

PRECONCEPTION

Improve Your Health and Enhance Fertility

As you prepare for pregnancy, remember that your emotional and physical health and the health of the father-to-be are important for a healthy egg and sperm, and a healthy pregnancy and baby!

The ideal time to begin preparations and begin improving your health is four months prior to conception, as sperm development and egg maturation both take about 100 to 120 days. But even if you're already trying to conceive, you can improve your chances of becoming pregnant and having a healthy pregnancy by following any of the tips below.

It is not necessary to do everything we recommend! (Plenty of babies come into the world with no preparation at all on their parents' part, and they do just fine.) So if you find any one of the recommended actions difficult to manage, don't worry about it. However, the more of these suggestions you can follow, the better your chances of a smooth journey through conception and pregnancy.



Preconception Emotional Wellness

Decide whether you're ready for a baby.

Many babies are a “surprise,” and their parents don’t have the luxury of thinking out all the details out in advance. But if you’re reading this before conception, take the opportunity to really think through what your life is feeling like now and how it will be affected by adding in a baby. If you will be parenting with a partner, preconception is a great time for long talks about parenting. We have a list of questions to consider: <http://www.parenttrust.org/for-families/parenting-advice/parenting-tips/additional-tips/readyforbaby>.

Reduce stress and focus on your emotional health.

Stress can depress your immune system, raise your blood pressure, and alter your hormonal function. And stress increases the risk of miscarriage. Try to eliminate or reduce the situations that cause you stress. Learn and practice relaxation techniques for calming yourself.

Consider seeking out support and resources for any emotional challenges you’re facing. Participating in counseling, workshops, or support groups, as well as journaling and reading self-help books are ways to explore and process emotional issues, and learn new coping skills before your baby is born.

Do things that help you feel good: exercise, sleep well, eat well, and spend time with friends.

Work on your relationship with your partner.

The stronger your relationship is before your baby is born, the more easily it will weather the challenges of parenting. Read *And Baby Makes Three* by John Gottman and Julie Schwartz Gottman or *Becoming Parents* by Pamela Jordan, attend workshops on relationship skills, or consider couples’ counseling.

Think about your finances.

It’s a good idea to start planning financially for your pregnancy now. Learn more at <http://www.childbirthconnection.org/article.asp?ck=10304&ClickedLink=486&area=27>.

Understand your health insurance options.

Having a baby is very expensive, so make sure your coverage is set up in advance. If you have health insurance through your work or your partner’s work, learn about your maternity care coverage in advance. If you purchase insurance through the health care exchange (at <http://www.healthcare.gov>), it is very important to know that the open enrollment period for a new plan is between November 15 and February 15. If you become pregnant after that period, you will not be able to get insurance for that year! If you are low income, you may qualify for Medicaid or the Children’s Health Insurance Program (CHIP). Learn more at <http://www.healthcare.gov>.

Learn more about insurance at <http://www.PCNGuide.com> in our “So Many Choices” section.

Preconception Wellness

Improving your physical health will improve your chances of conceiving and having a good start to your pregnancy. Again, it's not necessary to do all of these things; just do what you can.

Eat a healthy diet to prepare your body for pregnancy.

- Take folic acid. Take 400 micrograms of folic acid per day (or 4–5 milligrams if you have epilepsy, insulin-dependent diabetes, a family history of neural tube defects, or are obese with a body mass index [BMI] over 35¹). Folic acid greatly reduces the risk of certain birth defects and miscarriage.
- Drink plenty of fluids. Plan on $\frac{1}{2}$ ounce a day per pound that you weigh (for example, a 150-pound woman should drink 75 ounces of fluids).
- Take a multivitamin. Choose one vitamin that meets all your needs—taking several different kinds of multivitamins can lead to an accidental overdose of one or more nutrients.
- Choose healthy, whole foods (organic, if possible) with few additives and hormones.
- Eat more whole-grain foods and fewer refined grains. Vary your veggies and eat a variety of fruits.
- Switch from low-fat dairy foods, which may inhibit ovulation, to full-fat dairy foods.² Consume other healthy fats, especially omega-3 fatty acids.



For more nutritional recommendations, see chapter 6 (Eating Well) of *Pregnancy, Childbirth, and the Newborn* and the Nutrients, Vitamins, and Minerals: Daily Recommendations chart in the Eating Well section of <http://www.pcnuguide.com>. All the recommendations for a healthy diet for pregnancy will be helpful for you before conception; just don't add any extra calories yet!

The father-to-be (and his sperm) can also benefit from a healthy diet and perhaps a multivitamin. Zinc, essential fatty acids, and vitamins C and E may be especially helpful in the preconception period.

Get to a healthy weight before conceiving.

