

# PACT THEME RESOURCES

## MAKING HEALTHY CHOICES TO HELP PREVENT BIRTH DEFECTS

Make a PACT for Prevention

### PLAN AHEAD

Planning ahead encourages women and men to focus on their preconception health, which refers to health during the years they can have a baby. Preconception health involves taking steps now to protect the health of a baby they might have sometime in the future. All women and men can benefit from preconception health, whether or not they plan to have a baby one day. Preconception health is about getting and staying healthy overall, throughout their lives. In addition, no one expects an unplanned pregnancy. But, half of all pregnancies in the United States are unplanned. Planning ahead involves taking control, setting goals for the future, choosing healthy habits, and taking the steps needed to get there.



### Key messages

- **Folic Acid:** Folate (folic acid) is a B vitamin that can help prevent major birth defects of the brain and spine. It is important for all women to get 400 micrograms (mcg) of folic acid every day. For folic acid to help prevent some major birth defects, a woman needs to start taking it at least one month before she becomes pregnant and while she is pregnant. Every woman needs folic acid every day, whether she's planning to get pregnant or not, for the healthy new cells the body makes daily. There are a couple of easy ways to get folic acid: take a vitamin daily with folic acid in it (such as a women's multivitamin or pre-natal vitamin) and eat foods that have added folic acid, like breakfast cereal. It is also important to eat a diet rich in natural folate, like dark leafy greens, beans, and peanuts.
- **Medical checkup:** Get a medical checkup at least once per year. If you have any medical conditions, such as weight control or diabetes, be sure they are in control and being treated. Discuss any medications, both over-the-counter and prescription, with your healthcare provider and make sure you are taking only those that are necessary.
- **Family planning:** Use birth control and make a plan for having children – or not having children! This is especially important if you are taking certain medications or using other substances, including alcohol, that increase the risk for birth defects.

### What you can do

- **All adults:** Make a reproductive life plan to think about your goals for school, your job or career, and for other important things in your life. Then, think about how having children fits in with these goals. When you are ready, plan your pregnancy. Whether you are trying to have a baby, or are just thinking about it sometime in the near or distant future, it is never too early to start getting ready for pregnancy: ([www.cdc.gov/preconception/documents/reproductivelifeplan-worksheet.pdf](http://www.cdc.gov/preconception/documents/reproductivelifeplan-worksheet.pdf)).
- **Women who want to become pregnant:** Complete the "Show Your Love - Steps to a Healthier me and baby-to-be" checklist to set goals and make a health plan ([www.cdc.gov/preconception/showyourlove/documents/Healthier\\_Baby\\_Me\\_Plan.pdf](http://www.cdc.gov/preconception/showyourlove/documents/Healthier_Baby_Me_Plan.pdf)).

- **Women who do not want to become pregnant:** Complete the “*Show Your Love - Steps to a Healthier me*” checklist to set goals and make a health plan ([www.cdc.gov/preconception/showyourlove/documents/Healthier\\_Me\\_NonPlan.pdf](http://www.cdc.gov/preconception/showyourlove/documents/Healthier_Me_NonPlan.pdf)).

## Resources for Families/Women

### **CDC Preconception Health** ([www.cdc.gov/preconception/index.html](http://www.cdc.gov/preconception/index.html))

Learn what you need to know now to have a safe pregnancy and healthy baby with CDC’s preconception health web portal. The website provides checklists to aid in making preconception health and reproductive life plans.

### **CDC Folic Acid** ([www.cdc.gov/ncbddd/folicacid](http://www.cdc.gov/ncbddd/folicacid))

This site provides information on the importance of folic acid for the prevention of birth defects. Also featured are an online CDC folic acid publication order form, a FAQ section, folic acid fact sheets, and a quiz. A version in Spanish is also available.

### **U.S. Office of Women’s Health - Preconception Health** ([www.womenshealth.gov/pregnancy/before-you-get-pregnant/preconception-health.html](http://www.womenshealth.gov/pregnancy/before-you-get-pregnant/preconception-health.html))

Read about why preconception health matters and how you can prepare for a healthy pregnancy. This website also provides a print-and-go guide to help you talk to your doctor.

### **What to Expect - Preconception**

([www.whattoexpect.com/preconception/landing-page.aspx](http://www.whattoexpect.com/preconception/landing-page.aspx))

What to Expect provides resources to prepare you for pregnancy as well as a forum to connect with other families and moms-to-be.

