

Departments of gynaecology and reproductive medicine

# How a woman's age affects her fertility

Information for patients, relatives and carers

## Introduction

This leaflet explains some facts about how a woman's age affects her fertility and the success of fertility treatment. If you'd like to have a more detailed discussion with a fertility specialist, please ask your doctor to refer you to the fertility clinic.

## Eggs and fertility

Fertility is the ability to get pregnant. A woman needs healthy eggs to be fertile. All women are born with a certain number of eggs. This number reduces with age, which is natural and expected.

One egg develops and gets released each time a woman ovulates during her monthly cycle. If this egg is fertilised by a sperm, the woman may get pregnant.

Women can expect to become less fertile as they reach their 30s. The drop in fertility speeds up as they reach their mid-30s.

As eggs age, their quality also gets poorer. This is also natural and expected. More of the eggs will have the wrong number of chromosomes. We call this a genetic abnormality. This reduces the chance of having a successful pregnancy.

## How age affects the chance of getting pregnant each month

If a woman and her partner are healthy:

- in their 30s, about 4 in 20 women will get pregnant in any single menstrual cycle
- by age 40, about 1 in 20 women will get pregnant per menstrual cycle
- by 45 or older, women have a very low chance of having a baby using their own eggs. This is even if they have regular menstrual cycles.

## How age affects the chance of a miscarriage

As we get older, the risk of miscarriage increases. In fact, maternal age is the strongest known risk factor for miscarriage. See Table 1 (Magnus et al 2019).

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This is because older eggs are more likely to have the wrong number of chromosomes. This leads to embryos that are not likely to survive.

## How age affects pregnancy complications

Pregnancy complications increase with age. The following all become more common:

- raised blood pressure
- diabetes
- blood clots in the legs or lungs
- need for caesarean section
- risk of heavy bleeding following delivery
- admission to the intensive care unit.

Maternal age	miscarriage rate
early 30s	1 in 10 (10%)
by age 38	2 in 10 (20%)
by age 41	3 in 10 (30%)
by age 43	4 in 10 (40%)
over age of 45	more than 5 in 10 (>50%)

Table 1: maternal age and miscarriage rate

## How age can affect babies

As maternal age increases, babies are also more likely to:

- weigh less
- be delivered early
- be stillborn
- require admission to the baby unit

Some of these problems can affect the long-term health of babies.

## How age affects the success rate of fertility treatments

In-vitro-fertilisation (IVF) is a fertility treatment. The woman's age is the main factor in this being a success. So:

- a woman under 35 can expect a success rate of more than 40 in 100
- a woman over 44 can expect a success rate of less than 5 in 100.

Using donor eggs is the only way to improve these rates.

For more information on IVF see: [www.hfea.gov.uk/treatments/explore-all-treatments/in-vitro-fertilisation-ivf/](http://www.hfea.gov.uk/treatments/explore-all-treatments/in-vitro-fertilisation-ivf/)

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## Chance of pregnancy for women over 45 years of age

Women over 45 have a very low chance of having a baby from a pregnancy conceived naturally. They also have a very low chance if they use their own eggs for IVF treatment.

IVF using egg donation is the only effective way of increasing the chance of pregnancy for women over 45.

Women with pregnancies conceived through egg donation are still at increased risk of pregnancy complications:

- four times higher risk of developing high blood pressure in pregnancy
- nearly two-fold higher risk of low-birth-weight babies
- nearly three-fold higher risk of resulting in a caesarean section
- nearly one-and-a-half-fold higher risk of prematurity

## IVF costs and funding

In England, the decision about who can have fertility treatment and how much, is decided locally by Integrated Care Boards.

For more information see: [www.hfea.gov.uk/treatments/explore-all-treatments/costs-and-funding/](http://www.hfea.gov.uk/treatments/explore-all-treatments/costs-and-funding/)

## Support around fertility, miscarriage and pregnancy complications

Getting emotional support – Human Fertilisation and Embryology Authority	<a href="http://www.hfea.gov.uk/treatments/explore-all-treatments/getting-emotional-support/">www.hfea.gov.uk/treatments/explore-all-treatments/getting-emotional-support/</a>
Tommy's	<a href="http://www.tommys.org/">www.tommys.org/</a>
Miscarriage Association	<a href="http://www.miscarriageassociation.org.uk">www.miscarriageassociation.org.uk</a>
Sands	<a href="http://www.sands.org.uk">www.sands.org.uk</a>

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## References

British Fertility Society (n.d.). Age and Fertility ACE The Association of Clinical Embryologists. [online] See <https://www.britishfertilitysociety.org.uk/wp-content/uploads/2016/10/age.fertility.pdf>.

Extend Fertility (2018). See: <https://extendfertility.com/your-fertility-3/egg-quality/>

Franasiak, J.M., Forman, E.J., Hong, K.H., Werner, M.D., Upham, K.M., Treff, N.R. and Scott, R.T. (2014). The nature of aneuploidy with increasing age of the female partner: a review of 15,169 consecutive trophoctoderm biopsies evaluated with comprehensive chromosomal screening. Fertility and Sterility, [online] 101(3), pp.656663.e1. doi

See: <https://doi.org/10.1016/j.fertnstert.2013.11.004>

Magnus, M.C., Wilcox, A.J., Morken, N.-H., Weinberg, C.R. and Håberg, S.E. (2019). Role of maternal age and pregnancy history in risk of miscarriage: prospective register-based study. BMJ, [online] p.l869.

See: <https://doi.org/10.1136/bmj.l869>

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We want to hear your **suggestions** or **comments**. Your feedback helps us provide the best service. You can always speak to a member of staff.

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You can make a complaint by ringing **020 3312 1337 / 1349** or emailing [ICHC-tr.Complaints@nhs.net](mailto:ICHC-tr.Complaints@nhs.net). The address is Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street, London W2 1NY.

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