

# VALENS®



## VALENS LADY

Dietary supplement for women  
using hormonal contraception

# CONTRACEPTION

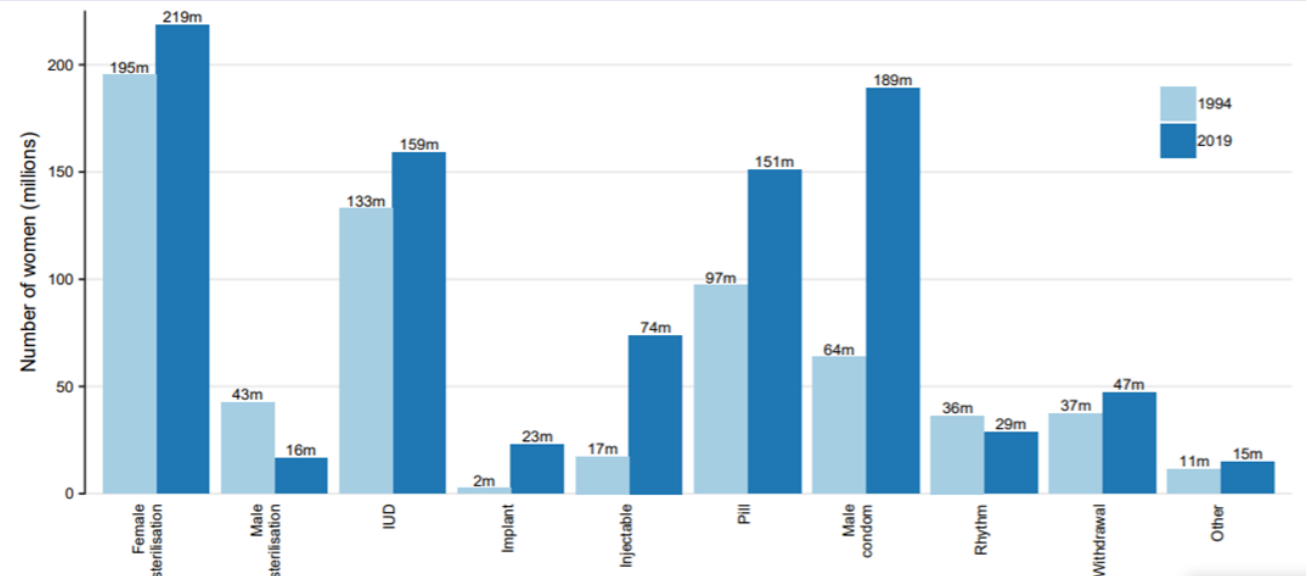
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- Method or device, used to **prevent pregnancy**.
- Different methods:
  - Physical barriers (condoms, diaphragms)
  - Hormonal contraceptives (combined pills, patch, intrauterine system or device, vaginal ring etc.)
  - Sterilisation
  - Natural and behavioral methods (abstinence)
- Some methods provide protection against sexually transmitted diseases.
- **Combined oral contraceptive pill** (often referred to as **birth control pill** or simply ***the pill***) is one of the most popular and common methods used worldwide.

# STATISTICS

- Prevalence of specific method varies across the world, with hormonal contraceptives being the most commonly used methods (after female sterilization).
- Prevalence of *the pill* is the highest in European countries.
- It is used by over **20%** of women of reproductive age in 27 countries worldwide.

Figure 5. Estimated numbers of women of reproductive age (15–49 years) using various contraceptive methods, 1994 and 2019



# COMBINED BIRTH CONTROL PILL

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- Oral contraceptives that contain a combination of **estrogen** and **progestin**.
- Effective (97-98%) and safe method of contraception, designed for women.
- Alters the menstrual cycle to **eliminate ovulation** and **prevent pregnancy**.
- Mechanism of action:
  - Prevents the ovaries from releasing an egg.
  - Thickens the mucus in the neck of the womb (harder for sperm to penetrate the womb).
  - Thins the lining of the womb to prevent implanting of the fertilized egg.
- Favorable safety profile → nonetheless, cause both temporary and long-term side effects (nausea, headaches, tiredness, bloating, water retention, mood swings etc.).

# IMPACT UPON NUTRITIONAL STATUS

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- More and more research is investigating the **physiological effects of oral contraceptives**.
- Some studies have identified negative impacts upon **nutritional status of certain vitamins and minerals**:
  - Vitamin A,
  - B vitamins,
  - Zinc, selenium,
  - **Antioxidant capacity** (CoQ10, vitamin E).
- **It is valid to consider appropriate nutritional supplements as a complementary strategy to prevent vitamin and mineral deficiencies.**

# WATER RETENTION

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- The oral contraceptive pill activates the renin-angiotensin-aldosterone system (**RAAS**), involved in the regulation of blood pressure and **balancing fluid** and **electrolyte level** (regulates sodium and water absorption in the kidney).
- **Higher sodium concentrations lead to water retention and swollen legs, which is a common side effect for hormonal contraceptive users.**
  - Excess estrogen as a consequence of contraceptives → higher levels of aldosterone → elevated sodium retention in the kidneys → body water retention and swelling

