

## Foods For Fertility

Although the connection between diet and fertility has not been studied extensively, health researchers at Harvard have found some evidence that certain dietary and lifestyle practices can make a difference for women who are trying to get pregnant. It seems that practicing at least five of the eight fertility factors that they identified decreased ovulation-related infertility in healthy women by 69% as compared to healthy women who practiced none of the fertility behaviors.

According to the results of the Nurse's Health Study, the following eight factors improved women's chances of ovulating:

**1 Eliminate trans fats and emphasize monounsaturated fats and omega-3 fats.** Trans fats (called "partially hydrogenated oil" on ingredient lists) are not only bad for your heart and your brain, but they interfere with ovulation, too. Eliminating all partially hydrogenated oils — which are usually found in commercial baked goods, fast food, fried food, margarine, shortening, cookies, crackers, some cereals, breads, energy bars and candy bars — from your diet is important for boosting fertility. Minimizing saturated fat to less than 17 grams a day is also recommended.

Most Americans eat about 10 times more polyunsaturated fat than they do monounsaturated fat, but the researchers recommend that women eat roughly equal amounts of monounsaturated fat and polyunsaturated fat. It's easy to get plenty of polyunsaturated fat in your diet, since it's in most processed and prepared foods, but women should minimize those foods and instead focus on their intake of the most important polyunsaturated fat, omega-3 fatty acid, which only comes from sources like salmon, anchovies, black cod, white fish,



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sardines, tuna, herring, halibut, and, to a lesser extent, walnuts, flax seeds and some omega 3-fortified foods. Eating more monounsaturated fat also takes some effort, since it is found mostly in extra virgin first cold pressed olive oil, avocados, seeds and nuts (not peanuts).

**2 Get dietary protein mostly from plant foods instead of animal foods.** In the study, the nurses who ate

most of their protein from animal sources had 39% more ovulatory infertility than women who ate most of their protein from plant sources. Eating two vegetarian meals a day would be a good way to execute this suggestion. Examples of plant-based proteins are soy beans, soy nuts, tofu, soy milk, tempeh, textured vegetable protein (TVP), lentils, garbanzo beans, black beans, kidney beans, cannellini beans, pinto beans, split peas, almonds, walnuts, pecans, cashews, pistachios, sunflower seeds, pumpkin seeds, sesame seeds and tahini, but they recommend limiting soy products to one serving a day. When you do choose animal proteins, your best bets are fish and eggs with poultry eaten occasionally. Try to minimize your intake of beef, lamb and pork as much as possible since they are associated with increased risk of ovulatory infertility.

**3 Replace simple and refined carbohydrates with slow-digesting carbohydrates.** Whole intact grains, starchy vegetables, beans, legumes, non-starchy vegetables and fruit all help control the level of women's blood sugar, insulin and other reproductive hormones related to ovulation. This is another good reason to minimize processed food, since women who ate the lowest quality carbohydrates were 92% more likely to have ovulatory problems than women who ate the highest quality carbohydrates. Instead of fast-digesting carbs like refined breakfast cereals, white breads, white rice, pasta, mature potatoes and crackers, try oatmeal (not instant), muesli, granola, barley, quinoa, flourless whole grain bread, brown rice, wild rice, whole wheat pasta (slightly undercooked), baby potatoes, orange sweet potatoes, peas, corn and winter squash.

**4 Eat one to two servings of full-fat dairy products a day.** This may be the most surprising recommendation



Gelson's registered dietitian, Jessica Siegel, has a Masters in Public Health. However, she is not a doctor and her nutritional recommendations are not tailored to specific health problems. Consult your physician before beginning any nutritional program. To contact Jessica, please call her at 1-800-GELSONS.

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of all, since it is so contradictory to our belief that nonfat dairy is the generally the healthiest choice. The researchers found that women who chose nonfat and low-fat dairy products had much higher rates of ovulatory problems than the women who ate full-fat dairy. The reason for this, in short, is that all dairy products contain both male and female sex hormones, but most of the female-type hormones in milk, such as estrogen, bind to fat; therefore, when the fat is removed or reduced, then the majority of hormones that remain are the male-type hormones, like testosterone, as well as other hormones that suppress ovulation. The full-fat dairy products, on the other hand, contain the full gamut of sex hormones. Whole milk seemed to have the best results in terms of increasing ovulation, and the authors recommend one

to two daily servings of full-fat dairy, ideally with one glass of whole milk each day plus two half-cup servings of ice cream a week.

