

## Birth defects - drugs and medications

Certain drugs such as alcohol, some illegal drugs, and some prescription and over-the-counter medications are known to cause birth defects if taken during pregnancy. Drugs that can cause birth defects are called 'teratogens'. A teratogen is a substance that interferes with the normal development of a fetus.

### Risk factors

Medical science cannot always predict how exposure to a teratogenic drug will affect a fetus. The potential for harm depends on a range of factors including:

- The type of drug
- The size of the dose
- How often it's taken
- The stage of fetal development (gestational age) at the time of drug exposure
- The individual response of the fetus to the drug
- Other factors, such as maternal diet or illness.

### Birth defects happen regardless of medication or drug use

The risk of a birth defect for any baby is about four per cent, regardless of the circumstances during pregnancy. This means that even a woman who strictly avoids drugs while pregnant may still have a baby with a birth defect. Discuss any concerns with your doctor, pharmacist or midwife.

### Teratogenic drugs

Each of the following drugs or drug groups may cause birth defects in a developing fetus:

- ACE (angiotensin converting enzyme) inhibitors
- Angiotensin II antagonist
- Isotretinoin (an acne drug)
- Alcohol
- Cocaine
- High doses of vitamin A
- Lithium
- Male hormones
- Some antibiotics
- Some anticonvulsant medications
- Some cancer-fighting medications
- Some drugs that treat certain rheumatic conditions
- Some thyroid medications
- Thalidomide
- The blood-thinning drug warfarin
- The hormone diethylstilbestrol (DES).

This list is not complete. For example, the teratogenic effects of illegal drugs (such as cannabis or amphetamines) are not clear because of the lack of medical studies.

### Pregnancy risk classification for medicines

Medicines in Australia are given a risk category by the Australian Drug Evaluation Committee for drugs used in pregnancy according to their documented safety information. This category applies only to recommended doses.

The classifications include:

- **A** – Drugs that have been taken by a large number of pregnant women without any proven increase risk of birth defect.
- **B** – Drugs that have been taken by only a limited number of pregnant women. Human data is lacking and they are further categorised based on available data from animal studies.
- **B1** – animal studies have not shown any increased risk.
- **B2** – animal studies are limited, but there does not seem to be any increased risk.
- **B3** – animal studies show an increased risk, but it is not clear if this risk applies to humans.
- **C** – Drugs that, due to their effects, may cause harm to the fetus without causing birth defects. These effects may be reversible.
- **D** – Drugs that have caused or may cause birth defects; however, the health benefit may outweigh the risk.
- **X** – Drugs that have a high risk of birth defects and should not be used during pregnancy.

See your doctor or pharmacist for further information and explanation.

## Some women must take medications during pregnancy

About eight per cent of all pregnant women need to take ongoing medication for an existing health problem. For example, chronic health conditions such as epilepsy, high blood pressure, diabetes, thyroid conditions and asthma require management with medications.

For some pregnant women, illness (such as an acute respiratory infection like pneumonia) or pregnancy complications (such as pre-eclampsia) also require medication.

## It can be dangerous if a woman who needs medication stops taking it

It can be dangerous for a pregnant woman to avoid prescription drugs if she has a medical condition or becomes ill. For example:

- If a pregnant woman who has asthma stops taking her medication, there is a risk of slowing the growth of her unborn baby.
- If a pregnant woman who has epilepsy stops her anti-epileptic medications, she may have an increased risk of having seizures and complications to her pregnancy and unborn baby.
- Poorly managed maternal diabetes increases the health risk for the unborn baby.

Without treatment with prescribed drugs, the health and welfare of both the mother and her unborn baby could be at increased risk. Discuss any concerns with your doctor or midwife.

## General recommendations

Be guided by your doctor or midwife, but general recommendations include:

- Give your doctor or midwife a list of all drugs you take or have recently taken, including prescription and over-the-counter medicines, nutrition supplements and complementary therapies (such as herbal medicine). Tell your doctor or midwife if you smoke, drink alcohol or take illegal drugs, even if you only take them occasionally or socially.
- Remember that non-prescription drugs and complementary medicines can be harmful to the unborn baby.
- Ask your doctor or midwife for advice or seek counselling if you need help to stop taking alcohol or other drugs.
- If you take medication to manage a chronic illness, don't stop or alter the dose without the knowledge and consent of your doctor.
- If you are concerned about your long-term medication, the doctor may, in some cases, be able to prescribe a similar medication that does not have any known effects on the fetus.

- Take folic acid supplements prior to conception and during the first trimester as directed by your doctor. Folic acid is known to reduce the risk of neural tube defects in the developing baby.

## Where to get help

- Your doctor
- Midwife
- Obstetrician
- Pharmacist
- Drug and alcohol counsellor
- DirectLine Tel. 1800 888 236 – for counselling and referral
- The Royal Women's Hospital Drug Information Centre Tel. (03) 9344 2277
- Australian Drug Foundation Tel. 1300 85 85 84

## Things to remember

- Drugs that can cause birth defects are said to be 'teratogenic drugs'.
- Medical science cannot always predict how exposure to a teratogenic drug will affect a developing fetus.
- It can be dangerous for a pregnant woman to stop taking prescription drugs if she has a medical condition or becomes ill. Without treatment, the health and welfare of both the mother and her unborn baby could be at risk.

**This page has been produced in consultation with, and approved by:**

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