

AGE AND FERTILITY



THE SOCIETY OF
OBSTETRICIANS AND
GYNAECOLOGISTS
OF CANADA

www.sogc.org

education
education
education
education

Do you know how a mother's age can affect fertility, pregnancy and childbirth?

When to start a family is a very personal decision. The answer is different for everyone. Are you ready emotionally? financially? physically?

Thanks to the wide availability of contraceptives in Canada, we now have more control than ever over if and when we have kids, and how many we have. Many women are choosing to wait.

However, research shows that many women don't realize how quickly their fertility can drop, and how early that can start to happen. Many of us also don't know that fertility treatments cannot always make up for that decline.

There can be benefits to delaying child-bearing. You might want time to take advantage of valuable work, educational or personal opportunities. And, when you have kids later in life, you may be better prepared to cope with some of the challenges of pregnancy and parenting.

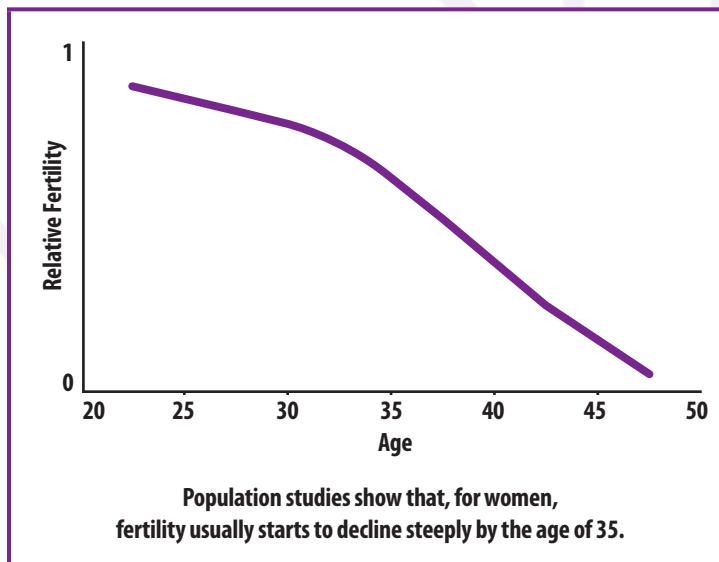
But, increased age can make it more difficult for your body. It is important for women and their partners to understand how age can affect fertility, pregnancy and childbirth, and to what extent medical technologies can help.

How does fertility change with age?

A woman's fertility begins to fall in her early to mid thirties. This varies from woman to woman; unfortunately, there is no way to reliably predict fertility decline. Women often lose their ability to conceive years before they have the first symptoms of menopause.

This gradual change in fertility is mostly due to a decrease in the *number* and *quality* of eggs in your ovaries. The loss of eggs begins even before you are born. An unborn female has 6 to 7 million eggs; at birth she has 1 to 2 million; by menopause, only a few hundred remain. The condition of your eggs also changes as you age; they have a higher rate of chromosomal anomalies, which increases your chances of early miscarriage.

There are also non-ovarian factors. As you get older, you are more likely to have experienced other medical problems – such as endometriosis, fibroids, tubal disease or polyps – which can reduce your fertility.



A trend towards later child-bearing in Canada

- More women over 30 are giving birth than in past generations.
- Women 35 and older account for 11 per cent of first-time mothers.
- Women aged 30 to 34 years are now having more children than any other age group.
- 31 per cent of 'first births' now occur to women between ages 30 and 34.

What about fertility treatments?

There are several medical technologies that can help some women get pregnant, although they cannot necessarily make up for age-related fertility decline. These are called *assisted reproductive technologies* or *ART*.

The best fertility treatment for a woman depends on her age and medical history. It's important to understand that these technologies can be invasive and expensive, can have undesired side effects or complications, and coverage by provincial health plans varies by province.

Ovarian hyperstimulation: Medication is used to stimulate your ovaries. This will cause your body to release more eggs than normal, increasing your chances of getting pregnant.

This is usually the first treatment that a woman struggling with infertility should try. However, the older a woman is, the lower her chance of pregnancy with this method. Older women, particularly those over 40, should consider IVF after only one or two unsuccessful cycles of ovarian hyperstimulation.

In vitro fertilization (IVF): Eggs are removed from your ovaries and are fertilized with sperm in a laboratory. A fertilized egg is then transferred to your uterus, with the hope that it will implant itself.

IVF offers higher pregnancy and live birth rates than ovarian hyperstimulation. Like ovarian hyperstimulation, the chances of success diminish with age.

Oocyte donation: An egg is provided by a female donor, usually in her early thirties or younger. Once her egg has been fertilized in a laboratory, it is transferred to your uterus, with the hope that it will implant itself.

For a woman without many eggs left, this may be the only effective treatment; pregnancy rates associated with oocyte donation are significantly higher than those associated with ovarian hyperstimulation or in vitro fertilization alone.

Some pregnancy complications become more likely when you use assisted reproductive technologies, including the risk of having twins or triplets. Women carrying multiples have a higher risk of pregnancy loss, preterm birth and complications.

As an older mother, am I at risk for pregnancy complications?

Fertility isn't the only thing that changes with age. Women who become pregnant over the age of 35 have an increased risk of miscarriage, ectopic pregnancy, preeclampsia, hypertension, gestational diabetes, placental complications, intrauterine growth restriction, and caesarean section. Their babies are at increased risk of having low birth weight, chromosomal abnormalities and non-genetic malformations.

The good news is that many women over the age of 35 become pregnant and have healthy pregnancies and babies. Talking with your health-care provider before trying to conceive will help identify if you are at risk for any problems which can be prevented or treated in advance.

It is standard to offer all pregnant women, regardless of age, non-invasive screening for chromosomal anomalies using ultrasound and blood tests. Women whose screening tests suggest a high risk are then offered diagnostic testing such as amniocentesis and chorionic villus sampling.

I've been trying to get pregnant ...

If you have been trying to conceive and have not been successful, your doctor, nurse or midwife may refer you to a fertility specialist. For women who are under the age of 35, this is usually done after one year of trying to become pregnant. Women aged 35 to 37 should be referred to a specialist after 6 months of trying to become pregnant, and women who are 38 or older and are trying to conceive should be referred to a specialist without waiting.

One of the first things your health-care provider will check is your partner's fertility, by doing a sperm analysis. There are many causes of infertility – for both males and females – and not all are related to age.

Is there a test for infertility?

No. Several tests can be used to determine how many eggs are in a woman's ovaries. While these tests may be useful for determining if a woman is a candidate for assisted reproductive technologies, they have little reliability for predicting pregnancy.

What about the father's age?

The effect of a father's age on fertility and pregnancy are not as well defined as for maternal age. There is some research that suggests a decrease in fertility for men over 40, and an increase in genetic disorders for children of older fathers.

Further resources from the Society of Obstetricians and Gynaecologists of Canada

- Guidelines available at www.sogc.org:
 - Advanced Reproductive Age and Fertility
 - Delayed Child-bearing
- The book, "Healthy Beginnings: Giving your baby the best start from preconception to birth", available at www.sogc.org/healthybeginnings
- Our complete line of pregnancy-related public education brochures available at www.sogc.org