## Resources for Healthcare Providers

### **Show Your Love Preconception Health Campaign** ([www.cdc.gov/showyourlove](http://www.cdc.gov/showyourlove))

*Show Your Love* is a national campaign designed to increase the number of women who plan their pregnancies and engage in healthy behaviors before becoming pregnant. For women who don’t want to start a family in the near future or at all, the campaign encourages them to choose healthy behaviors so that they can be their best and achieve the dreams they have for themselves.

### **Preconception Curriculum** ([www.beforeandbeyond.org/?page=cme-modules](http://www.beforeandbeyond.org/?page=cme-modules))

This website, designed for physicians providing health care to women who may become pregnant, includes a clinical toolkit, a series of online training modules, guidelines, and practice resources. The training modules’ curriculum includes a series of PowerPoint slide sets, a core module (which should be viewed first), and separate modules for different medical specialties. There are also presentation notes included, which make this an educational tool that may be helpful for teaching residents, fellows, nurses, and primary care providers in conferences, didactic sessions, or Grand Rounds.

### **Preconception Self-Study Courses** (<https://oh.train.org/DesktopShell.aspx>)

The Ohio Department of Health’s Bureau for Children with Special Needs and Michigan Department of Community Health’s Bureau of Disease Control, Prevention and Epidemiology are offering free educational self-study trainings for nursing and other healthcare providers interested in improving the preconception and interconception health of women of childbearing age. These self-studies provide information and resources addressing some common risk factors for poor reproductive outcomes, with a particular emphasis on recognizing and decreasing the risk for birth defects.

*Additional resources, including condition-specific information, are available on the NBDPN website at [www.nbdpn.org](http://www.nbdpn.org).*

## A VOID HARMFUL SUBSTANCES

Certain substances, such as alcohol, tobacco, and drugs, can increase the risk for some types of birth defects. Some substances in the workplace or home have also been linked to birth defects and poor pregnancy outcomes. If a woman is pregnant or thinking about becoming pregnant, avoiding these exposures before and during pregnancy can help increase her chances for a healthy baby. In the United States, nearly half of pregnancies are unplanned. If a woman gets pregnant unexpectedly, she might expose her developing baby to alcohol or other harmful substances before she realizes she is pregnant. This is because a woman can be pregnant and not know it for up to 6 weeks.



### Key messages

- **Avoid alcohol:** There is no known safe amount of alcohol use during pregnancy or while trying to get pregnant. There is also no safe time during pregnancy to drink alcohol. All types of alcohol are equally harmful, including all wines and beer. Drinking alcohol during pregnancy can cause miscarriages, stillbirths, and a range of lifelong physical, behavioral, and intellectual disabilities. These disabilities are known as fetal alcohol spectrum disorders (FASDs).
  - **What you can do:** The best advice for women is to stop drinking alcohol when trying to get pregnant. Contact your doctor, Alcoholics Anonymous, or local alcohol treatment center ([findtreatment.samhsa.gov](http://findtreatment.samhsa.gov)) if you need help to stop drinking.
- **Avoid smoking cigarettes:** Women who smoke during pregnancy place themselves and their unborn babies at risk for health problems, including premature birth, certain birth defects (like cleft lip and/or palate), and Sudden Infant Death Syndrome (SIDS).
  - **What you can do:** Quitting smoking before getting pregnant is best. For a woman who is already pregnant, quitting as early as possible can still help protect against some health problems for the baby, such as low birth weight. If you need help quitting, talk to your doctor or go to [Smokefree.gov](http://Smokefree.gov).
- **Avoid marijuana and street drugs:** A woman who uses marijuana or street drugs during pregnancy can have a baby who is born preterm, of low birth weight, or has other health problems, such as birth defects. Marijuana is the illicit drug most commonly used during pregnancy.
  - **What you can do:** Since we know of no safe level of marijuana use during pregnancy, women who are pregnant or considering becoming pregnant should not use marijuana, even in states where marijuana is legal. Women using marijuana for medical reasons should speak with their doctor about an alternative therapy with pregnancy-specific safety data.
- **Environmental and Workplace Exposures:** Some workplace hazards, such as exposure to fumes or toxic metals, can affect reproductive health, the ability to become pregnant, and the health of your unborn baby.
  - **What you can do:** Be careful about workplace exposures. Even if your job involves some hazards, there are things you can do to protect yourself and stay safe at work: ask questions about hazards in your workplace, protect yourself from exposure, talk to your doctor, learn how to avoid bringing hazards home, and request a health hazard evaluation.

## Resources for Families/Women

### **CDC Alcohol Use in Pregnancy** ([www.cdc.gov/ncbddd/fasd/alcohol-use.html](http://www.cdc.gov/ncbddd/fasd/alcohol-use.html))

This website discusses why alcohol use in pregnancy is dangerous and provides resources for help in stopping drinking.