# B-COMPLEX

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- B vitamins have an important role in human health and well-being. Separately and combined, B-complex vitamins contribute to:
  - Normal functioning of the nervous system,
  - Normal energy-yielding metabolism,
  - Maintenance of normal skin, hair and nails,
  - Normal function of the immune system,
  - Reduction of tiredness and fatigue,
  - Normal psychological function.
- **Oral contraceptive pill use is associated with lower serum vitamin B concentrations.**
- **Folic acid** might be especially problematic → deficiency may cause problems in future pregnancy (neural tube defects in fetus)

# VITAMIN C

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- Main water-soluble antioxidant, contributing to:
  - Normal functioning of the nervous system,
  - Normal energy-yielding metabolism,
  - Normal function of the immune system,
  - Reduction of tiredness and fatigue,
  - Normal psychological function,
  - Protection of cells from the oxidative stress.
- It is involved in many other function, including **iron absorption, collagen synthesis**, regeneration of other antioxidants (vitamin E, glutathione) etc.
- Oral estrogen contraceptives may decrease the effects of vitamin C in the body and reduce antioxidant (including glutathione) levels overall → **causing oxidative stress.**

# VITAMIN E

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- Fat-soluble **antioxidant**, protecting lipids and protein molecules from oxidation.
- Use of oral contraceptives (OC) significantly lowers the serum levels of vitamin E (**α-tocopherol, active form of vitamin E**) and overall antioxidant levels.
- Clinical studies demonstrated:
  - 23% lower serum levels of α-tocopherol in birth control users, compared to women, not using OC.

**Supplementation with vitamin E may be required to re-establish healthy cellular redox balance.**

# SELENIUM

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- Essential **element** and an **antioxidant**, which contributes to:
  - Normal function of the immune system.
  - Normal thyroid function,
  - Protection of cells from oxidative stress.
- Research suggest that all forms of hormonal contraceptive methods **reduce blood selenium levels.**

# ZINC

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- Zinc is an **essential mineral and an antioxidant**, contributing to:
  - Normal DNA and protein synthesis
  - Normal carbohydrate metabolism
  - Normal cognitive function
  - Normal fertility and reproduction
  - Normal macronutrient, fatty acids and vitamin A metabolism
  - Maintenance of normal bones, hair, nails, skin and vision
  - Normal function of the immune system
  - Protection of cells from oxidative stress
- Most blood plasma zinc is bound to **albumin** (main protein in blood plasma).
- Estrogen (even low dose oral contraceptives) can induce reduction in serum albumin, causing a **decrease in zinc levels → suggesting necessity for supplementation.**

# COENZYME Q10

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- Vitamin-like nutrient, naturally found in the human body and present in **every cell**.
- Strong natural antioxidant that acts synergistically with other **antioxidants (vitamin E)**.
- Essential component of cellular energy formation. Accounts for 95% of the energy in the body.
- Health benefits of CoQ10:
  - cardiovascular health and energy,
  - neurodegenerative diseases (especially mitochondrial types),
  - male infertility, migraines and dental health,
  - skin health.
- Endogenous production of CoQ10 decreases rapidly after the age of 25 → additionally, **oral contraceptives cause significant reduction in CoQ10 blood levels and total antioxidant capacity.**

# VALENS LADY

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- Dietary supplement for women on birth control pills.
- Contains carefully selected vitamins, minerals and antioxidants to improve their nutritional status:
  - **Active forms** of B vitamins
  - Vitamins C and E
  - Zinc and Selenium
  - **Q10Vital®**, water-soluble form of CoQ10 with 4-times better absorption
  - *Vitis vinifera* extract



# RED VINE LEAF EXTRACT

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- High **polyphenol** content (micronutrients that naturally occur in plant) → strong **antioxidant activity**.
- Contributes to a **good blood flow in the legs**.
- Helps to decrease the sensation of **heavy legs**.
- Helps to reduce cellulitis aspect, supports slimming and helps to **control normal body weight**.

# ACTIVE INGREDIENTS

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- Active ingredients in recommended daily dose (1 capsule):
  - Thiamin: 3 mg (273% NRV)
  - Riboflavin: 2 mg (143% NRV)
  - Vitamin B6: 8 mg (571% NRV)
  - Folic acid: 400 µg (200% NRV)
  - Vitamin B12: 15 µg (600% NRV)
  - Vitamin C: 80 mg (100% NRV)
  - Vitamin E: 6 mg (50% NRV)
  - Zinc: 5,5 mg (55% NRV)
  - Selenium: 45 µg (82% NRV)
  - Coenzyme Q10: 30 mg
  - Red vine leaf extract: 360 mg.

# ADVANTAGES AT A GLANCE

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- Active forms of B vitamins and water-soluble form of CoQ10 with best bioavailability.
- Red vine leaf extract, which supports blood circulation and helps with leg swelling.
- No additives
- 30 capsules
- Suitable for vegans
- GMP certified product
- Made in Slovenia (EU)



- Recommended daily dose: 1 capsule

# VALENS<sup>®</sup>



CARELESSLY  
ENJOY YOUR  
EVERYDAY!

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Thank you for your attention.