

Vitamins and Nutraceuticals During Pregnancy

According to the American College of Obstetricians and Gynecologists (ACOG), it is advisable to take one prenatal vitamin a day. This typically includes:

Vitamin C (80 mg for ages 14-18, 85 mg for ages 19-50)	Calcium (1300 mg for ages 14-18, 1000 mg for ages 19-50)	Iron 27 mg	Iodine 220 mg	Choline 450 mg
Vitamin A (750 mg for ages 14-18, 770 mg for ages 19-50)	Vitamin D3 400-600 units	B6 1.9 mg	B12 2.6 mg	Folic Acid 600 mg

Besides those listed above, ACOG does not explicitly say whether or not it is safe to take herbal or other dietary supplements such as the ones listed in FLCCC protocols.^[1] Supplements such as B1 (1.4 mg), B2 (1.4 mg), B3 (18-35mg), and zinc (11-13 mg) are recommended by the American Pregnancy Association.^[2]

Magnesium supplementation during pregnancy may reduce fetal growth restriction and pre-eclampsia and increase birthweight.^[3] (See below for dosing.) The need for magnesium increases during pregnancy, and most pregnant women likely do not meet this increased need.^[4] Magnesium deficiency or insufficiency during pregnancy may pose a health risk for both the mother and the newborn, with implications that may extend into adulthood of the offspring.

Safety of melatonin and other supplements listed on the FLCCC protocols in pregnant women

Safe Supplements

Vitamin C, D3, zinc, and B complex Taken within recommended daily dose, are considered safe in pregnancy since they are part of recommended prenatal vitamin supplementations.	Magnesium and Omega-3 fatty acids (mercury-free source): Safe and Beneficial A daily dose of 300-400 mg magnesium is safe and beneficial in pregnancy. ^[3,4] Data derived from observational studies have found that omega-3 fatty acid consumption during pregnancy either in the diet or via supplements is associated with improved neurodevelopmental outcomes in the child. ^[5]	N-acetyl cysteine (600 mg daily) appears to be safe in pregnancy. ^[6,7]
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Undetermined Supplements

Melatonin, Curcumin and Resveratrol: No evidence to support reproductive safety in humans.

Melatonin

Clinical evidence on melatonin use in pregnancy is scarce, and most studies have been done on animals and in vivo. Even though a few clinical studies on pregnant women show melatonin as being risk-free, when considering the extensive and not yet known effects on fetal development, it should not be used by pregnant women before further studies.^[8-11]

Curcumin and Resveratrol

Although the safety of Curcumin and Resveratrol have been proven with no adverse effects on reproductive performance or embryos in animal models, there is a lack of human data to demonstrate their safety and efficacy in gestational women.^[12]

Spermidine

No human data is found for spermidine use during pregnancy.
^[13] The serum level of spermidine is increased during a normal pregnancy.
^[14] Without evidence showing the safety and therapeutic use of spermidine during pregnancy, spermidine should not be recommended for this population.

Supplements to avoid

Quercetin

Should be avoided in pregnancy. No human studies have been found on quercetin. There have been a few studies done on animals and molecular docking with controversial findings, and a couple of them are concerning.^[15] A study in mice suggested that prenatal quercetin exposure results in epigenetic changes and increased iron storage in the liver in adulthood.^[16] In another study, prenatal exposure to quercetin was linked to increased cancer risk.^[17]

Nigella sativa

Should be avoided in pregnancy. Nigella sativa should be avoided during pregnancy because it can stimulate menstruation and has been used as a contraceptive.^[18;19]

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