

## Good Health Before Pregnancy: Preconceptional Care

Planning your pregnancy can help you make wise choices that will benefit both you and your baby. Many women don't know they are pregnant until several weeks after they have conceived. These early weeks are key for the baby growing inside you. During those early weeks, your health and nutrition can affect your baby's growth. Good health and health care before you become pregnant— also called preconception care—will help you throughout your pregnancy. This pamphlet will explain:

- How to maintain good health before pregnancy
- What to expect when you visit your doctor
- How certain lifestyle factors can affect your pregnancy

### **A Preconception Visit**

If you are planning to become pregnant, make an appointment with your doctor. Your doctor will try to identify things that may pose risks to you or your baby. You may be asked questions about your diet and lifestyle, medical history, use of birth control, past pregnancies, medications, and any diseases that may run in your family. Be open and honest when you respond to these questions. Your answers will help find out if you need to make any changes to prepare for pregnancy. You also can plan for any special care that may be needed during pregnancy.

### **Lifestyle**

Your doctor may ask about your family life, work, and lifestyle to learn if you could be exposed to a risk. He or she may ask about hobbies, eating and exercise habits, as well as things at home and work that could affect your pregnancy.

### **Diet and Nutrition**

Your doctor will review your diet. He or she may suggest changes in areas such as:

- Your weight
- Your use of vitamins or other supplements
- Your eating habits, such as a vegetarian diet or fasting

If you are planning to have a baby, you should try to reach a healthy weight before you become pregnant. A woman who is slightly underweight can gain a few pounds to prepare for pregnancy. An overweight woman should try to lose weight before

pregnancy. Dieting during pregnancy could deprive a baby of nutrients that are needed to grow and develop.

Excess weight can cause high blood pressure or diabetes. It also puts a strain on the heart. This strain becomes even greater during pregnancy, when your heart has to work harder to supply blood to you and your baby. Women who are obese have a greater chance of problems during pregnancy, which poses risks for the baby as well as the mother. They also are at increased risk for a condition called macrosomia, in which a fetus grows too large and may have trouble fitting through the birth canal.

Being underweight can lead to trouble getting pregnant. It also may increase your chances of giving birth to a low birth weight baby. These babies are not easier to deliver and often have problems during labor and after birth.

To reach a healthy weight before pregnancy, it helps to plan your diet. An average woman needs about 2,000 calories per day. Eat plenty of fruits, vegetables, and whole-grain products each day. Drink fat-free or low-fat milk and other dairy products. If you already have a good diet, it is easy to make changes during pregnancy to get the extra calories and nutrients you need.

Folic acid can help reduce the risk of *neural tube defects* in the fetus. The neural tube is formed very early in pregnancy, usually before a woman even knows she is pregnant. Therefore, all women of childbearing age should take 0.4 milligrams of folic acid daily (see box). Folic acid is found in foods such as leafy dark-green vegetables, citrus fruits, beans, and enriched breads and cereals. However, it is hard to eat enough of these foods to meet the requirement. For this reason, doctors advise women to take a daily folic acid supplement or a multivitamin that includes folic acid.

Tell your doctor about any herbal products, vitamins, or nutritional supplements you take to promote health. Even certain vitamins can be harmful if taken in excess. For instance, vitamin A in doses more than 10,000 international units per day has been shown to cause severe birth defects if taken during pregnancy.

### *Keeping Fit*

Good health depends on both a proper diet and exercise. If you follow a fitness routine before you conceive, you can improve your chances of having a comfortable and active pregnancy. The sports and exercise you can do during pregnancy depend on your health and how active you were before you became pregnant.

## Tips for Healthy Living

- Make at least half of the total grains you eat whole grains, such as brown rice, oatmeal, wild rice, pasta, and whole-wheat bread. Eat 3 or more ounces of whole grains each day.
- Eat 2 1/2 cups a day of vegetables, especially dark-green vegetables, orange vegetables, and dry beans and peas. You can eat fresh vegetables or canned or frozen ones. Try to include vegetables in lunch, dinner, and snacks. You also can add vegetables to soups, stews, and stir-fries.
- Eat 2 cups a day of a variety of fruit. You can eat fresh fruit or canned, frozen, or dried fruit. Use fruit in salads, desserts, and snacks. You also can use it as a topping for cereals, pancakes, and other foods. This will help you eat fruits as well as cut down on other sugary foods. If you drink fruit juices, keep the amount you drink to less than half of your daily fruit servings.
- Drink 3 cups of fat-free or low-fat (1%) milk each day. If you cannot drink milk, eat the same amount of yogurt or cheese. (If eating cheese, you need to eat 1 1/2 ounces of natural cheese or 2 ounces of processed cheese to equal a cup of milk.)
- Avoid too much salt.
- Avoid added sugars and sweeteners.
- When choosing meat, choose low-fat or lean meats and poultry (chicken). Trim fat from meat and remove skin before cooking. Use cooking methods that do not add fat, such as grilling, broiling, or roasting. Lean meats, poultry, fish, eggs, dry beans and peas, and nuts and seeds all count toward your daily protein needs.
- Cook foods at a high enough temperature and be sure they are well done. Make sure to separate raw, cooked, and ready-to-eat foods while shopping, preparing, or storing foods. Wash your hands, fruits and vegetables, and any surfaces food will touch.



