Dietary Supplements During Pregnancy

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ABSTRACT

In this column, the author addresses the use of dietary supplements and prenatal vitamins during pregnancy.

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The Dietary Supplement Health and Education Act of 1994 (<http://www.fda.gov/opacom/laws/dshea.html>) established the Office of Dietary Supplements (ODS). More information on government-sponsored supplement projects can be found at the ODS Web site (<http://dietary-supplements.info.nih.gov/>).

READER'S QUESTION

What are the most important things to tell the couples in my childbirth education class about dietary supplements? I have found that quite a few of them are taking over-the-counter dietary supplements in addition to prenatal vitamins. Some of these are supplements I have never heard of.

– Childbirth Educator in Pennsylvania

COLUMNIST'S REPLY

The first thing consumers need to know is what constitutes a dietary supplement. As defined by the U.S. Congress in the Dietary Supplement Health and Education Act (DSHEA), which became law in 1994, a dietary supplement is a product (other than tobacco) that

- is intended to supplement the diet;
- contains one or more dietary ingredients (including vitamins, minerals, herbs or other botanicals, amino acids, and other substances) or their constituents;

- is intended to be taken by mouth as a pill, capsule, tablet, or liquid; and
- is labeled on the front panel as being a dietary supplement.

Dietary ingredients used in dietary supplements are not subject to the premarket safety evaluations required of new food ingredients, new uses of old food ingredients, or medications. Although the DSHEA does give the U.S. Food and Drug Administration (FDA) the right to ban harmful dietary supplements, the burden of proof is on the FDA. This requirement is the opposite of what consumers expect with medications, where the industry must prove effectiveness and safety. It also means that, unlike regulated medications, no mandatory system exists for reporting the harmful effects of dietary supplements.

Vitamins

Encourage participants in your childbirth education class to take supplements prescribed by their health-care providers. They should not take any single vitamin or mineral supplements in higher-than-normal doses unless recommended by a health-care provider for a special condition. Also, inform class

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participants that higher-than-normal doses of the fat-soluble vitamins can be toxic. Fat-soluble vitamins include vitamins A, D, E, and K. Large doses of retinol (vitamin A) are known to cause birth defects in animals. It is safest to urge expectant mothers to take only their prenatal vitamins and no other over-the-counter vitamin supplements. That way, they do not have to remember which ones can be toxic or risk an accidental overdose on a vitamin.

Herbs and Other Supplements

Advise your perinatal educator colleagues to strongly discourage all pregnant women from taking herbal products or any other supplements (except their prenatal vitamins). Why? “Unregulated” refers to more than the testing of effectiveness and side effects of an ingredient. Manufacturing plants and the practices surrounding the production and packaging of these products are not regulated by the industry or the government. That means the concentration or dosage of ingredients in different products, and what contaminants are in the product, are unknown. Additionally, known and unknown effects of herbal products can be dangerous to the pregnant woman and to her developing fetus. Studies of safety are not conducted on pregnant and lactating women. Therefore, without specific directions from their health-care provider, expectant parents are advised to avoid the use of herbal products during pregnancy and lactation.

Caffeine

Caffeine crosses the placenta and affects the fetus. Caffeine is also passed on to the breastfed infant through the mother’s milk. Please encourage the pregnant women in your class to avoid (or at least minimize) their consumption of caffeine. Most mothers know that coffee, tea, energy drinks, and some soft drinks contain caffeine, but it is also a hidden ingredient in many products. Dietary supplement ingredients that contain caffeine include

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guarana, yerba mate, kola or kola nut, cocoa, tea, coffee or coffee beans, and citrus aurantium or bitter orange. (Some of this is new information that even most dietitians may not know.) These ingredients and the products containing them should be avoided during pregnancy. Again, rather than remembering this long, strange list, mothers really should avoid supplements other than prenatal vitamins during pregnancy and lactation.

Good Manufacturing Practices

Finally, when discussing the postpartum period and life changes after the child is born, advise your class participants that if they choose to use supplements after pregnancy and lactation, they should look for products that state they use Good Manufacturing Practices (GMP) for increased assurance of quality composition.

NOTE TO READERS

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