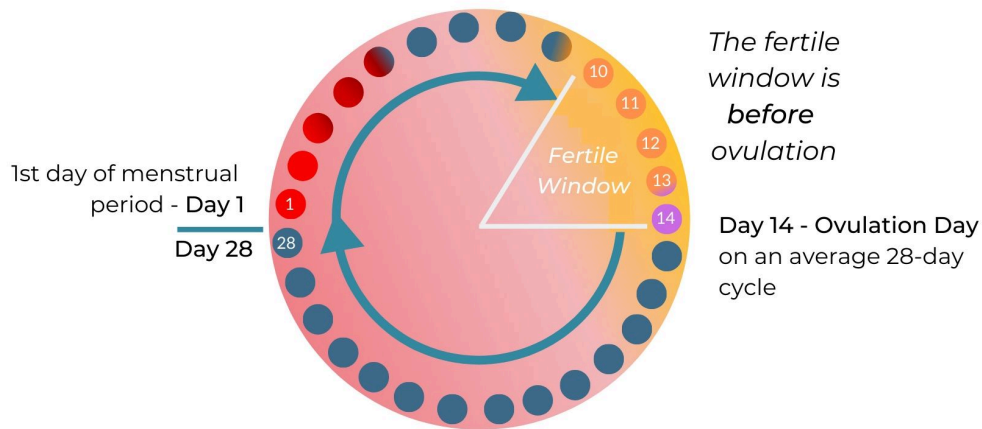


## Initial Questions

- **Female age?** *Age determines the female's window of opportunity for having children.*
- **How long has she been trying to conceive (TTC)?**  
*Under 35s should be referred after 1 year of TTC, and over 35s after 6 months. If the patient is over 40, refer immediately.*
- **Is the patient ovulating?**
- **Do the couple know when to try?**

## Ovulation

- Most women with a regular cycle are ovulating. Ovulation occurs 14 days before the next period starts (the first day of the period is Cycle Day 1)
- Use of a simple (urine LH stick) Ovulation Predictor Kit (OPK) for a few cycles is useful. Consistent, appropriate (one day before likely ovulation) OPK results are reassuring. Negative or inappropriate positive results create doubt.
- A mid-luteal phase progesterone level (>30nmol/l) suggests ovulation has occurred. Mid-luteal means 7 days after ovulation or 7 days before the next period starts.
- Temperature charting is inaccurate, so not recommended.



Average 28 Day Menstrual Cycle

The fertile window is **before** ovulation

Day 14 - Ovulation Day on an average 28-day cycle

## When To Try: The Fertile Window

Sperm can survive for up to 5 days after intercourse, while the egg only survives for 12 hours after ovulation. The day after ovulation, the chance of achieving a pregnancy drops to zero. These realities determine the 'fertile window'.

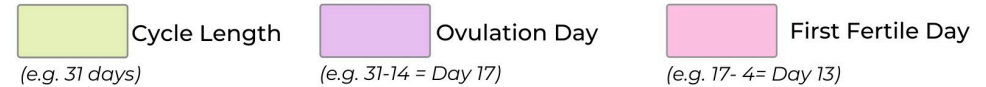
Intercourse every second day from the **earliest possible fertile day to the latest possible day of ovulation** is sufficient to optimise conception.

If an Ovulation Predictor Kit is used on every cycle, intercourse as soon as the OPK goes positive and the following day is sufficient.

## Calculating Your Fertile Window

To calculate your Fertile Window, subtract 14 from your cycle length. This is **Ovulation Day**. Subtract a further four days to calculate your first Fertile Day. You can calculate your Fertile Window by filling out the chart below.

