

Oral contraceptives are known to cause low vitamin B6 and zinc

Now that we know that oral contraceptives i.e. the birth control pill, cause low vitamin B6 and zinc, we can also conclude that this subset of women may also suffer more frequently from an increase of anxiety and depression. This would be made possible because we also know a decrease in B6 and zinc reduce our serotonin levels which normally keep us happy.

Dr. Daniel Amen sees the association between the birth control pill and anxiety/depression in his practice and shared this with my friend and clinical nutritionist when she interviewed him during a national online Anxiety Summit.

Unfortunately, they drop serotonin levels. You've got to ask yourself why are 23 percent of women between the ages of 20 and 60 taking antidepressants? In large part, it's the birth-control pills that are changing the hormones in their brain, the neurotransmitters in their brain. All of a sudden they're more anxious and they're more depressed.

Oral contraceptives lower serotonin due to various nutrient depletions and can also impact mood due to effects on the progesterone/estrogen ratio.

Drug-induced nutrient depletions, especially vitamin B6

Many medications cause drug-induced nutrient depletions and oral contraceptives do this too. My friend and clinical nutritionist, Trudy Scott also reports on the following research articles. In this 2013 paper, [Oral contraceptives and changes in nutritional requirements](#), the authors report:

It has been shown that the key nutrient depletions concern folic acid, vitamins B2, B6, B12, vitamin C and E and the minerals magnesium, selenium and zinc.

Zinc, magnesium, folate, vitamin C and vitamin B6 are all needed for the conversion of tryptophan to serotonin and can therefore impact both anxiety and depression, [accentuating or precipitating the development of depression](#) (and presumably anxiety too) in susceptible women.

The World Health Organization (WHO) report, [Advances in Fertility Regulation](#), states that:

It has been shown that about 80% of women taking oral contraceptives have abnormal tryptophan metabolism suggestive of relative B6 deficiency.

Many of these same nutrients have a major impact on [how women handle stress](#):

Magnesium and vitamin B6 may be effective in combination in reducing premenstrual stress, and vitamin B6 alone may reduce anxiety effectively in older women. High-dose sustained-release vitamin C may reduce anxiety and mitigate increased blood pressure in response to stress.

Zinc and copper imbalances occur very quickly

In this paper published in 1980, [Serum copper and zinc in hormonal contraceptive users](#), it is reported that

Use of combined estrogen-progestogen contraceptives resulted in a significant decrease in serum zinc levels within 3 days and an increase in serum copper levels within 10 days.

In users of combined estrogen-progestogen contraceptives the magnitude and time of occurrence of the decrease in zinc levels and the increase in copper levels was unaltered by chemical composition, dosage, route of administration, and duration of use beyond 3 months.

We know zinc plays [a role in the serotonergic system, reducing depression](#) and [anxiety](#).

Zinc and vitamin B6 are also key nutrients for alleviating symptoms of [the social anxiety condition called pyroluria](#).

Lowered levels of endogenous estradiol and progesterone

Other mechanisms on how oral contraceptives lower serotonin relate to lowered levels of endogenous estradiol and progesterone (i.e. the estradiol and progesterone our bodies make), as well as out of balance progesterone/estrogen ratios leading to negative moods and emotional changes. The decreased prolactin response mentioned in this paper suggests reduced serotonergic activity.

High clinical relevance

The WHO report mentioned in the 2013 paper (mentioned above), states that this topic of nutrient depletions with oral contraceptives has high clinical relevance and should be receiving the attention it deserves.

Unfortunately, the nutrient-depletion with oral contraceptives conversation is not something many of my clients have ever had with their doctors, despite this being old news. The WHO report was published over 40 years ago, in 1975!

I'm particularly concerned about teens starting on birth control at such a young age and starting down this very slippery slope with no awareness of what they are getting into.

My recommendation is to NOT use oral contraceptives because of this increased risk in depression and anxiety. However, when I do prescribe oral contraceptives, I also prescribe a good multivitamin and B-vitamin to go with it.

If you (or your daughter or grand-daughter or sister or friend) chooses to use oral contraceptives we need this awareness and you/they will very likely need to address these nutrient deficiencies.