChron® female which needs to be taken in the morning.

**CoQ10**, a co-enzyme involved in a variety of biological processes, also plays a key role in the successful fertilization and implantation of the oocytes. Thanks to the latest developments and the use of high-quality raw materials, bioavailability and thus efficiency have been greatly enhanced.

The polyphenol **resveratrol** is a natural, highly efficient antioxidant. It is primarily extracted from the skin of grapes and has been shown to have a high antioxidant potential as a radical scavenger. Resveratrol not only neutralizes reactive oxygen molecules; it also offers the mother-to-be vascular protection, especially by inhibiting the oxidation of LDL cholesterol in the blood and as a direct consequence preventing its build-up in the wall of the blood vessels. Resveratrol is also greatly beneficial for the unborn baby as it controls special cellular processes (including longevity SIRT genes) and supports many cellular functions.

At the same time, prophylactic administration of a balanced combination of vital vitamins, minerals and essential trace elements in the pre-pregnancy period provides the female body with all the substances it will need in larger amounts during pregnancy and breast-feeding. The food supplement **Pregnachron®**, which has been specially developed for pregnant and breast-feeding women, is already included in the morning and evening sachets of **Fertilichron®** female and also assures that all vital substances needed during these stages of life are chronobiologically attuned to each other. At a later stage, they will be passed on from the mother's body to her baby.

These are the most important ingredients:

**Vitamin C** (Ascorbic acid) is a water-soluble vitamin whose important function is to protect tissue structures, cell membranes and cell components such as proteins and enzymes from oxidative damage due to free radicals. The risk of this damage is especially pronounced in times of increased metabolism, e.g. during physical strain, acute disease, and also pregnancy.

**Vitamin E** (Tocopherol) also serves to protect the body from oxidative stress and to repair damage that has already occurred. This fat-soluble substance is found mainly in cell membranes, where it develops anti-oxidative significance by supporting and intensifying the active properties of vitamin C.

**Carotenoids**, which have been described already, are a further class of fat-soluble antioxidants that serve as natural coloring agents in plant-based foodstuffs. The graduated and coordinated action of several antioxidants is needed to protect the body from oxidative damage in an optimal way.

**Vitamin A**, which has also been mentioned already, has several effects, including, for example, the growth and differentiation of monolayer or multilayer tissues and of bone mass, support of placental and embryonic development, and positive effects on the immune system.

The various substances of the **Vitamin B complex** serve as important components in several enzymes which initiate key processes in metabolism. States of deficiency mainly occur when the body needs larger quantities of the substance, for instance when the rapidly growing embryonic tissue during pregnancy requires a high turnover of substances. **Vitamin K** is needed in the liver for the formation of several coagulation factors. A vitamin K deficiency may cause dangerous hemorrhage in the infant during delivery. At the same time, vitamin K deficiency also appears to be associated with a higher rate of miscarriage, especially during the first days following conception.

**Vitamin D** increases the intestinal absorption of calcium and phosphate from food, promotes the activation of both of these substances in bone, enhances mineralization, and maintains the required calcium levels in blood by increasing the absorption of calcium from food and minimizing its loss through the kidneys.

The **MCHC®** contained in **Pregnachron®** is a most exceptional substance, namely microcrystalline hydroxylapatite. Hydroxylapatite forms the foundation of the hard substance of all vertebrates, including humans. It makes up 40 percent of the bone material and almost 100 percent of tooth enamel. In addition to calcium and phosphate, which are important substances, MCHC includes all minerals required in healthy bone substance, in the same ratio. The special microcrystalline form of administration allows optimal absorption of this substance by the human body. In this way, states of deficiency in the developing infant, which may lead to skeletal deformation, are prevented early. A healthy calcium balance is also needed to assure that the fertilized egg implants into the lining of the uterus and the desired pregnancy is achieved.

Like folic acid, which has been described already, **Biotin** is a co-enzyme involved in several metabolic processes. The need for this co-factor is very high during the days before a pregnancy and during the entire period of pregnancy and lactation.

Important **minerals** and **trace elements** such as magnesium, copper, zinc, iodine, iron, selenium, manganese, chromium and molybdenum as well as Omega 3 fatty acids are included in **Pregnachron®**.

Iodine, selenium, calcium and other bone nutrients should already be stored in sufficient quantity in the female body at the time of fertilization and before the formation of the placenta.

Iodine deficiency is regarded as one of the most common causes of developmental disorders during pregnancy worldwide. Magnesium deficiency, in turn, plays a role in many pregnancy complications. Minerals and chemical elements, such as molybdenum, support the effectiveness of amino acids and enzymes, especially when they are administered together with these in the correct chronobiological combination.

**Omega 3 fatty acids** are needed by the body for many diverse, partly vital functions. They are key components for a healthy fetal brain development, indispensable for the formation of nervous cells and an integral component of the cell walls. Omega 3 fatty acids moreover improve the flow properties of blood and thereby lower the blood pressure. They also positively impact blood lipid levels and are among the most important vital substances assuring a healthy cardiovascular system. Among the most important essential fatty acids are DHA, docosahexaen acid, and EPA, eicosapentaen acid. They cannot be produced by the body itself and therefore have to be administered. If they occur in sufficient quantity before a woman gets pregnant, the probability of a successful pregnancy outcome is much higher.

