

# Nutritional Support for Oral Contraceptives

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## Impact of Oral Contraceptives on Nutrient Status

Oral contraceptives (birth control pills) work primarily by preventing ovulation. They usually contain synthetic estrogen and progestin, which maintain steady hormone levels that suppress the natural hormonal cycle needed to trigger ovulation. In addition, they thicken cervical mucus, making it harder for sperm to reach an egg, and alter the uterine lining, reducing the likelihood of implantation. Together, these mechanisms make pregnancy highly unlikely when the pills are taken consistently and correctly.

While oral contraceptives are very effective at preventing pregnancy, they can contribute to nutrient depletion in long-term users. The synthetic estrogens and progestins in these medications increase nutrient requirements through altered liver and renal metabolism, decreased absorption, changes in the gut microbiota, and increased oxidative stress. Key vitamins and minerals that are impacted include B6, B12, folate, magnesium, zinc, and other trace minerals.

Dietary and lifestyle strategies can help restore key nutrients, support absorption, reduce metabolic strain, and counter oxidative stress in women taking oral contraceptives.

## Supportive Lifestyle Practices

- Promote activation of the parasympathetic nervous system through vagus nerve stimulation, diaphragmatic breathing, or other mindfulness activities. Activation of the parasympathetic nervous system has been found to promote salivary enzyme secretion and stimulate gastric juices, encouraging proper digestion and nutrient absorption.<sup>1</sup>
- Encourage daily hydration to support healthy bowel motility. Magnesium depletion can reduce water in the intestines,

leading to harder, more difficult-to-pass stools.<sup>2</sup> Consistent fluid intake helps improve stool consistency and promotes regularity.

- Advise patients to limit alcohol intake to protect liver function and nutrient status. Alcohol impairs absorption and increases the loss of folate, B6, B12, vitamin E, magnesium, and selenium, compounding the depletions already linked to oral contraceptive use and making repletion more challenging.<sup>3</sup>

## Whole Foods Nutritional Recommendations

- Encourage consumption of organ meats, red meat, poultry, salmon, and dairy—foods rich in vitamins B3, B6, B9, and B12, which are often depleted by oral contraceptive use. These B vitamins are critical for energy metabolism and nervous system function, acting as key cofactors in neurotransmitter synthesis.<sup>4</sup>
- Encourage consumption of magnesium-rich foods such as Swiss chard and buckwheat, as oral contraceptive use can lead to magnesium depletion. Elevated estrogen levels raise the body's demand for magnesium while also promoting its loss through urine.<sup>5</sup> Magnesium is essential for nervous system balance, endocrine function, detoxification, and a healthy stress response.
- Consuming folate-rich foods, such as turnip and collard greens, chickpeas, and lentils, is essential for women taking oral contraceptives. Folate depletion is well-documented with oral contraceptive use.<sup>6</sup> Folate is essential for methylation, vascular and neurological health, and one-carbon metabolism.

# Dietary Supplement Regimen



## B<sub>6</sub>-Niacinamide

Suggested Use: **1 tablet per day**

B6-Niacinamide supplies B vitamins to support the cardiovascular, digestive, endocrine, circulatory, and central nervous systems.\*



## Cataplex® E<sub>2</sub>

Suggested Use: **2 tablets per day**

- Supports cellular health and general well-being\*
- Good source of selenium and antioxidant vitamin E



## E-Z Mg™

Suggested Use: **6 tablets per day**

E-Z Mg is an organic magnesium supplement developed to support patients with inadequate dietary magnesium intake and is comprised of Swiss chard and buckwheat.\*

Adequate magnesium is essential for central nervous system health, and good magnesium status is associated with:

- Brain health\*
- Neurotransmitter activity\*
- Healthy stress levels\*



## Whole Food Folate™

Suggested Use: **6 tablets per day**

Standard Process Whole Food Folate is a folate supplement containing natural sources of folate (B9) and B12 without folic acid.

- In combination with a healthy, folate rich diet:
  - Supports homocysteine metabolism\*
  - Supports healthy methylation capacity\*
- Supports central nervous system health, including neurotransmitter synthesis\*
- Supports healthy cellular processes such as DNA formation and replication\*
- Supports red blood cell health\*

## Assessment of Nutrient Depletion with Oral Contraception

### In Office/Physical Exam

- Signs/symptoms: Poor stress response, irritability, muscle cramps, headaches, fatigue, constipation, PMS-like symptoms, tingling in hands/feet

- Lab studies: Complete blood count (CBC), comprehensive metabolic panel (CMP), iron panel with ferritin, homocysteine, hs-CRP, methylmalonic acid (MMA), RBC magnesium

### REFERENCES

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4. Hanna, M. et al. (2022). Perm J, 26(2), 89-97.
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