



Nutritional and Environmental Influences on Fertility

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Key:

- = vitamins, minerals, or other nutrient deficiencies
- = commonly prescribed medications and their effects on nutrients
- = physiological condition or consequences
- = environmental/lifestyle factors

References:

1. Schachter M, Raziel A, Strassburger D, et al. Prospective, randomized trial of metformin and vitamins for the reduction of plasma homocysteine in insulin-resistant polycystic ovary syndrome. *Fertil Steril* 2007;March 3 [Epub ahead of print.]
2. Panidis D, Balaris C, Farmakiotis D, et al. Serum parathyroid hormone concentrations are increased in women with PCOS. *Clin Chem* 2005;51(9):1691-97.
3. Kilicdag EB, Bagis T. Administration of B-group vitamins reduces circulating homocysteine in PCOS syndrome patients treated with metformin: a randomized trial. *Hum Reprod* 2005;20(6):1521-28.
4. Thys-Jacobs S, Donovan D, Papadopoulos A, et al. Vitamin D and calcium dysregulation in the PCOS. *Steroids* 1999;64(6):430-35.
5. Westphal LM, Polan ML, Trant AS. Double-blind, placebo-controlled study of Fertilityblend: a nutritional supplement for improving fertility in women. *Clin Exp Obstet Gynecol* 2006;33(4):205-8.
6. Song GJ, Norkus EP, Lewis V. Relationship between seminal ascorbic acid and sperm DNA integrity in infertile men. *Int J Androl* 2006;29(6):569-75.
7. Mostafa T, Tawadrous G, Roaia MM, et al. Effect of Smoking on Seminal Plasma ascorbic acid in infertile and fertile males. *Andrologia* 2006;38(6):221-24.
8. Mancini A, De Marinis L, Littarry GP, et al. An update of CoQ10 implications in male infertility: biochemical and therapeutic aspects. *Biofactors* 2005;25(1-4):165-74.
9. Balercia G, et al. CoQ10 Supplementation in infertile men with idiopathic asthenozoospermia: an open, uncontrolled pilot study. *Fertil Steril* 2004;81(1):93-98.
10. Lenzi A, et al. Use of Carnitine in selected cases of male factor infertility: a double blind cross over trial. *Fert Steril* 2003;79(2):292-300.
11. Balercia G, Regoli F, et al. Placebo controlled double blind randomized trial on the use of L-carnitine, L-acetylcarnitine, or combined L-carnitine and L-acetylcarnitine in men with idiopathic asthenozoospermia. *Fertil Steril* 2005;84(3):662-71.
12. Garolla A, Maiorino M, et al. Oral carnitine supplementation increases sperm motility in asthenozoospermic men with normal sperm phospholipid hydroperoxide glutathione levels. *Fert Steril* 2005;83(2):355-61.
13. Westphal LM, Polan ML, et al. A nutritional supplement for improving fertility in women: a pilot study. *J Reprod Med* 2004;49(4):289-93.
14. Wilcox A, Weinberg C, et al. Caffeinated beverages and decreased fertility. *Lancet* 1988;2(8626-8627):1453-6.
15. Lydic ML, McNurlan M, et al. Chromium picolinate improves insulin sensitivity in obese subjects with PCOS. *Fert Steril* 2006;86(1):243-46.
16. Muneyyirci-Delale O, Nacharaju VL, et al. Divalent cations in women with PCOS: implications for cardiovascular disease. *Gynecol Endocrinol* 2001;15(3):198-201.
17. Fenkci V, Fenkci S, et al. Decreased total antioxidant status and increased oxidative stress in women with PCOS may contribute to the risk of cardiovascular disease. *Fertil Steril* 2003;80(1):123-27.
18. Scheen AJ. Perspective in the treatment of insulin resistance. *Hum Reprod* 1997 Oct;12 Suppl 1:63-71.
19. Wong WY, Merkus HM, et al. Effects of folic acid and zinc sulfate on male factor subfertility: a double blind randomized placebo controlled trial. *Fertil Steril* 2002;77(3):491-98.
20. Martin I, Gibert MJ, et al. Oxidative stress in mothers who have conceived fetus with neural tube defects: the role of aminothiols and selenium. *Clin Nutr* 2004;23:507-14.
21. Makhoul IR, Sammour RN, et al. Selenium concentrations in maternal and umbilical cord blood at 24-42 weeks of gestation: basis for optimization of selenium supplementation to premature infants. *Clin Nutr* 2004;23:373-81.
22. Nelen WLDM, Blom HJ, et al. Homocysteine and folate levels as risk factors for recurrent early pregnancy loss. *Obstet Gynecol* 2000;95:519-24.
23. Ronnenberg AG, Goldman MB, et al. Preconception Folate and vitamin B6 status and clinical spontaneous abortion in Chinese women. *Obstet Gynecol* 2002;109:107-13.
24. Tamara T, Picciano MF. Folate and Human reproduction. *Am J Clin Nutr* 2006;83:993-1016.
25. Beemster P, Groenen P, et al. Involvement of Inositol in Reproduction. *Nutr Rev* 2002;60(3):80-87.
26. Shils ME, et al, ed. **Modern Nutrition in Health and Disease 9th Edition**. Lippincott Williams & Wilkins, 1999.