## Composition

### Fertilichron® female AM (morning)

Content morning packet: 1 caps. Fertiliplex® female AM (yellow/white), 2 caps. Pregnachron® AM (yellow)

#### 1 caps. Fertiliplex® female (yellow/white)

	Per capsule	
Myo-inositol	50 mg	
L-arginine HCl	50 mg	
Macaplex®	300 mg	
Fruitflow® (tomato concentrate)	150 mg	
Vitamin D	5 mcg	

#### 2 caps. Pregnachron® (yellow)

	Per capsule Daily dose	
Natural carotenoids (beta-carotene, lutein, lycopene)	10 mg	20 mg
Vitamin B6	1 mg	2 mg
Vitamin C	75 mg	150 mg
Vitamin D	2,5 mcg	5 mcg
Vitamin E	50 mg	100 mg
Vitamin K	33 mcg	66 mcg
MCHC®	100 mg	200 mg
Manganese (Mn)	1 mg	2 mg
Chromium (Cr)	20 mcg	40 mcg
Molybdenum (Mo)	50 mcg	100 mcg
Iodine (I)	85 mcg	170 mcg
Selenium (Se)	35 mcg	70 mcg
Omega 3 complex (containing EPA 30 mg, DHA 20 mg)	50 mg	100 mg
Calcium (Ca)	150 mg	300 mg
Coral Calcium®	12,5 mg	25 mg
Bioperine®	1,25 mg	2,5 mg

All ingredients in pharmaceutical grade.  
Other ingredients: rice flour, SiO<sub>2</sub>, magnesium stearate, stearic acid, tricalcium phosphate.

## Composition

### Fertilichron® female PM (evening)

Content evening packet: 1 caps. Fertiliplex® female PM (blue/white), 1 caps. Redwine complex (red/white), 2 caps. Pregnachron® PM (blue), 1 Softgel Omega 3

#### 1 caps. Fertiliplex® female (blue/white)

	Per capsule	
Folic acid	200 mcg	
Co Q10	200 mg	
Macaplex®	300 mg	

#### 1 caps. Redwine complex (red/white)

	Per capsule	
Resveratrol	120 mg	
Quercetin	50 mg	
Catechins	30 mg	
OPC	30 mg	

#### 2 caps. Pregnachron® (blue)

	Per capsule Daily dose	
Vitamin B1	7,5 mg	15 mg
Vitamin B2	7,5 mg	15 mg
Niacinamide	9 mg	18 mg
Pantothenic acid	6 mg	12 mg
Vitamin B12	2 mcg	4 mcg
Folic acid	300 mcg	600 mcg
Biotin	100 mcg	200 mcg
MCHC®	100 mg	200 mg
Magnesium (Mg)	75 mg	150 mg
Iron (Fe)	7,5 mg	15 mg
Copper (Cu)	0,5 mg	1 mg
Zinc (Zn)	7,5 mg	15 mg
Omega 3 complex (containing EPA 30 mg, DHA 20 mg)	50 mg	100 mg
Calcium (Ca)	100 mg	200 mg
Coral Calcium®	12,5 mg	25 mg
Bioperine®	1,25 mg	2,5 mg

#### 1 Softgel Omega 3

	Per Softgel
Fish oil concentrate (contains EPA 500 mg, DHA 250 mg)	1000 mg

All ingredients in pharmaceutical grade.  
Other ingredients: rice flour, SiO<sub>2</sub>, magnesium stearate, stearic acid, calcium carbonate, glycerin, water and vitamin E as natural D-alpha tocopherol.

The omega 3 softgel contains gelatin, traces of anchovies and vitamin E (from soy). The fish oil is a product from Chile and Peru.

## Dosage

In normal cases, take the entire content of the morning packet (AM) in the morning and the entire content of the evening packet (PM) in the evening with plenty of fluid.

## Instructions

Food supplements are no substitute for a well-balanced diet and a healthy lifestyle. The indicated recommended daily intake should not be exceeded. Persons under constant medical care should consult a physician before taking the supplements. Product information is not to be considered a statement regarding cure; in general, we advise against self-medication without proper consultation of a doctor. Subject to mistakes and print or typographical errors.

Store in a cool and dry environment, out of reach for children.

### Fertilichron® female Product Groups

Fertilichron® female can be found in the following product groups ([www.vitabasix.com](http://www.vitabasix.com)):

-  Vitamins & Food Supplements
-  Chronobiology
-  Women's Health

Manufacturer:



**VitaBasix®**

by LHP Inc.

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### Important information:

Our products are manufactured in accordance with the GMP (Good Manufacturing Practice) standard. Their quality, purity and concentration are regularly tested in independent test laboratories, in keeping with the FDA (Food and Drug Administration) guidelines.

Our products should be regarded as preventive measures or measures to enhance the individual's general wellbeing. Patients must consult a doctor before using the products for the treatment of diseases.

Subject to alterations and printing errors. Version: May 2020