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## Overview of fertility and the biological clock

### Key points

- ◆ About one in seven couples have difficulty in getting pregnant.
- ◆ Infertility is defined as the inability to get pregnant after more than 12 months of trying.
- ◆ A woman is born with her lifetime's supply of eggs within her ovaries.
- ◆ A woman's chances of getting pregnant decrease and her chances of miscarriage increase with advancing age.
- ◆ Men produce sperm continuously throughout their lifetime; from initiation to maturity takes about 64 days.

### The female biological clock, age, and the chance of getting pregnant

You are not alone if you are having difficulty getting pregnant. It is estimated that one in seven couples have difficulty getting pregnant. Worldwide, 80 million couples have some difficulty in getting pregnant. Many couples prefer to keep this fact private, and so it is not until you start talking about your problems that you discover that some of your friends and family may be or have been in a similar situation.

It is a sad fact that some couples may never have a baby, yet there are many who go on to have a family successfully. For some couples, it is simply a question of time. For others, pregnancy may not happen. The uncertainty of whether pregnancy will or will not happen can add to the stress, with each month becoming a rollercoaster with every period. Unfortunately, there isn't a test that predicts if and when you will conceive.

It is normal to take up to 12 months to get pregnant, and sometimes up to 2 years without there being a problem. If you are young, your doctor may simply advise you to try a little longer.

You should be referred without delay if you or your partner are 35 or older, your period cycle is less than 26 days or more than 35 days, you don't have periods at all, you have had previous gynaecological problems such as **endometriosis**, **ectopic pregnancy**, or **pelvic infection**, or you have been trying for a baby for more than 3 years.

### How long should it take to get pregnant?

If 100 couples (woman younger than 30) all decide to start trying for a family at the same time:

- ◆ 20 couples will be pregnant within the first month
- ◆ 70 couples will be pregnant within the first 6 months
- ◆ 85 couples will be pregnant within the first year
- ◆ 90 couples will be pregnant within the first 18 months
- ◆ 95 couples will be pregnant within the first 2 years

Doctors define **infertility** as the inability to get pregnant after 12 months of trying. **Primary infertility** is the term used for couples who have never conceived a pregnancy. **Secondary infertility** refers to couples who may have had a previous pregnancy either together or in a previous relationship.

To be able to understand why you may be having difficulty and what treatment involves, you will need to know some basic facts about the body.

### The female biological clock

A woman is born with her lifetime's supply of egg sacs within her ovaries. These mature and ovulate, but no more are produced. This simple fact explains why women have a 'biological clock' and men don't. It also explains the increasing chance of having a baby with Down's syndrome as a woman approaches 40. This is an effect of ageing on the ovary and the eggs.

The chance of getting pregnant is reduced and the risk of miscarriage increases with age. That's not to say that older women will not get pregnant. Cherie Blair had Leo at the age of 45. The oldest woman recorded in the *Guinness Book of Records* to have a baby was 56, although there is some doubt about her age.

## Age statistics

- ◆ Under the age of 30, the chance of miscarriage is one in five.
- ◆ Women aged 35–39 are half as fertile as they were at age 25.
- ◆ Women over the age of 40 are half as fertile as they were at age 35 and the chance of miscarriage is one in two.

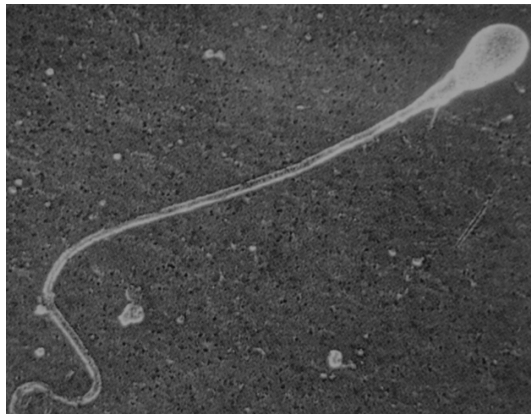
However, these are only averages. Your own particular case is unique and will affect the chance of getting pregnant.

## Men don't have a biological clock

Men produce sperm within the testicles throughout their lifetime. This is a continuous process. It takes about 64 days to produce a mature sperm. Men don't have a biological clock and can father children into old age. Several million sperm are present in a single ejaculate, yet it only takes one sperm and one egg to become pregnant (Figure 1.1).

