

# How old is too old for IVF?



Professor **Luciano Nardo** consultant gynaecologist and subspecialist in reproductive medicine and surgery and founder of NOW-fertility

In this article, I will explain how age affects fertility for both men and women.

## Female fertility

Let's start with talking about female fertility. Women are born with around 250,000 eggs and throughout their life, from when they have their first period to when they reach the menopause the body draws on these - you cannot produce more eggs beyond what you were born with. Only a few hundred thousand will still exist by puberty, and a mere few hundred will be released through ovulation.

The quantity and quality of eggs is called 'ovarian reserve' and this diminishes due to normal ageing, but also due to smoking, alcohol or drug use, treatment for cancer, or sometimes for no known reason. On average, female fertility will start declining from the age of 35 and most women will experience a steeper decline after the age of 39.

We know that women under the age of 35 may have a better chance of becoming pregnant naturally than somebody aged 37+ and generally speaking, the same age scale applies for assisted conception, with the chances of IVF success declining with advancing female chronological age. As a result, I would strongly recommend women over 35 looking to have a baby should consider conception support sooner rather than later.

Older women tend to have eggs of poor quality, and poor quality eggs are more likely than not to create poor quality embryos. A woman's lifestyle plays a role too. Studies have shown us that parents-to-be who smoke, drink excessively, and take drugs can affect the quality of their eggs. However, ovarian

and chronological ageing are the main determining factors.

This is due to oxidative stress, which is an imbalance between free radicals and antioxidants in the body. As you get older, your body ages, and this is the same for your cells. We know that oxidative stress accumulates within the body, and that this causes damage, including to your DNA. We know that DNA damage affects fertilisation, and the quality of embryos created. The reason why older women have more problems getting pregnant is because of the breakdown of cells. If the same eggs were fertilised at the age of 20, there is a higher chance of producing a healthy baby than at 45. This is the reason why I discourage my patients older than 37 to freeze their eggs, because realistically the chances of those eggs surviving the freezing and defrosting process and being fertilised, and then creating a healthy embryo that could implant and grow to a healthy pregnancy are very slim.

While there currently is no female age limit in the UK, in my medical practice I apply common sense, and clinically sound advice. I would not put someone through IVF who has very, very low ovarian function, and I certainly wouldn't recommend IVF to somebody who has had IVF before and didn't produce any healthy eggs.

If a woman is thinking about preserving her fertility, she might want to consider freezing her eggs, ideally before she reaches age 35. Freezing eggs after this age is unlikely to give the same success rate. Egg freezing involves collecting a woman's eggs, freezing them and thawing them at a later date in order to fertilise during treatment. The younger a woman is when she has the procedure, the better quality the

eggs and the chances of pregnancy.

I think the statistics around IVF can be quite depressing; we know that IVF is successful in one third of cases. However, when embarking on treatment, you need to remember: you are not a statistic. You are an individual case, with individual lifestyles and your own health background.

What's more, age isn't the only determining factor when it comes to success. We need to consider ovarian reserve and reducing ovarian function, which can be assessed by a blood test and ultrasound scan.

Embarking on fertility treatment is one of the biggest, and perhaps most daunting, life decisions many couples and individuals will ever make. It can be an emotional rollercoaster and physically stressful; that's why NOW-fertility believes it is crucial to offer tailored expertise alongside as much support as possible, so that a positive and life changing outcome is achieved.

### Male Fertility

We need to talk about male fertility too. Is the sperm healthy, and does it have any DNA damage? Discussing statistics around the woman's age is just one small piece of the puzzle. Male fertility declines like female fertility. But the difference is, female fertility is normally associated with running out of eggs. In men, the testicles produce sperm constantly, so male fertility issues are less likely to be related to running out of sperm, it's more to do with sperm quality. Men's fertility declines with age at a more constant, slower rate than women's and as such society has led us to believe that fertility is a female issue. However, the health of the sperm is

significant to IVF success too. Older men may still be producing and overall have a good quantity and concentration of sperm, but the quality – including motility and morphology – may decline over time.

