PREGNANCY

Who why what when where and how it all works
A young person’s guide
WHO GETS PREGNANT?

In Great Britain, in 2000, about 838,000 women became pregnant, resulting in about 658,000 live births. About 46,000 girls aged under 18 became pregnant.

Worldwide, 120 million acts of sexual intercourse take place a day, resulting in 910,000 conceptions and 400,000 live births.

About 70 percent of women in the world use birth control (contraception). In some countries almost no one has access to reliable contraception; in others almost everyone does. Even in countries such as the UK, where contraception is easily obtainable, more than half of all pregnancies are unplanned.

WARNING! THESE MYTHS ARE NOT TRUE!

A pregnant woman shouldn’t hang the washing out because the cord might pull and strangle the baby.

To prepare to feed a baby a woman should rub her nipples with a toothbrush to toughen them up.

A pregnant woman needs to eat for two.

You can’t get pregnant if you have sex standing up.

You can tell the sex of a baby by the shape of the bump.

Pregnant women need to rest and not do anything strenuous.

WARNING! THESE MYTHS ARE NOT TRUE!
A woman has two ovaries, one on each side of her womb (uterus). These contain her eggs (ova). She is born with all her eggs in place.

**How does it all work?**

A man has two balls (testicles). Sperm are made continuously in great numbers inside each testicle and stored in the epididymis (a small tube at either side of each testicle) for a few weeks until they are fully mature. Sperm are damaged by heat, so the balls are carried outside the body in a soft bag of skin (the scrotum) to keep cool.
What is a woman's Menstrual Cycle?

The menstrual cycle is from the first day of a period until the day before the next period starts. The length of the cycle varies—it can be as short as 21 days or as long as 40 days. Whatever the length of the cycle, ovulation will happen about 12–16 days before the start of the next period.

Even before birth, a woman has 1–2 million tiny undeveloped eggs in her ovaries—much smaller than this dot.

By puberty the number of eggs is halved. Only around 400 eggs will actually be released.

These eggs all develop—some will be released for fertilisation once a woman reaches puberty and begins her menstrual (monthly) cycle.

Each month, the brain sends a chemical message to the ovaries. This causes 12 to 20 eggs to grow in one or other ovary. At the same time the hormone oestrogen begins to thicken the lining of the womb.

Usually one egg becomes larger than the others and is released into the fallopian tube by the ovary. This is called OVULATION.

Ovulation triggers a second hormone, progesterone, to continue to thicken the lining of the womb (endometrium) in preparation for a fertilised egg.

The egg lives in the fallopian tube for 12–24 hours. If it is not fertilised and does not implant to start a pregnancy, levels of hormones fall, the womb lining breaks up and a period happens.

What about Sperm?

At puberty, boys start to make sperm in their balls (testes): Each ball (testicle) produces about 2,000 sperm per second, or 150–1,000 million a day. They are stored in the testicle for 4 to 6 weeks while they develop ready for ejaculation.

DID YOU KNOW? Sperm (cells much bigger than red blood cells) swim at a speed of 1.3mm per minute. That's roughly the same relative speed as a human swimming.
WHAT IS CONCEPTION?

When a man and a woman have sexual intercourse the man's penis fits into the woman's vagina.

Sperm are released through the penis into the vagina. They swim through the woman's cervix, into the womb, and then into the fallopian tubes.

If there is an egg in the tube, hundreds of sperm swim up to reach it.

1. One sperm may attach itself to the egg wall and slowly penetrates the wall. It takes about 3 hours for the sperm to enter the egg.

Once the sperm is inside, the egg wall hardens to make it impossible for other sperm to get in.

2. The egg has now been fertilised and moves down the fallopian tube towards the womb.

3. During the short journey the fertilised egg splits into 2 cells, then into 4, 8, 16 and so on.

4. About 3–4 days after fertilisation, the egg is now 64 separate cells.

5. About 8 to 10 days after fertilisation, the fertilised egg begins to attach itself to the thick nutritious womb lining. Implantation of the fertilised egg has taken place. It is now called an embryo and the pregnancy has begun.