### **Smokefree.gov** ([smokefree.gov/](http://smokefree.gov/))

This website provides information and resources on quitting smoking.

### **Become an EX: For pregnant and postpartum smokers**

([www.becomeanex.org/pregnant-smokers.php](http://www.becomeanex.org/pregnant-smokers.php))

The American Legacy Foundation developed this EX program to help people quit smoking and to "re-learn life without cigarettes." It includes a section specifically for pregnant and postpartum smokers.

### **National Organization on Fetal Alcohol Syndrome (NOFAS)** ([www.nofas.org](http://www.nofas.org))

NOFAS offers multiple resources for people and families living with FASD including the Circle of Hope: a mentoring network for birth mothers, a resource directory as well as multiple fact sheets and materials with tips for parents, caregivers, and teachers.

### **National Institute for Occupational Safety and Health (NIOSH): Reproductive health and the workplace**

([www.cdc.gov/niosh/topics/repro/](http://www.cdc.gov/niosh/topics/repro/))

This website provides information on workplace hazards that may pose a risk to male and female fertility, pregnancy, breastfeeding, and children's health. Information is provided to help employers, workers, and healthcare providers learn how they can keep job hazards from impacting reproductive health.

### **New Jersey Right to Know Hazardous Substance Fact Sheets** ([web.doh.state.nj.us/rtkhsfs/indexfs.aspx](http://web.doh.state.nj.us/rtkhsfs/indexfs.aspx))

This website provides workplace safety and health information in plain language, including information on reproductive health for over 1,600 workplace chemicals (many also in Spanish).

## Resources for Healthcare Providers

### **FASD Toolkit for Pediatric Primary Care Clinicians** ([www.aap.org/fasd](http://www.aap.org/fasd))

AAP's FASD Toolkit for pediatric primary care clinicians was developed to serve as the framework for the medical home management for children with FASDs. The toolkit provides tools and resources for primary care clinicians to equip them to better meet the special needs of these children and families.

### **Smoking Cessation for Pregnancy and Beyond: A Virtual Clinic**

(<https://www.smokingcessationandpregnancy.org/>)

This website is an online training for healthcare professionals who will be assisting their female patients in quitting smoking, particularly those who are pregnant or in their child-bearing years. The program offers various learning tools, including interactive case simulations, mini-lectures, and interviews with real patients.

*Additional resources, including condition-specific information, are available on the NBDPN website at [www.nbdpn.org](http://www.nbdpn.org).*

## CHOOSE A HEALTHY LIFESTYLE

One of the best ways for women to prepare for healthy pregnancies and healthy babies is by adopting healthy habits before becoming pregnant. By adopting these habits, women are showing their love to their future babies and also to themselves. Even if a woman is not actively planning a pregnancy, getting healthy can help boost her health and her mood. Healthier women are less likely to have problems with pregnancy, such as gestational diabetes, miscarriage, or preterm labor. Likewise, their babies are less likely to have problems such as preterm birth, low birth weight, high birth weight, stillbirth, and birth defects. Getting healthier involves taking steps such as eating a healthy diet, maintaining a healthy weight, and addressing chronic health conditions, such as diabetes.



### Key messages

- **Control diabetes:** Poor control of diabetes during pregnancy increases the chance for birth defects and other problems for your baby. It can cause serious complications for you, too.
  - **What you can do:** If you have diabetes and want to get pregnant, it is important for you to get and keep your blood sugar in control (i.e. when your Hemoglobin A1c level is within the limits set by your healthcare provider). If you've never had a diabetes test and want to learn more about the symptoms, visit [www.cdc.gov/diabetes/](http://www.cdc.gov/diabetes/). If you think you might be at risk, talk to your doctor.
- **Reach and maintain a healthy weight:** Obesity increases a pregnant woman's risk that her baby will have a serious birth defect. Also, people who are overweight or obese have a higher risk for many serious conditions, including complications during pregnancy, heart disease, type 2 diabetes, gestational diabetes, and certain cancers (endometrial, breast, and colon).
  - **What you can do:**
    - **Eat a healthy diet:** Eat healthy foods that include a diet rich in fruits, vegetables, whole grains, low-fat dairy, lean proteins, and healthy fats and oils.
    - **Be physically active:** Get at least 150 minutes (2 hours and 30 minutes) per week of moderate aerobic activity, such as a brisk walk, before and during pregnancy.
- **Get mentally healthy:** Mental health is how we think, feel, and act as we cope with life. Everyone feels worried, anxious, sad, or stressed sometimes. However, if these feelings do not go away and they interfere with your daily life, get help. Untreated depression can increase the risk of pregnancy complications and postnatal depression, so it is important to seek help before and during pregnancy.
  - **What you can do:** If you are worried about the way you have been feeling, it is important to tell a doctor or nurse about your concerns. Many women feel this way... you are not alone. There are treatments to help you feel better. Talk to your doctor so you can feel like yourself again.
- **Prevent infections:** Some infections that a woman can get during pregnancy can be harmful to the developing baby and can even cause birth defects. Such infections can include sexually transmitted diseases like chlamydia, gonorrhea, or syphilis; vaccine preventable diseases like rubella (also called German measles), pertussis (also called whooping cough), and the flu; infections caused by consuming

