



# Oral Contraceptives: *The Need to Compensate with Dietary Supplements*

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Literature Education Series On Dietary Supplements

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## **The Good**

It has been almost 50 years since FDA approved “the pill” for contraception. It is still the most popular and one of the most effective forms of reversible birth control ever invented. In fact, today more than 18 million women use birth control pills in this country. Unlike the original oral contraceptives, today’s birth control pills have been changed to include less hormones, resulting in fewer side effects. The pill can also be used to help normalize an otherwise troublesome menstrual cycle.

## **The Bad**

I am sure that every woman using Birth Control Pills (BC) has been thoroughly counseled by their physician about the risks taking these hormone drugs. Some of the severe but rare risks include: Heart attacks, but primarily in women over 35 and those who smoke. Stroke, again more of a risk factor in older women and smokers, venous thromboembolism, a rare blood clot condition that manifests as pain, swelling, and varicose veins.

According to the Mayo Clinic, BCs used for long periods of time increases your risk of some cancers like cervical and liver, but

decreases your risk of ovarian and endometrial cancer. BCs may also affect cholesterol levels and increase blood pressure. I would like to add that BCs cause weight gain, but studies have shown that the effect on weight is small if it exists at all.

## **The Ugly**

Back in the 1970’s studies started appearing in the scientific literature that BCs were responsible for depleting a variety of nutrients. Subsequent studies now document the fact that oral contraceptives deplete the B Vitamins 2,6,12 and folic acid, the minerals Zinc and Magnesium, and Vitamin C. What does that mean to you? Have a seat and read on.

Vitamin B-2: This vitamin among other things is necessary for cell respiration, red blood cell formation, antibody production, and the metabolism of carbohydrates, fats and protein. It is key to eye health, tissue repair, and healthy skin. Deficiency symptoms of B-2 include lesions around the mouth and tongue, eye and vision problems, digestive disturbances, and impaired red blood cell formation resulting in anemia. Key benefits of adequate levels of B-2 are good physical performance, energy metabolism, regeneration of glutathione (one of the cells most important antioxidants), and activation of other B vitamins

Vitamin C: One of the chief functions of Vitamin C in the body is the production of collagen in the connective tissue. These fibers provide firm but flexible support for

blood vessel walls, tendons, and ligaments, in addition acting as a matrix for bone growth. A deficiency of Vitamin C may result in symptoms which include: poor wound healing, easy bruising, hemorrhages in the eye, inflamed or bleeding gums, joint pain or swelling, excessive hair loss, loose teeth, compromised immunity, or anemia.

Magnesium: This is a mineral that is already frequently deficient in U.S. diets. Magnesium and Calcium work together interactively in the formation of bones and teeth. However in its own right, magnesium plays an integral role in nearly 300 functions in the body. Magnesium is necessary for normal functioning of muscle and nervous tissue. As a result, it is often known as the “anti-stress mineral”. Deficiency symptoms include excessive irritability of nerves and muscles, nervous tics and twitches, weakness, insomnia, anxiety and depression.

Zinc: This mineral is necessary for wound healing and tissue repair. It is a constituent of over 200 enzymes involved in digestion and metabolism, is essential in the synthesis of nucleic acids and is necessary for normal blood sugar and eye function. Deficiency symptoms include depressed immunity, impaired taste, impaired smell, impaired wound healing, impaired memory, increased fatigue, frequent infections, hair loss, and mental disturbances.

Vitamin B-6: B-6 may be used in more body functions than any other vitamin. It is essential for the metabolism of fats, particularly the essential fatty acids, antibody production, DNA and RNA activity, glycogen conversion to glucose and red blood cell formation. However, it is more essential in the major role it plays in protein, hormone, and neurotransmitter production. A deficiency of B-6 can cause a reduction of the conversion of tryptophan into serotonin. A deficiency of serotonin is strongly associated with depression. In another pathway serotonin is converted to melatonin. If this is retarded insomnia will

result. Other B-6 deficiencies include; irritability, hair loss, muscular weakness, and water retention.

Vitamin B-12: This vitamin is fundamental in the metabolism of normal nerve tissue and in the healthy formation of red blood cells and oxygen transport, for this reason the nickname of this vitamin could be the “energy B vitamin.” A deficiency of B-12 may result in anemia. Other symptoms may include irritability, nervousness, fatigue, brain dysfunction and memory problems, depression, and mood changes.

Folic Acid: Unless one is a big fan of fresh green leafy vegetables the American diet is low in this vitamin. Folic acid plays a critical role in the production of DNA, the substance responsible for making new cells in the body. A deficiency of folic acid causes abnormal cells to be produced especially where a high rate of turnover occurs, like the bone marrow. Thus, a deficiency of Folic acid may look like low red blood cells, or tiredness, weakness and lethargy.

Homocysteine: Folic acid, B-12, and B-6 are collectively required to convert a toxic metabolite of protein metabolism called homocysteine into a harmless by-product. Inadequate supplies of these B vitamins will result in a build up of homocysteine thus damaging arteries and leading to atherosclerosis. Most healthcare professionals consider homocysteine a marker for increased risk of cardiovascular disease and prescribe drugs against it. Other problems being associated with high homocysteine levels are; stroke, blood clots, Alzheimer’s, dementia, eye disorders, and kidney disease.

### **The Take Home Message**

If you are a typical woman, eating a typical American diet, undergoing a woman’s typical daily stress, and perhaps even dieting, you are probably already not getting enough nutrition through your food intake.

In fact, The Third Nationwide Food Consumption Survey revealed that adult females failed to meet the minimum intake of Calcium, Vitamin E, Vitamin B-6, Magnesium, and Zinc. That is five major nutrients without taking BCs. If you are taking oral contraceptives, you are at a far greater risk of suffering a nutritional gap, the difference between optimal and suboptimal wellness. If you are suffering from fatigue, depression, anxiety, or impaired memory; if you get sick often, bruise easily, or have problems with your hair, skin, or nails; or if you are suffering from any of the other above mentioned deficiency symptoms, it may be directly the result of depletions caused by your BC.

What would I do, if I were a female, 40 years younger, and taking BC? I would bridge any nutritional gaps by taking dietary supplements. I would begin with a High Potency Multiple Vitamin. Read the label. See that it contains a minimum of the following: Vitamin C 250mg, Vitamin B-2 50mg, Vitamin B-6 50mg, Vitamin B-12 75mcg, Folic Acid 400mcg, Zinc 15mg. Keep in mind that a multi-vitamin that contains beyond the basics may require more than one tablet to hold the extras. If you are already taking a low potency, mass market multiple and want to use it up, consider adding on a Homocysteine Defense formula. This should boost up your Folic Acid, B-6, and B-12. If you have questions, ask your pharmacist.

In order to insure adequate intake of Magnesium, I would take a Calcium supplement that includes this valuable mineral. Look for a Calcium that contains a 2:1 ratio of Magnesium. I recommend 1000mg – 1500mg of Calcium daily. This would deliver you 500mg – 750mg of Magnesium daily. Magnesium, in addition to improving the utilization of Calcium by your bones, will also offset any constipating effects the Calcium may be causing you.

The bottom line is that it is very hard to eat a perfect diet. Americans are the most overfed population in the world, yet are far down the list of the healthiest countries in the world. Everyone should take a good multiple vitamin as an insurance policy for optimal health. Oral contraceptives are just one of a long list of drugs that can deplete essential nutrients.



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