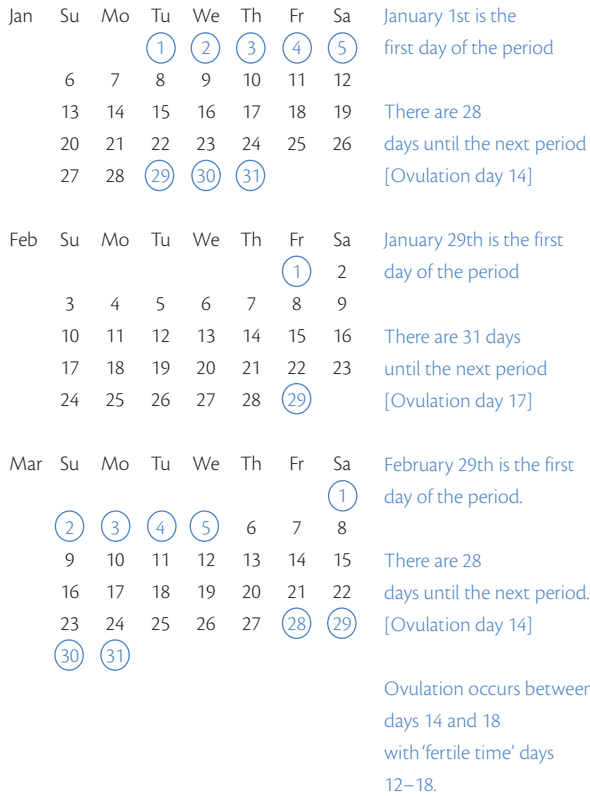
Viral illnesses such as flu, smoking and alcohol, and exposure to certain chemicals and medicines reduce the number of sperm. Because of the production time, this effect is seen 3 months later. The testicles also like to be cool, and tight clothes or jobs involving long periods of sitting, such as long-distance lorry driving, may reduce sperm production. Some experts recommend that men wear loose-fitting underwear and trousers.

✘ **Myth:** Having too much sex reduces your chance of getting pregnant.



**Figure 1.1** Magnified view of a mature sperm.

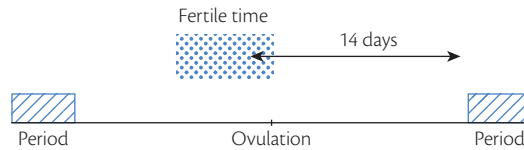
## Working out the day of ovulation



**Figure 1.2** Period diary showing cycle length and fertile time.

There are several tests on the market that enable a woman to detect when she is ovulating which can be bought over the chemist’s counter. They involve testing the urine for a hormone called **luteinizing hormone** (see Chapter 7).

Once the egg is ovulated, it lives and can be fertilized for 24–48 hours. The man’s sperm can stay alive and active for several days inside the woman’s body. For this reason, it is better to have sperm ‘ready and waiting’ for the egg, rather than trying to time the exact day of ovulation. Avoid using lubricants. If you need a lubricant, choose one that is water (aqueous) based.



**Figure 1.3** Your fertile time is the few days before ovulation. The number of days between the first day of your period and the day of ovulation will vary. The number of days between ovulation and a period starting (if you are not pregnant) is 14, give or take a day.

- ✘ **Myth:** You have to have sex exactly at the time of ovulation to get pregnant.
- ! **Fact:** Generally it is better to have sex as regularly and as often as possible when you are trying to get pregnant.

Your 'fertile time' is around ovulation. Sexual intercourse at other times in the month does not reduce your chances of pregnancy. Ovulation usually occurs 14 days before the expected period. This can be calculated in the following way.

You need to work out the number of days between your periods. Count the first day of your period as day 1. Work out the number of days between one period and the next. You may find that this number varies slightly. It is normal to have a period cycle of 26–35 days (Figure 1.2). Let us assume that you have a 30-day period cycle. The day of ovulation is usually 14 days before, give or take a day:

- ◆ for a 30 day cycle, the expected day of ovulation is day 16
- ◆ for a 34 day cycle, the expected day of ovulation is day 20
- ◆ and so on.

If you keep a temperature chart, your fertile time is the few days before your temperature rises (Figure 1.3).

In real life, the length of your period cycle may vary by a few days each month. This still means that you are ovulating. You can calculate the day of ovulation in your shortest and your longest cycle to know when your fertile time is.

It may seem as if you have been doing all of this, but still not getting pregnant. Not every egg is a good one and the sperm have to swim the equivalent of the Atlantic Ocean in treacle in order to fertilize the egg! Viewed this way, it is possible to see why pregnancy may take a little time to achieve.

