

## Birth Control for Women with Congenital Heart Disease

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Of the predicted 1.3 million adults with congenital heart disease (CHD) in the United States, more than half are women, and as one of these, you need to be able to plan if and when to have children.

The risk of pregnancy for women with CHD ranges widely. For some women, their risk is no different from that of the general population. For others it carries a prohibitive risk of death for the woman and/or the baby. For these women, birth control is more than just a method to conveniently space babies. It may prevent a life-threatening pregnancy.

This handout discusses the available methods of birth control (also called contraception) available in the United States and describes which methods may be suitable for women with different types of CHD. This is not a definitive guide. Each woman has her own risks. You should ask your adult congenital heart disease (ACHD) doctor which method is best for you.

### Who can advise me about contraception?

Finding a doctor who knows about both heart defects and birth control is a problem for many women with CHD. Many family doctors know about birth control but not about complex CHD; and many ACHD doctors don't know a lot about the types of birth control. As a result, women with CHD may be denied birth control options, leaving them with a greater chance of a high-risk pregnancy. They also may be prescribed a birth control method that carries a risk to their heart condition. Thus, all women with CHD should have access to an ACHD specialist who is also an expert in contraception.

### What do I need from my contraceptive?

Every woman with CHD needs to speak to an ACHD cardiologist who knows the latest information on birth control, pregnancy, and CHD. Advice should be specific to the individual. Risks can vary greatly even among women with the same diagnosis. This is why personal advice is so important. For every method of contraception, two factors must be considered:

- How effective is it? (i.e., How well does it work?)
- How safe is it for my heart?

Many women also use hormonal contraceptive options to help regulate their menstrual cycles, to reduce menstrual blood loss, or to treat intrusive menstrual disorders such as PMS, endometriosis, polycystic ovary syndrome, etc.

### What methods are available?

There are four main types of birth control methods available:

1. Barrier methods (i.e., condom, diaphragm)
2. Hormonal methods, including:
  - Combined oral contraceptive pill (estrogen and progestin)
  - Combined hormonal vaginal ring (NuvaRing)

- Progestin-only options:
  - Pills (norethindrone): Micronor, Nor QD, and generics
  - Emergency contraception: Plan B One-Step (levonorgestrel)
  - Long-acting contraceptives, such as:
    - Injection: Depo-Provera lasts three months
    - Implant: Nexplanon lasts three years
- 3. Intrauterine devices
  - Traditional copper IUD (ParaGard): Lasts for 10 years
  - Progestin-releasing IUD: Mirena lasts five years; Skyla lasts three years
- 4. Sterilization (surgical and non-surgical)

### Can I use a condom or diaphragm by itself?

These are safe for all users. Condoms have the added advantage of preventing STDs (sexually transmitted diseases). The effectiveness of these “operator-dependent” methods depends on consistent use, so they may not be a good choice if you are at high cardiac risk from an unplanned pregnancy.



### Can I take birth control that contains estrogen?

The combined oral contraceptive pill is one of the most popular methods of birth control. It is reliable and causes few side effects. It can also make your period more regular. However, the estrogen in the pill increases the risk of blood clots (thrombosis). Women whose heart condition or general health puts them at risk of blood clots should not use it. The vaginal ring (NuvaRing) is self-inserted and left in place for three weeks. It provides combined hormonal contraceptive benefit. Risks are similar to combined oral contraceptive pills.

The risks of the estrogen-containing birth control will depend on your heart condition. Estrogen should be avoided by women with the following:

- History of blood clots (thrombosis) or a known blood clot disorder
- Poor heart function
- Complex Fontan repairs, particularly older version Fontans
- Cyanosis (being “blue”)
- High lung pressures (pulmonary hypertension)
- Smokers over age 35
- Uncontrolled high blood pressure
- History of heart attack or stroke

Contraceptives with estrogen should be used with caution if you have other risk factors for blood clots. It is important that your ACHD doctor approves your use of them. These risk factors include migraines with aura, artificial valves, and certain kinds of heart rhythm problems. Note that contraceptive patches with estrogen (Ortho Evra) have a higher risk of clots than combined oral birth control pills. They should not be used by most women with CHD. Estrogen-containing contraceptives given by injection are no longer available in the United States.