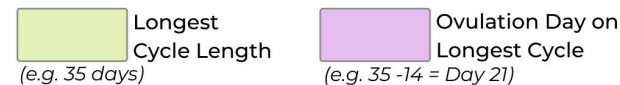
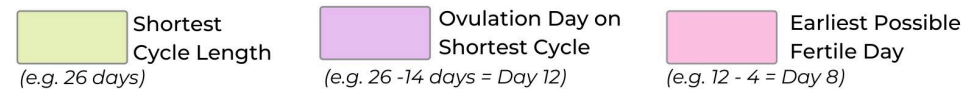
### For Regular Cycles *(Please fill out)*



Your Fertile Window is from:  
*(e.g. Fertile Window is Days 13 - 17 inclusive)*

|     |    |     |
|-----|----|-----|
| Day | to | Day |
|-----|----|-----|

### For Irregular Cycles *(Please fill out)*



Your Fertile Window is from:  
*(e.g. Fertile Window is Days 8 - 21 inclusive)*

|     |    |     |
|-----|----|-----|
| Day | to | Day |
|-----|----|-----|

## Fertility Assessments for Women

### Hormone Profile

- FSH, LH, Estradiol (Day 2, 3 or 4 of cycle)
- Note: FSH level should be less than 10 IU/l
- Thyroid function tests and Prolactin
- Anti-Müllerian Hormone test (AMH)

### AMH

The number of eggs every woman has decreases with age. However, at any given age, some women will have far more eggs than other women. AMH reflects those egg numbers: a woman with a small number of eggs will have a low AMH level (and a high FSH level), and a woman with a good number of eggs will have a high AMH level (and a low FSH level). At age 30, the average AMH level is 25 pmol/l, but 10% of 30-year-olds will have an AMH level less than 10pmol/l.

AMH does NOT reflect egg quality. Egg quality is very much related to age.

Low AMH levels (less than 7pmol/l) in women over 35 raise concerns that the window of opportunity for having children may be reduced and indicate a degree of urgency for fertility assessment and treatment.

AMH is good at predicting the number of eggs that will be collected in an IVF cycle. The higher the AMH, the greater the number of eggs. Women over 35 with a high AMH level will be more likely to succeed with IVF as more eggs will be collected and more embryos produced.

### Advice to Boost Fertility

- Stop smoking
- Reduce alcohol (if intake is excessive)
- Lose weight (if overweight) or gain weight (if underweight)

### Refer for Fertility Assessment if:

- TTC for more than 1 year (or 6 months if the woman is over 35)
- High FSH Level (>10 IU/L) and/or Low AMH Level (<10 pmol/L)
- A family history of early menopause
- Not ovulating
- Not having sexual intercourse (IUI can help).
- History of abdominal surgery
- History of PID

## Fertility Assessments for Men

### Interpreting Semen Analysis Results

Note: Men should abstain from intercourse and/or masturbation for 3 days prior to semen analysis. It is not advisable to abstain for a longer period as this can affect the results of the test.

| Parameter                           | WHO Lower Limits of Normality | Explanation                                               |
|-------------------------------------|-------------------------------|-----------------------------------------------------------|
| Volume                              | 1.5ml                         | Volume of sample should be at least 1.5ml                 |
| Sperm Concentration ("Sperm count") | $15 \times 10^6$ /ml          | Should be at least $15 \times 10^6$ sperm per ml of semen |
| Motility                            | 40%                           | At least 40% of sperm should be moving                    |
| Morphology                          | 4%                            | At least 4% of sperm should be a normal shape             |

### Advice when semen parameters are mildly abnormal

- Stop smoking
- Reduce alcohol (if intake is excessive)
- Lose weight (if overweight)
- Avoid over-heating testicles - avoid tight trousers, laptop on lap, excessive cycling
- Try supplements containing zinc, folic acid, Selenium, Vitamins B and C.
- Repeat semen analysis after three months
- Remember anabolic steroids in bodybuilders can result in temporary azoospermia

### Refer to a Fertility Clinic if:

- 2 semen analysis results are abnormal
- 1 semen analysis result very abnormal (count  $<5 \times 10^6$ /ml or azoospermia)
- 1 semen analysis result is abnormal and there is a history of:
  - Undescended testicles or surgery to correct same
  - Testicular torsion or trauma
  - Age of female partner greater than 35
- History of vasectomy

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