Ideally, your BMI should be between 20 and 25 before pregnancy. (To learn your BMI, search online for a “BMI Calculator.”)

If you are underweight (BMI under 18), you might have reduced fertility. While your ovaries might produce and release eggs, the lining of your uterus might not be adequate for a healthy pregnancy. If you are severely underweight, you might not be menstruating, and might be infertile. Additionally, beginning pregnancy underweight can increase your chances of preterm birth. If the father-to-be is underweight or has lost significant body weight recently, he may have decreased sperm count or function.

If you've had an eating disorder, work with a counselor and your physician to address any related issues prior to pregnancy.

If you are overweight (BMI between 25 and 30), obese (BMI over 30), or morbidly obese (BMI over 40), you may find it difficult to conceive and will face a more complicated pregnancy and birth. Do what you can to reach a healthy weight, and maintain that weight prior to becoming pregnant. If, despite your best efforts, you are overweight when pregnancy begins, monitor weight gain during pregnancy. Limiting weight gain to 15–25 pounds (or less than 25 pounds if morbidly obese) reduces the risk of macrosomia (big baby), gestational hypertension, and cesarean.³

If the father-to-be is obese and has a poor diet at the time of conception, it may reduce fertility and may increase the chance that his child will be obese later in life.⁴

Exercise: Begin pregnancy strong and fit.

Moderate exercise (two to six hours per week) can enhance fertility by regulating hormones, improving circulation to the ovaries and uterus (or to the testes for the father-to-be). It also improves mood and reduces stress. But don't overdo it. Extreme exercise (such as running 100 miles in a week) can decrease fertility through impaired ovulation for women and reduced sperm count for men.⁵

Preconception Health Care

See your dentist for a checkup before you conceive.

Have any x-rays or fillings that need to be done, but ask for the new fillings to be done without mercury (it's not necessary to remove existing mercury fillings). Treat any existing gum disease, as it can increase the risk of miscarriage and premature birth.

See your physician for a medical checkup before you conceive.

Your physician should screen both you and the father-to-be for sexually transmitted infections (STIs) and treat if needed, as some STIs can increase the risk of infertility, miscarriage, and birth defects. Your physician should also address any medical conditions and medications that could complicate conception, pregnancy, or birth. For chronic conditions (such as hypertension, diabetes and epilepsy), try to optimize control of the condition and medication levels before pregnancy. Be sure your physician and pharmacist know that you're planning to conceive, so they can assess current and new medications, herbs, and supplements for any potential risks and make substitutions as needed. Get up-to-date on vaccinations, including varicella, rubella, and hepatitis B.

Read "Recommendations for Preconception Counseling and Care" to learn more: <http://www.aafp.org/afp/2013/1015/p499.html>. To learn about medications, visit <http://www.cdc.gov/pregnancy/meds/treatingfortwo/research.html>.

Consider genetic screening.

Genetic carrier screening is not necessary for many people, but may be recommended to you if you or your partner are concerned about inherited diseases in your family, belong to certain ethnic groups that have a higher risk of certain genetic diseases, have had multiple miscarriages, have a child with an inherited disorder, or are over age thirty-five.

There are over one hundred diseases that can be screened for. They include sickle cell anemia, beta thalassemia, Tay-Sachs disease, and cystic fibrosis. The tests may indicate that you are a carrier of a disease: you have no symptoms but carry the gene that could pass the disease on. If only one parent is a carrier, your child will not have the disease. However, if both parents are carriers, your child will have a one in four chance of having the disease. For more information, visit <http://www.acog.org/Patients/FAQs/Preconception-Carrier-Screening>.



Preconception Hazards

Reduce or eliminate use of harmful substances.

Both you and the father-to-be should reduce your use of caffeine, alcohol, tobacco, and illegal substances four months before you plan to conceive.

Caffeine: Consuming caffeine in amounts up to 200 to 300 milligrams per day (one or two cups of coffee, three cups of tea or 72 ounces of soda) is generally considered safe for preconception and pregnancy by most authorities. However, there are studies that indicate even one cup of regular coffee per day can decrease chances of conceiving and increase the chance of miscarriage.

Alcohol: Drinking as little as five drinks a week can significantly reduce fertility. Alcohol use in pregnancy increases the chances of miscarriage, developmental delays, and growth retardation.

Smoking and secondhand smoke: If you and/or your partner smoke, your fertility can be significantly impaired.⁶ Once pregnant, you have a higher risk of miscarriage, premature birth or low birth weight, and are more likely to have a baby with birth defects.

All substance effects are dose-related. The more you use, the higher your risks will be. If you consume only a small amount of a substance, the potential side effects are small, so reduce your use as much as possible.

