

7 Myths About Prenatal Vitamins

By George Fox and Evelyn Ojeda Fox

Myth #1: All vitamins are created equal.

FACTS:

- **Not True.** [In a study of prescription prenatal vitamins](#) only 3 out of 9 prescription prenatal vitamins were found to release the amount of **folic acid** they claimed to contain. This means that even though they contained the folic acid, the body didn't absorb it.

Folic acid is a B vitamin that helps prevent serious birth defects of a baby's brain or spine. Getting enough folic acid can also help prevent birth defects like cleft lip and congenital heart disease. These birth defects often happen before most women know they are pregnant. Folic acid is important for any woman who could become pregnant.

- Approximately 25% of supplements could be **contaminated** with banned substances (steroids, stimulants, etc.). For more details, you can visit the [Informed Choice's Website](#). This is a non-profit organization that certifies products to be clean and free of banned substances.
 - Over 30% of multivitamins recently selected for testing by [ConsumerLab.com](#) were found to contain significantly more or less of an ingredient than claimed or were contaminated with lead. In addition, several products (including three for children) exceeded tolerable upper limits established by the Institute of Medicine for ingredients such as vitamin A, folic acid, niacin and zinc.
-

Myth #2: I can meet all my nutritional supplementation needs with my prenatal vitamins.

FACTS:

- **Not True.** Most prenatal vitamins do not have a full-range of minerals and they also lack in the **proper amount and availability** of many important nutrients.
- **CALCIUM:** Most prenatal vitamins contain between 100 and 200 milligrams (mg) of calcium, but some don't contain any. [Studies show](#) that pregnant women who took 1,500 to 2,000 milligrams of daily calcium supplements can reduce their chances of developing **high blood pressure and preeclampsia** by 60-70 percent.
- **ESSENTIAL FATTY ACIDS:** Most prenatal vitamins do not contain **essential fatty acids**. DHA, an omega-3 fatty acid, is important for the development of your baby's brain, nerve, and eye tissue. The developing fetus depends entirely on its mother's DHA intake for its own supply of this vital **brain nutrient**. During the third trimester, the fetus is estimated to accumulate 67 mg per day of DHA.

Studies demonstrate that mothers who take DHA supplements have **fewer preterm** deliveries and give birth to larger, healthier infants who perform better on **intelligence** and **visual perception** tests to the **age of at least four years**.

Essential fatty acids (Omega-3) are important to prevent depression.

- **VITAMIN D:** [A study reported in the February, 2007 Journal of Nutrition](#) concluded that the majority of African-American women and almost half of Caucasian women have deficient levels of **vitamin D**, as do most of their infants, even though **90%** of the women used **prenatal supplements during pregnancy**.

The study illuminates the danger of assuming that prenatal vitamins in their present form are ensuring vitamin D sufficiency in pregnant women and their newborns.

Vitamin D deficiency during pregnancy is associated with **five times** higher risk of preeclampsia. **Preeclampsia** is a complication of pregnancy characterized by hypertension and swelling of the extremities, and is the leading cause of maternal and fetal death. [Journal of Clinical Endocrinology and Metabolism](#)

Vitamin D researcher Michael Holick, MD, PhD, and colleagues report that women in their study who were severely vitamin D deficient during childbirth were about [four times more likely to deliver by cesarean section](#) as women with higher vitamin D levels. Vitamin D deficiency has been associated with muscle weakness and high blood pressure, which might help explain the finding. They recommend 1,400 IU per day.

- **IODINE:** Many brands of multivitamins for pregnant women may not contain all the **iodine** they claim, potentially putting babies at risk of **poor brain development**.

[Tests on 60 brands that listed iodine as an ingredient on their labels found many fell short of the stated amount.](#) Prenatal multivitamins that use **potassium iodide** as the iodine source give a more **consistent dose** of the element than those that use kelp.

Iodine deficiency is the leading preventable cause of mental retardation worldwide, affecting more than 2.2 billion people. Only 51% of prenatal vitamins marketed in the United States even listed iodine as an ingredient on the label.

The World Health Organization recommends 250 micrograms per day during pregnancy and lactation.

Myth #3: If I eat a healthy diet, I don't need to take supplements.

FACTS:

- **Ideally True.** Supplements are not a substitute for a healthy diet, yet more than 80% of Americans do not eat the daily food required for optimal health.
- The USDA surveyed 16,000 Americans and found that not one person obtained 100% of essential nutrients such as magnesium, vitamin E, and zinc.