undercooked meat or unpasteurized foods like listeria; or other infections that you can get from forgetting to wash your hands.

- **What you can do:** Talk to your doctor about vaccinations. Wash your hands often with soap and water. Get tested for sexually transmitted diseases (STDs), such as HIV and hepatitis B, and protect yourself from them. Cook your meat until it's well done and avoid unpasteurized foods.

## Resources

### **National Diabetes Information Clearinghouse: Pregnancy**

([www.diabetes.niddk.nih.gov/dm/pubs/pregnancy/](http://www.diabetes.niddk.nih.gov/dm/pubs/pregnancy/)) This website links to a number of resources and information on how to take care of yourself during pregnancy if you have diabetes.

### **Text4Baby** (<https://www.text4baby.org/>)

Text4baby is a free cell phone text messaging service for pregnant women and new moms. Text messages are sent three times a week with information on how to have a healthy pregnancy and a healthy baby. Sign up today.

### **CDC Physical Activity for Healthy, Pregnant and Postpartum Women**

([www.cdc.gov/physicalactivity/everyone/guidelines/pregnancy.html](http://www.cdc.gov/physicalactivity/everyone/guidelines/pregnancy.html)) This CDC webpage explains physical activity guidelines and gives suggestions for healthy types of exercise for pregnant women.

### **Mayo Clinic Pregnancy and Exercise**

([www.mayoclinic.org/healthy-living/pregnancy-week-by-week/in-depth/pregnancy-and-exercise/art-20046896](http://www.mayoclinic.org/healthy-living/pregnancy-week-by-week/in-depth/pregnancy-and-exercise/art-20046896)) This website describes the importance of staying active during pregnancy and making sure to get approval of those activities from a healthcare provider. They suggest various types of physical activity and ways to stay motivated.

### **March of Dimes Eating and Nutrition During Pregnancy** ([www.marchofdimes.org/pregnancy/eating-healthy-during-pregnancy.aspx](http://www.marchofdimes.org/pregnancy/eating-healthy-during-pregnancy.aspx))

This website provides helpful information on how to eat healthy during pregnancy, including an example menu to help plan healthy meals as well easy-to-understand guidelines about different types of foods and serving sizes.

### **CDC Depression & Reproductive Health** ([www.cdc.gov/reproductivehealth/Depression/Treatments.htm](http://www.cdc.gov/reproductivehealth/Depression/Treatments.htm))

Learn the steps to seek help for depression. This website provides a checklist of questions to help you talk to your healthcare provider about these difficult issues. It also provides links to other resources for more information.

### **NIH Women and Depression: Discovering Hope**

([www.nimh.nih.gov/health/publications/women-and-depression-discovering-hope/index.shtml](http://www.nimh.nih.gov/health/publications/women-and-depression-discovering-hope/index.shtml))

This NIH website explains what depression is, signs and symptoms, causes, and potential treatment options. Links to where to go for help are also included.

### **Depression During & After Pregnancy: A Resource for Women, Their Families, & Friends**

([www.mchb.hrsa.gov/pregnancyandbeyond/depression/index.html](http://www.mchb.hrsa.gov/pregnancyandbeyond/depression/index.html))

This website begins to explain the possible causes for depressive feelings—and more importantly—how to find the help you need. A pdf booklet is available as a resource for more information and to let women know they are not alone.

*Additional resources, including condition-specific information, are available on the NBDPN website at [www.nbdpn.org](http://www.nbdpn.org).*

## TALK TO YOUR HEALTHCARE PROVIDER

Whether you are planning to become pregnant or not, talk to your healthcare provider about reproductive and preconception health care. Your doctor will want to discuss your personal and family health history and any medical conditions you currently have that could affect a pregnancy. He or she may make suggestions to improve your health. He or she also may discuss any previous pregnancy problems you may have had, medicines that you currently are taking, vaccinations that you might need, and steps you can take before pregnancy to prevent certain birth defects.

