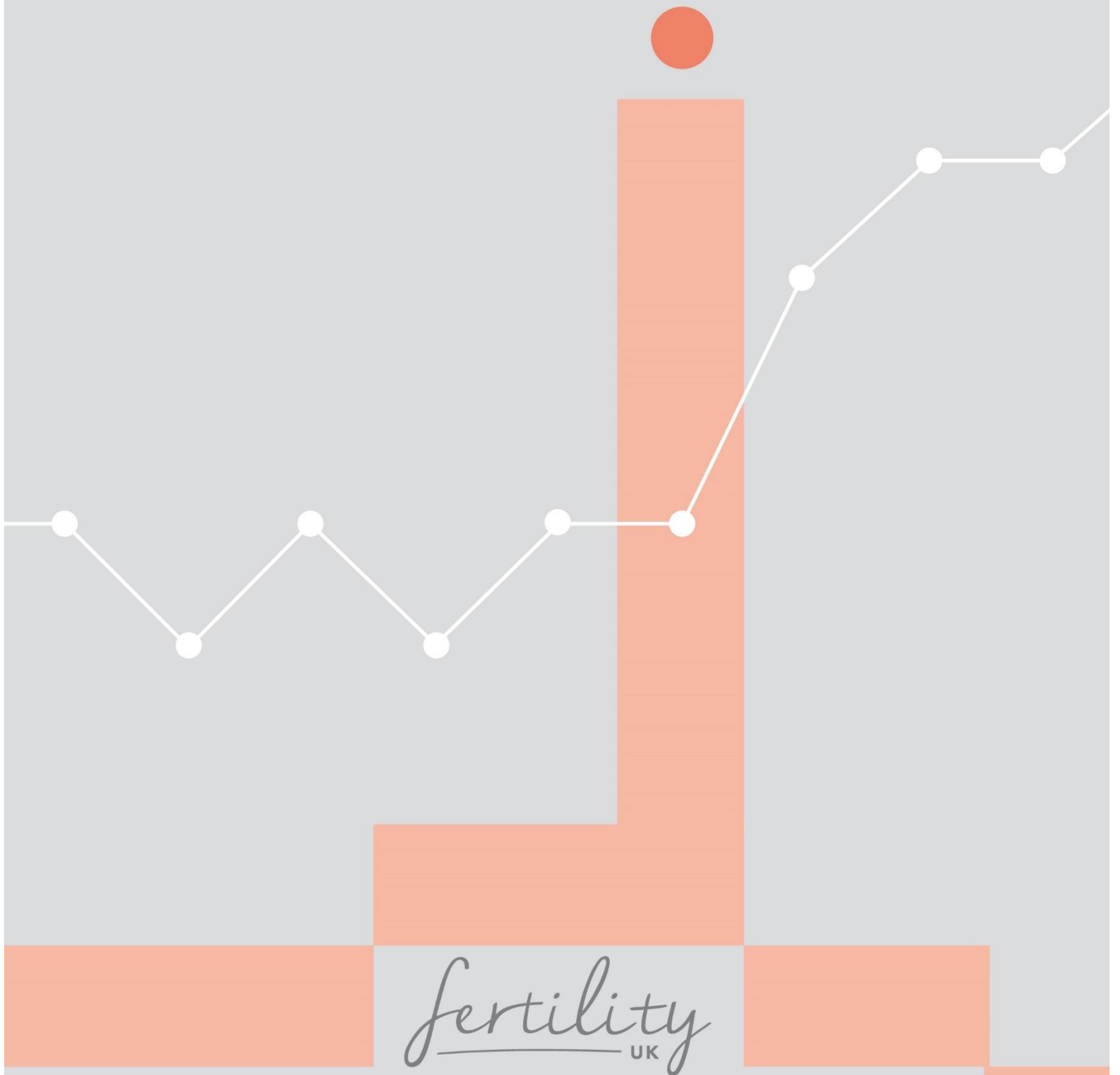


Getting Started

A beginner's guide to Fertility Awareness Methods



fertility
UK

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Getting Started

A beginner's guide to Fertility Awareness Methods

This beginners' guide is designed to complement teaching from a fertility awareness practitioner. It is not intended as a self-help manual.

Getting Started provides the essentials of Fertility Awareness Methods. It includes:

- an overview of male and female fertility
- instructions on how to record the indicators of fertility
- blank and completed charts
- essential information about interpreting charts
- guidelines for achieving pregnancy
- guidelines for avoiding pregnancy – for women of normal fertility

Each woman's cycle is unique; many factors can disrupt cycles and make accurate interpretation difficult. It normally takes 3-6 months to learn fertility awareness methods properly and during this time, regular personal contact with a trained practitioner is strongly recommended.

Fertility awareness methods which use a combination of indicators are up to 99% effective when motivated couples are taught by experienced practitioners, and follow the guidelines. This means that 1 woman in 100 will conceive in a year. If fertility awareness methods are not used according to instructions, more women will get pregnant.

