



**Medical
Blueprints**

PREGNANT DURING COVID: PROTECT YOURSELF AND YOUR BABY REPORT #2804

BACKGROUND: Health care during pregnancy is known as prenatal care, which helps you have a healthier baby. It also lowers the risk of your baby being born too early leading to health problems. During prenatal care, your doctor or midwife can find any health problems that may come up. A midwife is a health professional who provides prenatal care during pregnancy and helps women during childbirth. To keep both mother and baby healthy, it's important to not smoke or drink alcohol; eat healthy foods and get enough folic acid; and stay physically active. Eating a nutritious diet during pregnancy is linked to good brain development and a healthy birth weight and can reduce the risk of many birth defects. A balanced diet will also reduce the risks of anemia, as well as other pregnancy symptoms such as fatigue and morning sickness.

(Source: <https://health.gov/myhealthfinder/topics/pregnancy/doctor-and-midwife-visits/have-healthy-pregnancy> and <https://www.healthline.com/health/pregnancy/healthy-pregnancy#nutrition>)

PREGNANCY AND CHOLINE: In 2017, the American Medical Association recognized the importance of choline for pregnancy and suggested pregnant women take prenatal vitamins with choline. The following year, the American Academy of Pediatrics acknowledged choline as a “brain-building” nutrient and urged pediatricians to make sure pregnant women were getting enough choline during pregnancy and that children were also nourished with this nutrient. Choline deficiency during the first 1,000 days after birth could lead to lifelong problems with brain function. Therefore, taking a choline supplement in pregnancy can support a healthy brain. Pregnant women and women in their childbearing years are often deficient in choline. Foods like meat, eggs, fish, and dairy are rich sources of choline, so vegans and vegetarians are often not getting enough. Menopausal women may also need more choline because estrogen levels drop, and estrogen increases the activity of the gene involved in the body's production of choline.

(Source: <https://www.vitalnutrients.net/blog/choline-for-pregnancy-and-beyond/>)

EFFECTS OF CHOLINE ON BRAIN DEVELOPMENT: A team led by Robert Freedman, MD, and M. Camille Hoffman, MD, both of the University of Colorado Denver School of Medicine, researched the levels of choline in the plasma of mothers with second trimester infections and whether it affected brain development and early postnatal indicators of brain function in their newborns? It initially revealed that infected women with higher levels of choline in the plasma would have babies that performed better in two key areas of brain function compared with babies of infected mothers whose choline levels were lower during pregnancy. The team noted that prenatal vitamins currently contain as little as 10mg, which is a small fraction of the 900mg suggested in addition to the recommended dietary intake of 550mg. Dr. Freedman also noted that infections during pregnancy, including the flu and respiratory illness, can happen to any woman, and these infections predispose the offspring to future mental illness. Choline supplementation offers a way for mothers to protect their unborn children from this unpreventable risk.

(Source: <https://www.bbrfoundation.org/content/higher-maternal-choline-levels-pregnancy-had-protective-role-infant-brain-development>)

✉ **For More Information, Contact:**

Julia Milzer, Media Relations & Marketing Manager
Julia.milzer@cuanschutz.edu

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