### Key messages

- **Discuss all medications:** Taking certain medications before or during pregnancy might cause serious birth defects for your baby. While some medications are known to be harmful when taken during pregnancy, we don't know the safety or risk of most medications. The effects depend on many factors, such as how much medication is taken, when during the pregnancy the medication is taken, other health conditions a woman might have, or other medications a woman takes.
  - **What you can do:** Talk to your healthcare provider or pharmacist about any medications you are taking or thinking about taking. These include prescription and over-the-counter medications, and dietary or herbal supplements. Talking to your doctor before making any serious medication changes is essential.
- **Talk about family history:** Collecting your family's health history can be important for your child's health. You might not realize that knowing about your sister's heart defect, your mother's miscarriage, or your cousin's sickle cell disease can give your doctor important information that may affect your pregnancy. Based on your family history, your doctor might alter your care or refer you for genetic or nutritional counseling.
  - **What you can do:** Learn about your family's health history, including their pregnancy and reproductive history. Complete one of the family history tools described below to help initiate a conversation with your doctor.



### Resources for Women/Families

#### **Mother to Baby: Medications & More During Pregnancy and Breastfeeding** ([www.mothersbaby.org](http://www.mothersbaby.org))

MotherToBaby, a service of the non-profit Organization of Teratology Information Specialists, is dedicated to providing evidence-based information to mothers, health care professionals, and the general public about medications and other exposures during pregnancy and while breastfeeding.

#### **FDA Office of Women's Health Medications & Pregnancy**

(<http://www.fda.gov/forconsumers/consumerupdates/ucm223320.htm>)

This website compiles information on pregnancy registries, which monitor exposure to specific medications during pregnancy. The FDA Office of Women's Health has also developed helpful fact sheets about medications in pregnancy, which are available in [English](#) and [Spanish](#). They've also developed a tool in English and Spanish to help you keep a record of the medicines you use.

**My Family Health Portrait** (<https://familyhistory.hhs.gov/fhh-web/home.action>)

Using My Family Health Portrait you can record and print the health history for you and your family in order to share that information with your family members or your healthcare provider. You can also save your family health history so you can update it over time. Developed by the Surgeon General, these tools can help you talk with your healthcare provider about how your family's health may relate to your own.

**Does it run in the family?** ([familyhealthhistory.org/](http://familyhealthhistory.org/))

A tool from the Genetic Alliance, *Does It Run In the Family?*, helps you create personalized booklets to start conversations about health in your family and community. The goal of the booklets is for individuals, families, and communities to use their new knowledge about family health history to become healthier and to increase their communication to others about health.

**Genes in Life** ([www.genesinlife.org/](http://www.genesinlife.org/))

Genes in Life is a place to learn about all the ways genetics play a role in your life. On this site you will learn how genetics affects you and your family, why you should talk to your healthcare providers about genetics, how to get involved in genetics research, and much more.

**Resources for Healthcare Providers****American College of Obstetricians and Gynecologists** ([www.acog.org](http://www.acog.org))

The ACOG Web site offers information you can trust from the leading experts in women's health care resources including a [physician directory](#) and several patient-focused [fact sheets](#) with information on contraception, nutrition during pregnancy, and reducing your risk of birth defects.

**CDC's Treating For Two** ([www.cdc.gov/treatingfortwo](http://www.cdc.gov/treatingfortwo))

CDC's Treating for Two initiative focuses on better research and reliable guidance to help women and their healthcare providers make informed decisions about treating health conditions during pregnancy. This website discusses CDC's research and activities as well as what we know about medication use during pregnancy and what you should do regarding your medications if you are pregnant or plan to get pregnant.

**Family History Tool for Pediatric Providers** ([www.geneticsinprimarycare.org/YourPractice/Family-Health-History/Pages/Family-History-Tool-for-Pediatric-Providers.aspx](http://www.geneticsinprimarycare.org/YourPractice/Family-Health-History/Pages/Family-History-Tool-for-Pediatric-Providers.aspx))

The Genetics in Primary Care Institute (GPCI) of the American Academy of Pediatrics (AAP), the National Coalition for Health Professional Education in Genetics (NCHPEG), March of Dimes, Genetic Alliance, Partners Healthcare, and Health Resources and Services Administration have developed an electronic pediatric family history tool. The tool aims to support the provider in family history risk assessment, genetic evaluation and identify additional evaluation, preventative services, or personalized management for children who are at increased risk for health conditions based on family health history.

*Additional resources, including condition-specific information, are available on the NBDPN website at [www.nbdpn.org](http://www.nbdpn.org).*