**5 Take a prenatal multi-vitamin that includes plenty of folic acid and iron.** Folic acid and iron are especially important for increasing ovulation, but the multivitamin as a whole is also important for improving fertility and growing a healthy fetus. A prenatal vitamin that contains at least 400 micrograms of folic acid and 40 milligrams of iron is recommended. Additionally, a diet that is rich in these nutrients is imperative. Folate (the food form of folic acid) is found in lentils, black-eyed peas, pinto beans, garbanzo beans, romaine lettuce, asparagus, okra, spinach, Brussels sprouts, broccoli and other vegetables and whole grains. Iron is best consumed



### Foods to Eat More

- Vegetables
- Fruit
- Whole, intact grains
- Extra virgin olive oil
- Nuts
- Seeds
- Avocado
- Fatty fish
- Walnuts
- Beans
- Legumes
- Full-fat dairy products, including ice cream

from plant sources such as tofu, pumpkin seeds, blackstrap molasses, lentils, kidney beans, fortified breakfast cereals, artichokes, edamame, barley and nuts. Some research suggests that male partners could benefit from taking a standard multivitamin (not a prenatal one) since folic acid may boost sperm production.

**6 Drink mostly water and consume coffee, tea and sodas in moderation, if at all.** Being well-hydrated is an important factor in fertility, and water is the healthiest way to hydrate. Coffee and tea (caffeinated or decaf) seem to have no effect on fertility when consumed in moderation (one to three cups a day), and the same goes for alcohol when it is consumed at a rate of one glass daily. However, the consumption of any of these beverages beyond moderation will

probably negatively affect fertility and the practice of drinking alcohol and/or caffeine during pregnancy and preconception is controversial, so it may be best to take a break from these beverages.

Soft drinks, diet and regular, were also shown to diminish fertility. Women in the study who drank two or more caffeinated sodas a day had 50% more ovulatory infertility than women who drank soda less than once a week. Sodas with and without caffeine affect blood sugar and contribute many extra calories to the diet, both of which contribute to ovulatory infertility. Male partners may want to consider giving up caffeine and alcohol to promote successful conception, too.

### Foods to Eat Less

- Partially hydrogenated fats
- Trans fats
- Margarine
- Corn oil
- Cottonseed oil
- Sunflower oil
- Safflower oil
- Soybean oil
- Peanut oil
- Coconut oil
- Palm or palm kernel oil
- Beef fat
- Chicken fat
- Shortening
- Flour
- Refined grains
- High fructose corn syrup
- Sugar
- Energy bars with coatings
- Cakes
- Cookies
- Crackers
- Chips
- Breads
- Doughnuts
- Muffins
- Fried foods
- Frozen dinners
- Frozen desserts
- Snack foods
- Soft drinks
- Highly processed foods

**7 Both female and male partners should get their weight into the healthy range, a.k.a. the “fertility zone.”** The researchers explain that this is a range of weights for your height that maximizes fertility by regulating ovulation. For women, that optimum range is defined as a Body Mass Index (BMI) between 20 and 24. BMI is a quick and dirty way of estimating if your weight is right for your height and a BMI of 19–24 is considered healthiest. Here is the equation to use to calculate your BMI:  $BMI = \text{your weight in pounds} \times 703 \div (\text{your height in inches})^2$ . If your BMI is above 24, they recommend lowering it to be as close to 24 as possible, but they found that losing just 7.5% of your current weight can be enough to improve fertility. For those with BMI under 20, they recommend trying to gain five to ten pounds. Although they weren't able to define a fertility zone for men, they do emphasize that being overweight affects men's hormones, too, and overweight men seem to produce sperm that are less robust. Therefore, overweight male partners should aim to lose 7.5% of their body weight or get as close to a BMI of 24 as possible. Although losing weight is not always easy, the reward of conceiving a healthy baby is an excellent motivator.

**8 Start an exercise program if you haven't already and keep exercising if you have already started.** In the study, nurses who exercised vigorously for at least five hours a week had the lowest risk of ovulatory infertility. Exercise can help improve fertility when you exercise within a certain range of time and intensity that is right for your body since it helps to moderate hormone levels. Women who are at a healthy weight should aim for about 30 minutes of vigorous exercise a day. Women who have a BMI above 25 should try to get 60 minutes of exercise daily to help them get their weight into the “fertility zone.” Underweight women should be more moderate in both the time and intensity of their workouts, since over-exercising can impede ovulation and prevent weight gain. In addition to your everyday activities, the researchers recommend a combination of aerobic exercise, strength training and stretching, with aerobic exercise being the cornerstone of your program.