- [The Journal of the American Medical Association \(JAMA\)](#) recommended in June 2002 that given that most people do not consume an optimal amount of nutrients by diet alone it would be prudent for all adults to take vitamin supplements to prevent chronic disease.
-

Myth #4: I need to start my vitamin supplements AFTER I get pregnant.

FACTS:

- **Not True.** According to Specialist in Nutritional Medicine, Raymond D. Strand, M.D., it takes a minimum of **6 months** of proper nutritional supplementation to optimize the body's natural defenses.
 - Many conditions can be prevented with adequate early supplementation such as the fetus developing neural tube defects (such as spina bifida), congenital heart disease, cleft palate, prematurity and **even c-section**.
 - The Center for Disease Control (CDC) recommends that a woman needs to take **follic acid** every day, starting before she becomes pregnant. Taken this way, folic acid could **prevent 70%** of some types of serious birth defects.
 - In the first 12 weeks of pregnancy, the fetus relies on its mother directly for thyroid hormone. After that, it uses iodine from the mother to make its own.
-

Myth #5: I will need a prescription prenatal vitamin when I get pregnant.

FACTS:

- **Not True.** There are multivitamins that can be a good prenatal vitamin because they contain adequate amounts of **follic acid, zinc, iodine** and other important vitamins and minerals which are needed in higher levels during pregnancy.
 - What is more important are the ingredients in the vitamins and how well they absorb into your body. Many times prescriptions are written so that the cost of the vitamins will be picked up by insurance companies without taking into account the quality of the product.
-

Myth #6: Natural and synthetic vitamins work just as well.

FACTS:

- **Not True.** For instance, [research has shown that natural vitamin E](#) is better retained and more biologically active than synthetic.

The study found that the human placenta can deliver natural vitamin E to the fetus significantly more efficiently than synthetic vitamin E.

Studies have shown that vitamin E helps premature babies fight off oxidative stress damage to the heart, lungs and eyes and defend against destruction of red blood cells that can lead to anemia.

To identify the kind of vitamin E in a supplement, read the label. Natural vitamin E begins with "d" as in "d-alpha-tocopherol". The synthetic version begins with "dl" "dl-alpha-tocopherol".

Synthetic vitamin E is a petroleum by-product less expensive and less bio-available than the natural vitamin E.

Myth #7: The father's health and lifestyle do not affect conception or the baby's health.

FACTS:

- **Not True:** Healthy Male = Healthy Sperm = Healthy Fetus = Healthy Child
- It takes 100 days for sperm to develop (74 to form and 20-30 to mature), therefore addressing sperm health concerns 100 days before conception is important.
- **Zinc** is one of the major constituents of sperm. 75% of men who experience prostate problems have a zinc deficiency.
- **Folic acid** is especially important during the 100 day run up to conception. [Researchers](#) have found that low levels of **folic acid** correlate with decreased sperm count and low sperm density.

The same study indicates that a lack of **folic acid** is likely to show chromosome damage in the sperm which may contribute to an increased risk of **childhood cancer**.

Sperm levels of chromosomal abnormalities can have a number of consequences ranging from failure to conceive, **miscarriages** or children born with conditions such as Down's syndrome. - [Human Reproduction Medicine Journal \(March 20, 2008\)](#)

- **Essential fatty acid (Omega-3)** - semen is rich in prostaglandins which are produced from these fats. Men with poor sperm quality, abnormal sperm, poor motility or low count, generally have inadequate levels of beneficial EFAs or prostaglandins.
- **Selenium** is an antioxidant that helps to protect your body, your sperm and the woman's eggs from free radicals. Low selenium in the blood is associated with low sperm counts. By protecting against free radicals selenium can prevent chromosome breakage, which is known to be a cause of **birth defects** and **miscarriages**.
- **B12** deficiency has been linked with anemia, low sperm count, and malformed sperm. B12 supplements are sometimes prescribed for men with fertility problems.
- **Vitamin E**, another powerful antioxidant, increases fertility for both men and women. It may make the sperm themselves more fertile. Vitamin E given to men who are going for **IVF treatment** with their partners causes a 10% rise in the couple's overall fertility.
- **Vitamin C** enhances sperm quality, protecting sperm and the DNA within it from damage.
- **Alcohol** affects the male user's sexual performance, causes problems with fertility, miscarriage, and the maturation of the fetus and newborn.