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*However complicated your heart, there is a method that is safe and effective for you.*

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### **What progestin-only birth control can I use?**

Progestin-only methods are safe for all heart conditions. Different methods vary in how effective they are. They also differ in how they are given. Progestin-only contraceptives often cause irregular bleeding. This is especially true in the first months of use. Over time women who use these methods may stop having menstrual bleeding altogether.

### **Can I use the progestin-only pill?**

The progestin-only pill is safe, but not very effective due to the need for exact dosing every 24 hours. Unplanned pregnancies can occur when dosing is delayed by only a few hours. It is a poor choice if it is important to prevent a risky pregnancy.

Cerazette is a progestin-only pill. Available in the U.K. but not yet in the United States, it is considered to be as effective as the combined hormonal birth control pill. This should be a good option if/when it becomes available in the United States.

### **Can I use the morning-after pill?**

Emergency contraception (Plan B One-Step) is safe for all women with CHD. It only contains progestin (levonorgestrel), so there is no added blood clot risk associated with pills with estrogen. If you have a birth control accident, you can still safely prevent a pregnancy. In the United States, Plan B One-Step is now approved as a non-prescription contraceptive for all females of child bearing potential, eliminating any age restriction. This is widely available in most markets or drug stores. The dose is 1.5 mg. The single tablet should be taken within 72 hours of unprotected sexual intercourse. Plan B has been found to be less effective at preventing pregnancy in overweight or obese women.

### **Can I use an injectable or implantable method?**

Depo-Provera is a highly effective injectable method of contraception. It must be given consistently every three months. It is safe for all women with CHD. The main side effect is menstrual irregularities and spotting, as well as weight gain. Menstrual bleeding may stop altogether after the first few months of use. It is important to know that fertility returns to normal rapidly if you stop taking it. You can get pregnant even before your period returns.

Nexplanon is an extremely effective implantable contraceptive method. Safe for all women with CHD, it is a small plastic rod

inserted under the skin of the upper arm. Side-effects include headache, acne, and weight gain. It lasts for three years.

### **Can I use an IUD?**

A copper intrauterine device, or IUD (ParaGard), and a progestin-releasing IUD (Mirena or Skyla) are very effective and safe forms of birth control. The copper IUD carries a higher risk of increased uterine bleeding and infection. If you have an active STD, abnormal Pap smear, or pelvic infection, you should not use either of these. There is also pain when the IUD is put in, particularly in women who have not previously given birth. Some women feel faint during this procedure. Before having the IUD put in, if you have complex CHD (i.e. Fontan, pulmonary hypertension) you should ask your gynecologist to talk to your ACHD cardiologist. This is to see if there are precautions that should be taken to make the insertion free of complications.

Mirena and Skyla IUDs release progestin, which makes the uterine lining less susceptible to pregnancy. Progestin can also slow and eventually stop menstrual bleeding. Skyla was FDA-approved in 2013. It is slightly smaller in size than the Mirena. It is more comfortable during insertion in women who have a smaller cervix or uterine cavity. Skyla contains a smaller amount of progestin—it is only effective for three years. Mirena is effective for five years. IUDs should be put in by a gynecologist who is skilled with this procedure.

### **What about sterilization?**

If you have decided to never have a baby, this is an option. Surgical sterilization (tubal ligation or tubes tied) is done under general anesthetic. A telescope is put into a small incision near the navel (laparoscope). This carries a risk if you have severe CHD. A new sterilization technique called Essure has fewer risks than surgical sterilization. It has similar risks as the insertion of the IUD. Microinserts are inserted via the vagina to block the fallopian tubes. After the procedure, it takes about three months for the fallopian tubes to completely close. Other birth control methods (condoms) should be used during this time. To make sure that the Essure procedure has worked, you will need to have a special imaging procedure three months later. In this, contrast is injected into the tubes to confirm that the tubes are blocked. This can be a good option for women with complex CHD. However, long-term contraception methods such as implantable progestin or an IUD should be explored first.

### **What about sterilization for my partner?**

This is 100% safe for you, but only if you have no other sexual partners. Like all sterilization, it is not 100% effective. You and your partner also need to consider the difficult issue of how he might feel in the future if something happened to you.

### **And finally . . .**

There are many birth control methods available for women with CHD. This means that however complicated your heart, there is a method that is safe and effective for you. If your doctors cannot advise you or refer you to someone who can, please contact the Adult Congenital Heart Association.

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