For more on harmful substances and resources to help you quit using them, visit <http://www.childbirthconnection.org/article.asp?ck=10299&ClickedLink=486&area=27>.

Reduce your exposure to environmental hazards.

Both you and the father-to-be should reduce your exposure to the following environmental hazards, which are linked to infertility, miscarriage, or birth defects.

- heavy metals
 - lead: traffic fumes, lead-based paint, and home renovation
 - mercury: fish containing high levels of mercury, amalgam fillings, tattoo inks, and manufacturing involving mercury
 - cadmium: cigarettes and secondhand smoke
 - aluminum: food or beverages cooked or stored in aluminum, baking powder, antacids, and deodorant
- solvents, pesticides, chemical fumes from paints, thinners, wood preservatives, glues, benzene, and dry cleaning fluids
- bisphenol-A (BPA) plastics
- carbon monoxide and anesthetic gases
- ionizing radiation (from x-rays and radioactive materials)

If you're exposed to hazards at your workplace, shower afterward and wash your work clothes separately. Ask your employer for Material Safety Data Sheets (MSDS) for more information, plus good ventilation and protective gear.

Reduce your exposures to infections.

Infections can reduce fertility and also can be harmful in early pregnancy. Wash your hands often and use gloves and other universal precautions to protect yourself from bacterial and viral infections. Use good food safety practices to protect yourself from food-borne illnesses.

Enhancing Fertility and the Odds of Conception⁷

Many people spend years carefully protecting against accidental pregnancies and then are shocked when they don't get pregnant the first time they have sex without using contraception. It's important to have realistic expectations about how long conception may take once you actually start trying. Keep in mind that it's normal to take six months to conceive.

Here are some ways to increase your chances of conceiving:⁸

- Optimize timing. Sperm can survive within the woman for three days. Once an egg is released (ovulation), it is viable for twelve to twenty-four hours. Thus, timing intercourse in the three days prior to ovulation significantly increases your chance of conceiving.
 - For example, intercourse two days before ovulation carries a 50 percent chance of conception for a couple age 19 to 26 (30 percent at age 35 to 39), versus intercourse four days before ovulation carries a 30 percent chance of conception (20 percent).
 - To predict and detect ovulation, go to <http://www.fertilityfriend.com> or <http://www.plannedparenthood.org/learn/birth-control/fertility-awareness> to learn about fertility awareness through tracking your cycles on a calendar, charting basal body temperature, observing cervical mucus, and other methods.
- Many personal lubricants (e.g., KY Jelly, Astroglide, olive oil, and saliva) can reduce sperm motility or weaken sperm. Mineral oil, canola oil, and hydroxyethylcellulose-based lubricants (e.g., Pre-Seed) are better options.
- For the best sperm quality and quantity, having intercourse every one to two days during the fertile window may be best. If a man is abstinent for ten days or more, sperm count and quality decreases.
- Despite common beliefs, the evidence doesn't show that using specific positions for sex or lying down after intercourse enhance the odds of conception.



Concerns about Infertility

You are not considered a couple with fertility issues until you have been trying for more than a year (or more than six months if you're over age 40). If you have been following the recommendations above, and it is taking longer to conceive than you had hoped, you may try these options.

- Certain nutrients are particularly helpful to ingest when you're trying to conceive, especially antioxidants: vitamins B₆, E, and C, and zinc and selenium, as well as anti-inflammatory omega-3 fatty acids (for both you and the father-to-be).⁹ Amino acids L-arginine and L-carnitine are helpful for men.¹⁰
- Some herbal supplements also can enhance fertility: You can try vitex (chaste tree berry), Siberian ginseng, red clover blossom, or red raspberry leaf for women. With all supplements, it's best to consult with a trained provider before taking.
- Acupuncture can also aid conception, whether used on its own or in conjunction with infertility treatments.¹¹ Consult with a practitioner for advice.

If the measures described here are not enough to help you conceive, you may consider using assisted reproductive technology (ART). To learn more about ART, visit <http://www.cdc.gov/ART> or http://www.marchofdimes.com/pnhec/173_14308.asp.

Planning Ahead: Maternity Care Choices

Your choice of caregiver for your prenatal care and to attend your birth, as well as your choice of birthplace, have a huge influence on your birth experience and your level of satisfaction with your birth. Since you will start prenatal care early in your pregnancy, it's a great idea to research your options while you're working on conceiving the baby.

For a caregiver, you may choose a midwife, a family practice doctor, or an obstetrician. For a birthplace, your options include home birth, free-standing birth centers, and hospitals. To learn more about these options, read the Great Starts Guide at <http://www.parenttrust.org/web-store/books/> or visit www.childbirthconnection.org. For lists of questions to ask about your options, check out <http://www.pcnguide.com> in the "So Many Choices" section.

Notes

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