As well as age, it's important for men to know smoking and excessive alcohol intake can also cause DNA fragmentation. This means that the sperm becomes damaged and that can lead to subfertility, to miscarriage and potentially to a birth defect.



From the very first appointment with your GP, the focus is often weighted for women. Women may have multiple tests, and gynaecological care, while a man may simply have a semen analysis. This can have a detrimental effect on a man's confidence, relationships, and his emotional state. Men are not encouraged to ask questions and find out what's going on from their point of view. Some men can end up feeling like a spare part throughout the fertility journey.

While men don't experience a drop in fertility after a certain age in the same way women do, sperm counts do deteriorate. I would encourage any man facing potential fertility issues to get thoroughly tested, and go and see a urologist if you can. Once we understand medically what the problem may be, we can act accordingly.

There are many changes that can be made to improve sperm count and quality. Sperm are generally very easily influenced by simple lifestyle tweaks. Sperm have a 60-90 day development cycle so three to four months of little changes and you may well see a big difference:

- Eat a healthy diet, and increase your intake of fresh fruits and vegetables, including tomatoes. Tomatoes are packed with lycopene; which stud-

ies suggest can improve sperm quality. Cut out processed meats and sugars and limit caffeine and alcohol.

- Quit smoking and taking any recreational drugs.
- Exercise regularly, making sure you're staying well hydrated.
- Avoid putting laptops on your lap, and don't keep mobile phones in your pocket.
- Ejaculate every three to five days

Tracey Sainsbury is a specialist fertility counsellor who works with a growing number of clients for whom age related fertility issues are a concern, and recognises that the right age to try and conceive often is at odds with fertility being optimal:

*"This is not just because women are focussing on their career, more often because they are choosing not to settle for the wrong relationship in which to try and conceive. Where there is a desire to become parents, as in to conceive with someone in a relationship, finding the right partner can take time. Often the desire for a family outweighs waiting, hence more women choose to embrace solo motherhood or try to conceive later than was hoped."*

Tracey Sainsbury, Specialist Fertility Counsellor

*"I had to attend counselling as we were using donor sperm with IVF, I've stayed with it on a regular basis as the treatment has stirred up so many other aspects of life where I feel conflicted, counselling has really helped me to cope better and to have a space to make sense of things."*

June, a fertility patient

Tracey adds:

*"Counselling can help to promote robustness and resilience as a fertility journey continues, promoting staying with treatment to give the best chance of a successful outcome, or to feel supported if treatment does not feel right."*



Tracey is keen to highlight that attending counselling is not just helpful before or during fertility treatment, it can be as helpful for people who decide that treatment is not for them, or who decide to explore alternative parenting options, support around fertility decisions should always be available and this has recently been highlighted in fertility patients care guidance report published by the European Fertility Society. <https://www.europeanfertilitysociety.com/publications/EFSS-Fertility-Patients-Care-Guidance-2022-rev-1.pdf> which reinforced the need for clinics to be more patient centred. In the UK the HFEA stipulate that it is a mandatory requirement for counselling to be offered by clinics.

Tracey advised that as with her client June, who is quoted, independent counselling can sometimes be

more helpful than in-clinic counselling so continuous support can be in place if treatment triggers emotions relating to other situations in life that have felt out of control, or where the need arises to change clinics.

The International Infertility Counselling Organisation lists the different accrediting bodies around the world <http://www.iico-infertilitycounseling.org/1216-2/> and

in the UK you can find a fertility counsellor at [www.bica.net](http://www.bica.net)

NOW-fertility is not a clinic - it is a trail-blazing new digital platform, which is going to revolutionise the assisted conception journey for individuals and couples. We will match your requirements to the best clinic with expertise in the specific fertility therapeutic area you need. Each NOW-fertility patient will receive personalised care, 24-hours a day, seven days a week throughout your fertility journey via your own dedicated team of multi-lingual fertility consultants, nurses, counsellors, and care coordinators.

[www.now-fertility.com](http://www.now-fertility.com)