

MONTHLY MEMO:

SUPPLEMENTS, DRUG INTERACTIONS, AND WOMEN'S HEALTH

Overview

This memo provides an in-depth exploration of supplements, drug interactions, and their impact on women's health, covering topics such as natural supplements, birth control interactions, and alcohol's effects on medications. It highlights the importance of understanding potential risks, consulting healthcare professionals, and using evidence-based information to make safer health decisions.

Natural Supplements

Many women gravitate toward dietary supplements, attracted by claims of naturalness and safety. However, the term "natural" is not synonymous with "risk-free." Supplements are regulated by the FDA as foods, not drugs, meaning they can be sold without proving safety or effectiveness beforehand. This regulatory gap can lead to contamination, inconsistencies in active ingredient levels, and inadequate warnings about potential interactions.

Drug-supplement interactions are a growing concern, especially for women managing chronic conditions or taking medications like birth control or antidepressants. For instance, St. John's Wort, used for mood support, can reduce the efficacy of oral contraceptives and antidepressants. Ginkgo biloba, marketed for cognitive health, can increase bleeding risk with anticoagulants like warfarin. Most Americans meet nutritional needs through diet, with deficiencies like vitamin D and calcium being exceptions. High doses of supplements can impair nutrient absorption; for example, calcium can reduce thyroid medication effectiveness. The misconception that supplements are inherently safe can delay medical care, particularly risky during pregnancy or for individuals with autoimmune diseases, where unregulated supplements can worsen conditions or harm fetal development.

Vitamin Interactions with Birth Control

A common misconception is that biotin interacts with birth control, leading to negative side effects. However, no scientific evidence supports this claim. Certain vitamins can be affected by birth control use. Women taking birth control pills may experience deficiencies in vitamins B6, B12, and B9, while iron levels often increase. For most, additional iron supplementation is unnecessary unless a deficiency is diagnosed, as excess iron can accumulate in the blood. The same applies to vitamin A. High doses of vitamin C can raise estrogen levels in the body when combined with birth control. While this doesn't reduce the pill's effectiveness, it may diminish the benefits of vitamin C in individuals with deficiencies. Similarly, birth control can lower vitamin B12 levels without affecting its effectiveness. Interestingly, individuals on birth control may require less dietary niacin.

Drug Interactions with Birth Control

The combination birth control pill typically contains estrogen and progesterone. However, these hormone levels can alter the effectiveness of certain medications. While many drugs don't interact with oral contraceptives, it's important to be aware of potential interactions with daily medications.

A key class of drugs known to interact with combined hormonal contraceptives (CHCs) is anti-epileptic drugs (AEDs). Common AEDs like carbamazepine, phenytoin, and topiramate can reduce the effectiveness of CHCs. Conversely, lamotrigine, another AED, has its effectiveness reduced by CHCs. Notably, AEDs are often prescribed for conditions beyond seizures.

Anti-HIV drugs, specifically antiretrovirals (ARVs), may also interact with CHCs. Research shows efavirenz can decrease CHC effectiveness, and ongoing studies are examining other potential interactions. Some antibiotics, like rifampin, used to treat tuberculosis, can also reduce CHC efficacy, requiring alternative contraception during treatment.

To avoid drug interactions, consult a doctor before starting new medications or supplements. Read prescription instructions carefully, exercise caution, and seek professional guidance when in doubt.

Vitamins That Do Not Impact the Function of Birth Control:

Vitamin D
Biotin (B7)
Thiamine (B1)
Vitamin B12
Vitamin C
Niacin
Riboflavin (B2)
Vitamin A

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Medications and Alcohol Consumption

Combining alcohol with medications can cause severe health risks by altering how drugs work in the body.

Enhanced Side Effects: Alcohol can intensify side effects of antidepressants, antihistamines, and opioids, leading to dizziness, drowsiness, slowed breathing, or overdose. Even over-the-counter drugs and antibiotics may interact dangerously.

Organ Damage: Mixing alcohol with pain relievers like acetaminophen or NSAIDs can cause liver damage and gastrointestinal bleeding. Women, due to their lower body water content, are more vulnerable to alcohol-related liver damage.

Heart Risks: Alcohol with heartburn or blood pressure medications can cause blood pressure drops, fainting, or irregular heartbeats, straining the cardiovascular system.

Reduced Medication Effectiveness: Alcohol can reduce the efficacy of medications like antidepressants and antibiotics, prolonging symptoms or illnesses.

Safety Tip: Always check medication labels and consult your healthcare provider about alcohol interactions.

Birth Control: Food & Drink Choices

Oral contraceptives can interact with certain foods and drink like:

- **Caffeine:** Birth control slows caffeine metabolism due to increased progesterone and estrogen, causing caffeine to stay in the system longer. Occasional coffee consumption is typically fine, but daily or excessive intake may lead to jitteriness, nausea, anxiety, sleep issues, and heart palpitations. Prolonged interactions may pose cardiovascular risks.
- **Grapefruit:** Grapefruit juice prevents the breakdown of estrogen, raising its levels. This can reduce birth control effectiveness and increase side effects like nausea, breast tenderness, high blood pressure, and uterine bleeding.
- **High-fat Diet:** High-fat or high-calorie diets can worsen the risk of blood clots, oxidative stress, and cardiovascular issues associated with birth control. Long-term pairing may also harm fertility and increase the risk of ovarian failure. Maintaining a healthy diet is essential while using oral contraceptives.

Important foods to consume while on birth control include calcium-rich options (milk, yogurt, cheese) to prevent bone weakness, iron-rich foods (spinach, kale, poultry, fish) to combat anemia and support blood clotting, and folic acid sources (green vegetables, beans, orange juice) to prepare for pregnancy and prevent birth defects.



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