Nutrition in Pregnancy

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Vit.D

- **ACOG** recommends testing only **pregnant** women who are at increased risk of **vitamin D** deficiency (e.g., women with limited sun exposure, women with darker skin that limits absorption of **vitamin D**).

- If a woman's **vitamin D** levels are 20 ng per mL , there is no bone problem.

Vit.D

- The recommended target range for nonpregnant adults is 32–100 ng/mL , which appears to be a safe range during **pregnancy**. ...

- However, a previous study has shown that prenatal supplements that contain 400 IU of **vitamin D** are not adequate to achieve normal **vitamin D levels** in **pregnant** women or their infants

Vit.D

- Does Vitamin D Help Prevent Miscarriage?
- The findings add to earlier studies which had suggested higher levels of the **vitamin D** were beneficial in women undergoing IVF.
- Women not receiving enough **vitamin D** take longer to get pregnant **and** may even increase their risk of having a **miscarriage**

Vit.D

- How much vitamin D should I take in pregnancy?

- All **pregnant** and breastfeeding women **should** also get the recommended amount of 600 IU per day of **vitamin D**.

- But there is some evidence that shows **pregnant** women may need doses as high as 1000 IU per day to maintain a healthy **pregnancy**.

Vit.D

- Can vitamin D cause birth defects?

- **Vitamin D** deficiency during pregnancy is common worldwide, researchers note in JAMA Pediatrics. ... They didn't find a meaningful difference in **birth defects** based on whether mothers took **vitamin D** during pregnancy.
- They also didn't find any link between prenatal **vitamin D** supplementation and babies' risk of asthma.May 29, 2018

- Does lack of vitamin D cause autism?
- Higher serum concentrations of this steroid may reduce the risk of **autism**. Importantly, children with ASD are at an increased risk of **vitamin D deficiency**, possibly due to environmental factors.

- It has also been suggested that **vitamin** D3 **deficiency** may **cause** ASD symptoms.

Prepregnancy Nutrition and Early Pregnancy Outcomes

- To date, there is limited evidence to support associations of prepregnancy vitamin D and caffeine intake with pregnancy loss.

- There is suggestive data supporting a link between a healthy diet and lower risk of pregnancy loss. Audrey J. Gaskins 2015

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- To date, three studies found no association between early pregnancy concentrations of serum 25(OH)D and risk of miscarriage.

Vit.D

- Seasonal variation in vitamin D levels has been one of specific interest since the majority of evidence points to reduced ovulation rates and endometrial receptivity during long, dark winters (when vitamin D levels are low) and peaked rates of conception and multiple pregnancy rates during summer (when vitamin D levels are highest) Curr Nutr Rep.2015

Caffeine

- Due to conflicting conclusions from numerous studies, the March of Dimes states that until more conclusive studies are done, **pregnant** women should limit **caffeine** intake to less than 200 mg per day. 2018

Caffeine

- Reports link heavy intake of five cups of coffee per day - about 500 mg of caffeine-with a slightly greater abortion risk. Moderate intake- less than 200mg daily did not indicate increased risk. Williams 2018

Iodine

- The US recommended daily allowances (RDA) for **iodine** intake are 150 µg in adults, 220 to 250 µg in **pregnant** women, and 250 to 290 µg in breastfeeding women. ... In such instances, patients should be monitored for **iodine**-induced thyroid dysfunction.

Iodine

- How often should thyroid levels be checked during pregnancy?
- Thyroid function tests should be checked approximately every **6-8** weeks during pregnancy to ensure that the woman has normal thyroid function throughout pregnancy. If a change in levothyroxine dose is required, thyroid tests should be measured 4 weeks later.

Fish intake

- ACOG encourages pregnant women, women who may become pregnant, and breastfeeding mothers to follow the FDA revised advice to:
- Eat 2-3 servings a week (8 to 12 ounces in total) of a variety of fish .
- Eat only 1 serving a week (no more than 6 ounces) of some fish, such as albacore (white) tuna and fish with similar mercury concentrations to albacore (white) tuna ;
- Avoid certain fish with the highest mercury concentration.

Cooked food

- Although not mentioned in the revised 2017 advice, it is important that pregnant women avoid all raw and undercooked seafood, eggs, and meat for avoidace of listeriosis and toxoplasmosis.

Fresh food

- A case-control study from Italy found a higher risk of spontaneous early miscarriage with lower intake of green vegetables, fruit, and dairy products coupled with a higher intake of fat . Similarly, a population-based case-control study from the UK found that lower intake of fresh fruit and vegetables, dairy, and chocolate was associated with increased odds of spontaneous abortion.

Folic acid

- Before **pregnancy** and during **pregnancy**, you need 400 micrograms of **folic acid** daily to help prevent major birth defects of the fetal brain and spine called neural tube defects. Current dietary **guidelines** recommend that **pregnant** women get at least 600 micrograms of **folic acid** daily from all sources.

Folic acid

- Is 5mg of folic acid too much when pregnant?
- Some women will be advised to take a higher dose of 5 milligrams (**5mg) of folic acid** each day until they're 12 weeks **pregnant** if they have a higher risk of having a **pregnancy** affected by neural tube defects.

Folic acid

- **Is too much folic acid during pregnancy** a contributor to autism? Pregnant women are often encouraged to supplement their **folic acid** intake to prevent birth defects, but **too much** may also carry risks, according to a new study which links **excessive folate** and vitamin B12 to a greater risk of autism in the child.

Folic acid

- Is 1000 mcg of folic acid too much during pregnancy?
- Yet, for most women, consuming more than **1,000 mcg of folic acid** daily is of no benefit.

Folic acid

- When should I stop taking folic acid during pregnancy?
- **Folic acid** before and during **pregnancy**. You should **take** a 400 micrograms **folic acid** tablet every day while you are trying to get **pregnant** and until you are 12 weeks **pregnant**.

Folic acid

- When should I take folic acid morning or night?
- **How to take folic acid**

1. Take folic acid at the same time each day, either in the morning OR in the evening.

Folic acid

- High folate and minimal to no alcohol intake prior to conception have the most consistent evidence supporting an association with lower risk of pregnancy loss.

Folic acid

- While the literature from IVF cohorts and basic science suggest that most of folate's beneficial effects may be on supporting the exponential increase in DNA synthesis that occurs during early embryo development, corroborating evidence from natural pregnancies which focused on later pregnancy losses suggest that folate's beneficial effects could extend throughout gestation.

ACOG guidelines for omega3

- **Pregnant women should** be sure to **take** a daily supplement that provides a minimum of 300 mg of DHA at the very least. The official **omega-3** of the American**Pregnancy** Association is Nordic Naturals' Prenatal DHA, which provides 480 mg DHA and 205 mg of EPA per serving (2 soft gels).

Fish oil

- Should I take fish oil while pregnant?

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- Is it safe to **take fish oil** or other omega-3 supplements **during pregnancy**? Yes.

- In fact, if you're not eating fatty **fish** like salmon or sardines once or twice a week, **taking** a daily omega-3 supplement might be a good idea.

- **ACOG recommends** pregnant and lactating women should aim for an average **daily intake** of at least 200 mg docosahexaenoic acid (**DHA**) a day in addition to their prenatal vitamins.

Omega 3

- **EPA** (eicosapentaenoic acid) and DHA (docosahexaenoic acid) are the two principal omega-3 fatty acids.

- The body has a limited ability to manufacture **EPA** and DHA by converting the essential fatty acid, alpha-linolenic acid (ALA) which is found in flaxseed oil, canola oil or walnuts.


THANK YOU
FOR YOUR ATTENTION