If you have no medical problems, try to do at least 30 minutes of moderate exercise most days of the week. Even everyday activities like gardening and cleaning count.

Swimming and walking are good forms of exercise. Jogging, cycling, and some strenuous sports may be fine to continue during pregnancy if you are in shape and were used to them before you became pregnant.

## *Domestic Violence*

Women who are victims of domestic violence are even more likely to be abused during pregnancy. If you are being abused, tell your doctor, nurse, or social worker. They can help you get in touch with support services for abused women, such as crisis hotlines, domestic violence programs, legal aid services, or counseling. Most areas have shelters for abused women and children. You also can get help from the social services department in your area.

## **Folic Acid: The Vital Vitamin**

All women of childbearing age should take 0.4 milligrams of folic acid daily. Pregnant women should have at least 0.4 milligrams each day during the first 3 months of pregnancy. Women who have had a child with a spine or skull defect are more likely to have another child with this problem. These women need higher doses of folic acid—4 milligrams daily. It should be taken 1 month before pregnancy and during the first 3 months of pregnancy. These women should take folic acid alone, not as part of a multivitamin preparation. To get enough folic acid from multivitamins, a woman would be getting an overdose of the other vitamins. This vitamin can be found in many food sources:

- Dark, leafy greens and vegetables (such as spinach, collard and turnip greens, Romaine lettuce, broccoli, and asparagus)
- Enriched breads and cereals
- Citrus fruits and juices (such as strawberries, oranges, and orange juice)
- Organ meats (such as liver)
- Dried peas and beans (such as pinto, black, navy, and lima beans, chickpeas, and black-eyed peas)
- Folic acid-fortified breakfast cereals

## *Alcohol, Tobacco, and Illegal Drugs*

Smoking, drinking, and drug use during pregnancy can harm the baby. Even using these substances only once in a while, or in small amounts, can do harm to the fetus or make it harder to get pregnant.

If you use alcohol, tobacco, or drugs, now is a good time to quit. If you need help, tell your doctor. He or she can refer you for counseling or treatment.

Your partner also should quit using harmful substances. Some studies have found that if your partner smokes, drinks, or uses drugs, it can lower his fertility, damage his sperm, and have a harmful effect on the fetus. Living with someone who smokes also means that you are likely to breathe in harmful amounts of secondhand smoke. There is also a risk for the baby after he or she is born. Infants and young children who are exposed to

secondhand smoke have more colds and respiratory infections and are at an increased risk of *sudden infant death syndrome (SIDS)*.

### ***Environment***

Some substances found at home or work can make it harder for you to become pregnant or can harm your fetus (see Table 1). Think about what you come into contact with at work and home and take steps to avoid being exposed to harmful things. If there are substances that you are concerned about, talk to your doctor.

Your partner's fertility also can be affected. Exposure to chemicals used in photography, solvents, heavy metals, such as lead and mercury, and some pesticides can damage his sperm.

### ***Special Concerns***

Some health concerns may require special attention before or during pregnancy. In many of these cases, close monitoring or treatment before and during pregnancy can help prevent problems or make them less severe. That is why getting preconception care is so vital to having a healthy baby.

### ***Medical Conditions***

Women who have diabetes, high blood pressure, seizures, heart disease, or those who are obese may need special care during pregnancy. Your treatment may need to be changed to prepare for pregnancy.

You should tell your doctor if you are taking medications, either prescribed or bought over the counter. Some can harm your fetus. These include some blood thinners and medications that control acne, high blood pressure, and seizures.

You should try to get any health problem you may have under control before you become pregnant. For instance, women with diabetes can increase their chances of having healthy babies if they eat right, exercise, and maintain normal blood sugar levels both before and during pregnancy.

### ***Vaccinations***

Infections can harm both the mother and the fetus. Some infections during pregnancy can cause birth defects or illnesses in the fetus.

## Are Your Immunizations Up-to-Date?

Women in their reproductive years should have immunizations as a routine part of preventive care:

- Tetanus–diphtheria booster (every 10 years)
- Measles, mumps, rubella (once if not immune)
- Varicella vaccine (once if not immune)
- Human papillomavirus (once between the ages 9 and 26 years)
- Chicken pox\* (once if not immune)
- Hepatitis A vaccine\*
- Hepatitis B vaccine\*
- Influenza vaccine\*
- Pneumococcal vaccine\*

\*These immunizations are given as needed based on risk factors. Check with your health care provider.

Vaccination can prevent some infections. It is important to be vaccinated before becoming pregnant because some vaccines are not safe to use during pregnancy.