- **Smoking** has been shown to affect the sperm. The deformed sperm are more likely to cause **miscarriage** and problems for the fetus. Smoking half a pack or more a day has been shown to reduce sperm count by as much as **twenty percent**.
- A report by the [Oxford Survey of Childhood Cancers](#) concludes that about 14% of all childhood cancers in this review could be attributable to paternal smoking.
- [A study published in the European Journal of Cancer Prevention](#), found that fathers who smoked more than 20 cigarettes a day had an increased risk of having a baby with a Central Nervous System (CNS) tumor. Researchers say this finding was not restricted to smoking during the pregnancy, but that "results suggest paternal smoking during the **year prior to birth**, including the **pre-conception period and pregnancy**, may play a role in childhood CNS tumors."

Tips on How to Select the Right Supplement For You and Your Family

Awareness

Education

Personal Responsibility

Action

✓ **POTENCY: Does the dietary supplement contain ingredients in the amounts stated on the label?**

- Look for manufactures who meet the specifications for potency, uniformity, and disintegration set by independent organizations such as the United States Pharmacopeia (USP) and the NSF International, The Public Health and Safety Company.
- Look for a dietary supplement that carries a potency guarantee, which ensures that what is stated on the label is actually contained in the product.

✓ **PURITY: Has the product been tested for harmful levels of contaminants?**

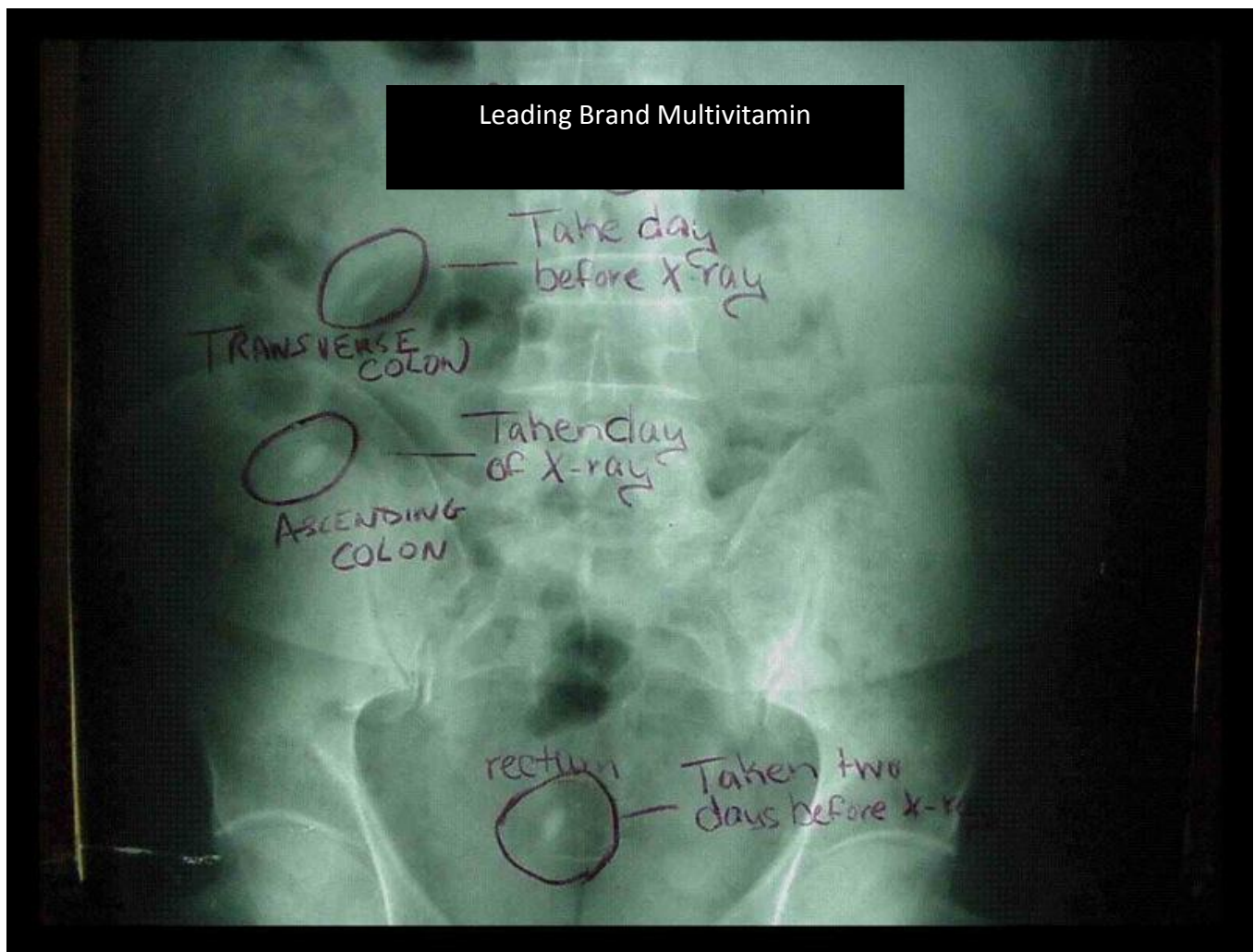
- Random off-the-shelf tests by USP and other laboratories have shown that some supplements may contain lead, mercury, other heavy metals, pesticides, bacteria, molds, toxins and other potentially harmful contaminants.
- Approximately 25% of supplements could be contaminated with banned substances (steroids, stimulants, etc.). For more details, you can visit the [Informed Choice's Website](#). This non-profit organization certifies products to be clean and free of banned substances.
- Over 30% of multivitamins recently selected for testing by [ConsumerLab.com](#) were found to contain significantly more or less of an ingredient than claimed or were contaminated with lead. In addition, several products (including three for children) exceeded tolerable upper