Getting pregnant is easier for some couples than it is for others; age, genetics, weight, diet and lifestyle are all contributing factors to fertility. While you can't control all of these risk factors, you can make some healthful alterations to your diet and lifestyle and the eight factors I outline here are a great starting point. Remember that your goal should be to

## Dear Readers,

I will be on maternity leave for the next several months, but in my absence, we at Gelson's want to continue to bring you important nutrition-related information on a monthly basis. Nutrition Notes newsletters and recipe cards will still be published monthly in the form of “Best of Jessica's Nutrition Notes.” We will re-publish some of my most popular and relevant articles from the last several years, especially those with baby- and child-related themes. This month, I write about foods that help promote fertility. In future issues, look for articles about lowering blood pressure (I've heard that high blood pressure can be brought on by the stress that kids cause!), losing belly fat (not just for new moms) and emotional eating. I will also feature a favorite “Kid-Friendly” recipe card each month that is easy enough for kids to make themselves, but delicious enough that both kids and adults will love to eat it.

I will be back at work in the Fall and look forward to resuming my store visits and writing original articles and recipes for you. Until then, be well and take good care.

Best of health,

Jessica

practice five of these eight factors, but you are certainly encouraged to aim for all eight. Few, if any, of the nurses in the study were able to achieve all eight elements, but the researchers speculate that the more of them you are able to achieve, the more successful you will be in boosting your fertility.

## Food of the Month: Pulses

Most people have never heard of a pulse in its food-related context, but in addition to the number of times your heart beats in a minute, it is also the name we use to describe the dried seed of a legume (which group includes foods you're probably more familiar with — beans, lentils and peas). Legumes are pods that split open when ripe to reveal their seeds. Many legumes, like green peas and fava beans, can be eaten fresh, but I want to focus on the varieties of dried pulses that are most common, such as kidney, black, pinto, white and garbanzo beans, as well as lentils and split peas.

Make all the jokes you want about beans being the “musical fruit,” but be warned: beans are seriously healthful. Dried beans are the best source of antioxidants in our diet, with red beans offering more antioxidants than wild blueberries! In fact, in a recent ranking of the best sources of food antioxidants, the top five foods were small red beans (dried), wild blueberries, red kidney beans (dried), pinto beans and cultivated blueberries. Their impressive antioxidant scores translate to big health benefits to us. Pulses contain compounds that can help protect against breast and colon cancers, lower blood cholesterol and blood pressure, control blood sugar, and reduce the risk of heart disease.

Actually, only part of the health benefits provided by pulses come from antioxidants; a lot also comes from their fiber content. Pulses are high in soluble fiber, which can help to significantly reduce cholesterol levels. Their insoluble fiber can aid in the prevention of colon cancer and promote regular bowel function. The total fiber content is great for diabetics and others who wish to control their blood sugar, since beans cause a slow, steady rise in blood sugar rather than a quick spike and drop, like some other carbohydrate-containing foods. A half cup of cooked beans supplies anywhere from 5 to 8 grams of dietary fiber. An important way that pulses protect against heart disease in general is by acting as a protein substitute



**Pulses are high in soluble fiber, which can help to significantly reduce cholesterol levels.**

for fatty animal proteins, like beef and pork. They contain no saturated fat, but have up to double the amount of iron and a lot more fiber than steak.

At Gelson's, pulses are available in dry, canned and cooked forms. Some of the most common types include pinto, black, kidney, cannellini, navy, garbanzo, butter and great northern beans, lentils, split peas, black-eyed peas, peanuts and soybeans. Most dry beans need to be soaked for several hours before cooking,

but lentils and split peas do not. Canned beans are a very convenient alternative to dry beans, but if you do then try to buy reduced-sodium varieties and then rinse them in a colander to remove 30–40% more salt. Look for cooked lentils in our produce department and cooked soy beans in the freezer case. When buying dried beans, you want them to be of uniform size and shiny color to ensure freshness and even cooking. To prepare dried beans, spread them on a pan or towel and pick out any stones or debris, transfer them to a colander and rinse under cold running water. Most beans, except lentils and split peas, require soaking. You can do this overnight or, to reduce soaking time to about an hour or two, boil water in a large pot and add the cleaned beans so that the water covers the beans by two inches, then cover the pot and allow the beans to double in size. Discard the soaking water and then follow the cooking directions in whatever recipe you are using. It's important to throw out the soaking water before you cook, since many of the gas-forming compounds get leached into that liquid. To further reduce flatulence, try eating just ½-cup of pulses at a time and avoid serving other gas-forming foods, such as cabbage-family vegetables, at the same meal. Chew ½ teaspoon of fennel or coriander seeds after meals or try an over-the-counter gas reliever before a bean meal to prevent gas. Use legumes in soups, chili, stews, dips, salads, vegetable patties, burritos and side dishes.

### Top 5 Antioxidant-Rich Foods

- 1 Small red kidney beans (dried)
- 2 Wild blueberries
- 3 Red kidney beans (dried)
- 4 Pinto beans
- 5 Cultivated blueberries