Women who will be pregnant during the influenza (flu) season (October through mid-May) should be vaccinated. The vaccine is safe for use during pregnancy.

## Infections

Infections passed through sexual contact—*sexually transmitted diseases (STDs)*—also are harmful during pregnancy. Many types of STDs may affect your ability to become pregnant. They also may infect and harm your baby.

If you think you or your partner may have an STD, get tested and treated right away. Your partner also may need to be treated. Neither of you should have sex until you have both finished treatment.

Infection with *human immunodeficiency virus (HIV)* can cause harm to mother and baby. Early treatment may help prevent the infection from being passed to the fetus. Because of this, your doctor will offer HIV testing, even if you have no symptoms.

<b>Agent</b>	<b>Reasons Used</b>	<b>Fetal Effects</b>
Alcohol	Social reasons, dependency	Growth restriction and mental retardation
Androgens and Testosterone by-products (such as danazol)	To treat certain types of infertility, breast problems, and edema (swelling)	Genital abnormalities, male-like characteristics in female babies, and advanced sexual development in male babies
ACE inhibitors (such as enalaprilor captopril)	To help treat high blood pressure and heart failure	Growth restrictions, problems with brain and kidneys
Anticonvulsants	To treat seizure disorders and irregular heartbeat	Growth restriction and mental retardation, developmental problems, neural tube defects
Cancer drugs	To treat cancer and psoriasis (skin disease)	Increased risk of miscarriage, various defects
Coumarin by-products	To prevent blood clots (such as warfarin)	Problems with development of bones and eyes, growth restriction, nerve problems, developmental delays
Illegal drugs	Dependency	Problems with placenta, preterm birth, or fetal death or brain injury and developmental problems
Isotretinoin	Treatment for cystic acne	Increased risk of miscarriage, developmental problems
Lead	Industries involving lead smelting, paint manufacture and use, printing, ceramics, and pottery glazing	Problems in development of the central nervous system
Lithium	To treat the manic part of manic-depressive disorders	Congenital heart disease
Methylmercury	Pollutant found in certain types of fish including tuna, and particularly shark, swordfish, king mackerel, and tilefish	Problems with development of nerve system
Streptomycin and kanamycin	Antibiotics used to treat or prevent infection	Hearing loss
Tetracycline	An antibiotic used to treat infection	Underdevelopment of tooth enamel, incorporation of tetracycline into bone
Thalidomide	To treat or prevent certain skin diseases	Abnormal or missing limbs or ears and heart and gastrointestinal defects
Tobacco	Dependency, social reasons	Low birth weight baby, stillbirth, problems with the pregnancy

### *Past Pregnancies*

Your doctor will ask questions about any past pregnancies. If you have had more than one miscarriage, a past complicated pregnancy, or a previous baby with a birth defect, your doctor may suggest certain tests. If you had a problem in a past pregnancy, that does not mean the problem will recur. Most women will have normal pregnancies and healthy babies the next time.

### *Family Health History*

Some conditions occur more often in certain families. If a close member of your family has a history of a disorder, you may be at greater risk of having it. For instance, you may be asked whether any member of your family has had diabetes, high blood pressure, seizures, mental retardation, a history of blood clots, or certain types of birth defects. Ask your relatives about their health history before your visit, so you have the answers you will need.

Certain disorders can be inherited. These are called genetic disorders. Some genetic disorders are more common in certain ethnic groups. Based on your age, family history, and ethnic group, you may be offered genetic counseling—a meeting with someone who is specially trained in genetics. Genetic counseling can help couples find out their chances of having a child with a birth defect. It involves a detailed family history. In some cases, you also will have a physical exam and lab tests.



Testing can be done to detect some genetic disorders. In some cases, parents can be tested before pregnancy to see if there is a chance that the disorder could be passed to their children.

For instance, many doctors offer testing for *cystic fibrosis* to all their patients. The risk is higher if both you and your partner have Caucasian ancestry. A blood test can tell if you or your partner carry the gene that causes the disease. Testing is best done before pregnancy or in early pregnancy. Knowing your risk for having a baby with cystic fibrosis can help you to decide whether to have a baby or help you plan for special care. Tests also are available for other disorders.

## Finally...

Becoming a parent is a major commitment filled with many challenges, rewards, and choices. Making healthy choices before you become pregnant is an important step to a healthy and happy pregnancy.

### Glossary

***Cystic Fibrosis:*** A life-long illness, usually diagnosed in the first few years of life, which causes problems with digestion and breathing.

***Human Immunodeficiency Virus (HIV):*** A virus that attacks certain cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS).

***Miscarriage:*** Early pregnancy loss.

***Neural Tube Defects:*** Birth defects that result from incomplete development of the brain, spinal cord, or their coverings.

***Sexually Transmitted Diseases (STDs):*** Diseases that are spread by sexual contact, including chlamydial infection, gonorrhea, genital warts, herpes, syphilis, and infection with human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

***Sudden Infant Death Syndrome (SIDS):*** The unexpected death of an infant in which the cause is unknown.