When the man comes (ejaculates), the sperm travel from the balls through the sperm ducts to the penis. As they travel, fluids are added to them to produce a mixture called semen. He ejaculates about a teaspoonful of semen containing up to 300 million sperm. Just one drop, pinhead size, contains around 1,500 sperm!

Glands in the woman's vagina and the man's penis produce secretions which make it easier for the penis to enter the vagina. A woman can get pregnant even if the man withdraws before ejaculating. This is because the fluid which leaks out of the penis before he comes ("pre-cum") can contain sperm.
**When is a woman fertile?**

To get pregnant, a woman needs to have sex around the time that she ovulates. Her fertile time lasts for 8–9 days. But it’s not always easy to work out when this is – especially if her periods aren’t regular.

A woman ovulates 12–15 days before the start of her next period. Although the released egg will only live for 12–24 hours, sperm can live for up to 7 days. If sperm are already present before ovulation, they may meet the egg when it is released.

Learning to recognise the fertile and infertile times of the menstrual cycle can help to plan or prevent a pregnancy. This needs to be taught by a trained natural family planning teacher. Different signs or indications are observed and recorded every day of the month. These are:

- changes in body temperature
- changes in cervical secretions
- menstrual cycle dates.

Fertility in women begins to decline when they are in their 30s, until after the menopause, when periods usually stop.

Men can be fertile for longer. Some men in their 70s have fathered babies.

**What is contraception?**

To prevent pregnancy (contraception) involves using methods that:

- prevent sperm from meeting an egg
- stop an egg being produced
- identify the fertile and infertile times of a menstrual cycle.

There are 13 different contraceptive methods. These are:

- The combined pill
- The progestogen-only pill
- Male condom
- Female condom
- Diaphragms and caps
- Natural family planning
- Intrauterine device (IUD)
- Intrauterine system (IUS)
- Contraceptive injections
- Contraceptive implants
- Vasectomy
- Female sterilisation
- Emergency contraception.

Condoms protect men and women from both unwanted pregnancy and sexually transmitted infections (STIs).

For more information on the different types of contraception available – see fpa’s booklet Is Everybody Doing It? or contact your doctor, young people’s clinic, or fpa (see back page).
**How do people prepare for pregnancy?**

Smoking, drinking, drugs, poor diet, and sexually transmitted infections can damage fertility in men and women, and may damage the health of the mother during pregnancy, or her baby when it's born.

**SMOKING**

- **MEN** who smoke have weaker erections and less healthy sperm. **WOMEN** who smoke, or whose partners smoke, or who are exposed to smoke at work, are less likely to conceive. If they become pregnant, they may have greater complications during labour and are more likely to have a premature birth or stillbirth.

- **STOPPING SMOKING** may be the most important thing parents can do for the health of their baby.

**EATING**

A well balanced diet for both men and women wanting to start a pregnancy includes:

- lots of fruit and vegetables
- plenty of starchy carbohydrates such as bread, cereal, pasta
- protein such as beans, pulses, meat, fish, cheese and eggs.

**FOLIC ACID** can reduce risks to the spine of the fetus. Women need to take folic acid supplements three months before trying for a baby and during the first 12 weeks of pregnancy. Good natural sources of folic acid are:

- green leafy vegetables
- breakfast cereals
- some bread.

**RUBEMLA**

60% of babies will have severe problems if their mother contracts Rubella (German measles) in early pregnancy so it's important that women who haven't had it are vaccinated against it before trying to conceive. This vaccination is now routinely offered to young babies.

**DRINKING**

**ALCOHOL** may increase the frequency of sex - a lot of pregnancies happen because people get carried away - but heavy drinking can reduce fertility and even make men impotent.

**DRINKING TOO MUCH** during pregnancy can damage the fetus. Women trying to become pregnant, or who are pregnant, should avoid getting drunk and should probably drink no more than 1 or 2 units, no more than once or twice a week. A unit is a single pub measure of spirits, a small glass of wine, or half a pint of beer, lager or cider. A lot of women give up alcohol altogether during pregnancy.

**INFECTIONS**

Sexually transmitted infections (STIs) can affect fertility in men and women and an untreated one can be passed on to the fetus. Some infections can't be cured but treatment can be given to try and prevent the baby getting the infection. Anyone who thinks they may have an infection should go to a genito-urinary (GUM) clinic or GP.