limits established by the Institute of Medicine for ingredients such as vitamin A, folic acid, niacin and zinc.

- Make sure your supplement meets recognized standards for purity and potency, such as those compiled by the United States Pharmacopeia (USP).

✓ **DISSOLUTION: Will the ingredients release and dissolve so they are available for the body to absorb?**

- If a supplement does not break down properly to allow the ingredients to dissolve in the body, you will not receive the full benefits from its content.
- In a study of prescription prenatal vitamins conducted by the University of Maryland at Baltimore, School of Pharmacy, only 3 out of 9 prescription prenatal vitamins were found to release the amount of folic acid that they claimed to contain.
- Here is an x-ray of a popular multi-vitamin. What good is this product doing your body when the vitamin does not dissolve?



✓ **BIOAVAILABILITY: Is the product in a form that your body can use?**

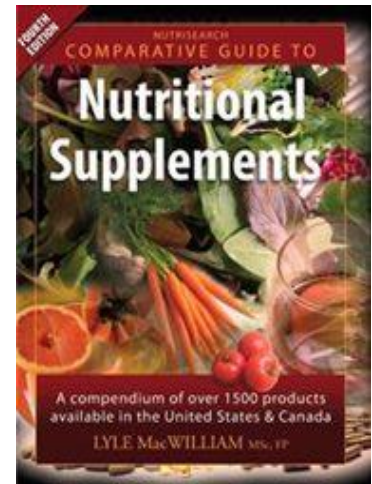
- For instance, research has shown that natural vitamin E (d-alpha-tocopherol) is better retained and more biologically active than synthetic vitamin E (dl-alpha-tocopherol). The human placenta can deliver natural vitamin E to the fetus significantly more efficiently than synthetic vitamin E.
 - **Toxicities of vitamin A relate only to pre-formed vitamin A**, usually labeled as retinol, retinyl acetate, or retinyl palmitate. Beta-carotene is referred to as pro-vitamin A because it is converted to vitamin A in the body as needed.
-

✓ **SAFE MANUFACTURING: Was it made according to Pharmaceutical Good Manufacturing Practices (GMPs)?**

- Pharmaceutical grade is the same standard that prescription drugs are manufactured to. The standards for pharmaceutical GMP are far stricter than the food GMP requirements set by the US government for supplements.
-

✓ **Has an independent scientific authority verified the quality of the supplement?**

- An independent study was performed and a book was subsequently written with the title "Comparative Guide to Nutritional Supplements." This book is currently in its 4th edition and has rated over 1500 supplements that are available in North America.
- Although the Comparative Guide does not specifically list prenatal vitamins, it lists many companies that make prenatal vitamins and you can learn how their products compare.



My name is George Fox; I co-authored this document with my wife Evelyn, a birth doula. It is our passion to bring evidence based nutritional knowledge to pregnant and lactating women. If you would like assistance in selecting a SAFE, complete and effective supplement to support your pregnancy, we would love to hear from you.

George Fox
Email: George.F.Fox@gmail.com
Phone: 727-437-2107
<http://www.prenatalsupplementfacts.com/>

Evelyn Ojeda-Fox
Email: ejedafox@gmail.com
Phone: 727-432-8080
<http://www.thepeacefulbirthproject.com/>

The information presented here is for educational purposes only.
Check with your midwife or doctor before adding supplements to your diet.

All contents copyright © Evelyn Ojeda-Fox and George Fox. 2011 All rights reserved.