For more information and to find a clinic near you, go to www.fertilityuk.org

Fertility awareness practitioner details:

Name:

Contact details:

Disclaimer: FertilityUK provides training and continuing professional development for health professionals, but cannot accept liability for individual practitioners.

For a comprehensive book on fertility awareness methods see:

The Complete Guide to Fertility Awareness by Jane Knight, Routledge, 2016

Introduction

Fertility awareness allows you to get in tune with your body and your menstrual cycles by monitoring changes in your indicators (signs) of fertility. It takes time and commitment to learn fertility awareness methods but, as with any new skill, this becomes easier with practice. Your fertility awareness practitioner will be able to help you make sense of your charts and to look at how disruptions in your life and changes to your personal circumstances can impact on your cycles.

This guide is intended as a reminder on how to record your fertility indicators clearly and accurately and to start to work out how you can interpret the information. Your practitioner will confirm whether you are on the right track. If you are using the information to avoid pregnancy, it is vital that you either abstain from intercourse or use a barrier method consistently until you can clearly identify the fertile time in your cycle. It may take just a few cycles to feel confident or it may take longer, particularly if you have irregular cycles or your cycles are affected by stress.

Male fertility

A man is producing *sperm* on a continuous basis from his early teens throughout his adult life. Although sperm counts fluctuate and sperm quality can be affected by illness or lifestyle, for the purposes of fertility awareness, we assume that ***a man is potentially fertile 24 hours a day, seven days a week. Sperm will survive for an average of 2-3 days in the female reproductive tract and potentially for up to 7 days.*** If you are trying to conceive, you need to have sex at least every 2-3 days to give the sperm a chance; but if you wish to avoid pregnancy, you need at least one week's warning before you ovulate (release an egg). Your body provides this information through changes in the secretions at your cervix. This is one of the indicators you will be observing

Genital contact and withdrawal method: Sperm may be contained in the small amount of pre-ejaculatory fluid which is released prior to ejaculation, so genital contact without full intercourse can result in pregnancy and withdrawal method (pulling out) is not recommended as a safe method.

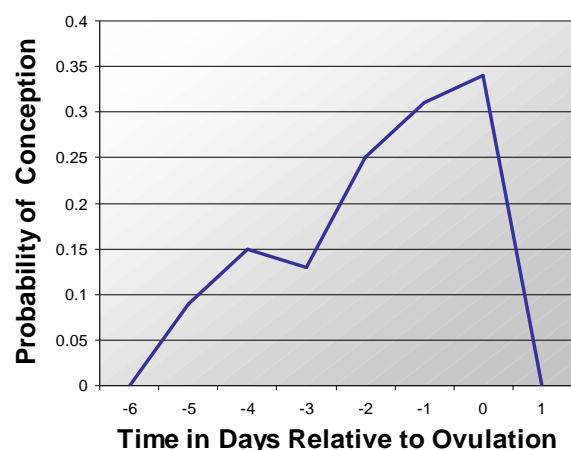
Female fertility

A woman is born with her lifetime supply of eggs. As she gets older, the quantity and quality declines and her chances of becoming pregnant and having a healthy baby are reduced. Biologically, the ideal time to conceive is 25-35 years. Unlike male fertility, a woman's fertility works on a cyclical basis.

Chances of conception

Research using estrogen and progesterone shows that the *fertile time* (when conception is possible) lasts six days: that is from five days before ovulation until the day of ovulation itself. (Image right: Day 0 is the day of ovulation)

A woman's subjective assessment of her fertility is not as precise as hormone tests, and a margin of error is required, so ***the fertile time, based on fertility indicators, averages 9 days.***



Chances of conception based on hormones (Wilcox 1995)

The menstrual cycle

The *menstrual cycle* describes the roughly monthly pattern of menstruation (periods). Menstruation is the time when the endometrium or lining of the uterus (womb) is shed; and lasts for an average of 3-5 days. The menstrual cycle starts on the first day of the period (first day of fresh red bleed), and lasts for around 28 days; but variations of up to one week are still considered regular and normal. The length of the menstrual cycle is measured from the first day of one period up to, but not including, the first day of the next period.

The pre- and post-ovulation phases of the cycle

The menstrual cycle can be conveniently divided into the time before ovulation (*pre-ovulation or follicular phase*) and the time after ovulation (*post-ovulation or luteal phase*). Ovulation is only a momentary event, so for practical purposes, we need to consider the full width of the *fertile time*. (see image on page 3). The pink shading denotes the period; the grey is the infertile time and the white, the fertile time. The *fertile time* arrow (around 9 days) shows the lifespan of sperm (up to 7 days) and the lifespan of the egg (up to 24 hours), but allowing for the possibility of a second ovulation occurring within 24 hours of the first (e.g. non-identical twins), this gives a maximum of 48 hours for egg survival. The post-ovulation phase is constant in length (10-16 days) and once ovulation has been confirmed the rest of the cycle is *infertile* and there is virtually zero chance of pregnancy. The pre-ovulation phase however can be more varied in length so is less predictable – ovulation could occur earlier than expected or sperm could survive for longer than anticipated, so the time before ovulation is only ever considered *relatively infertile*.

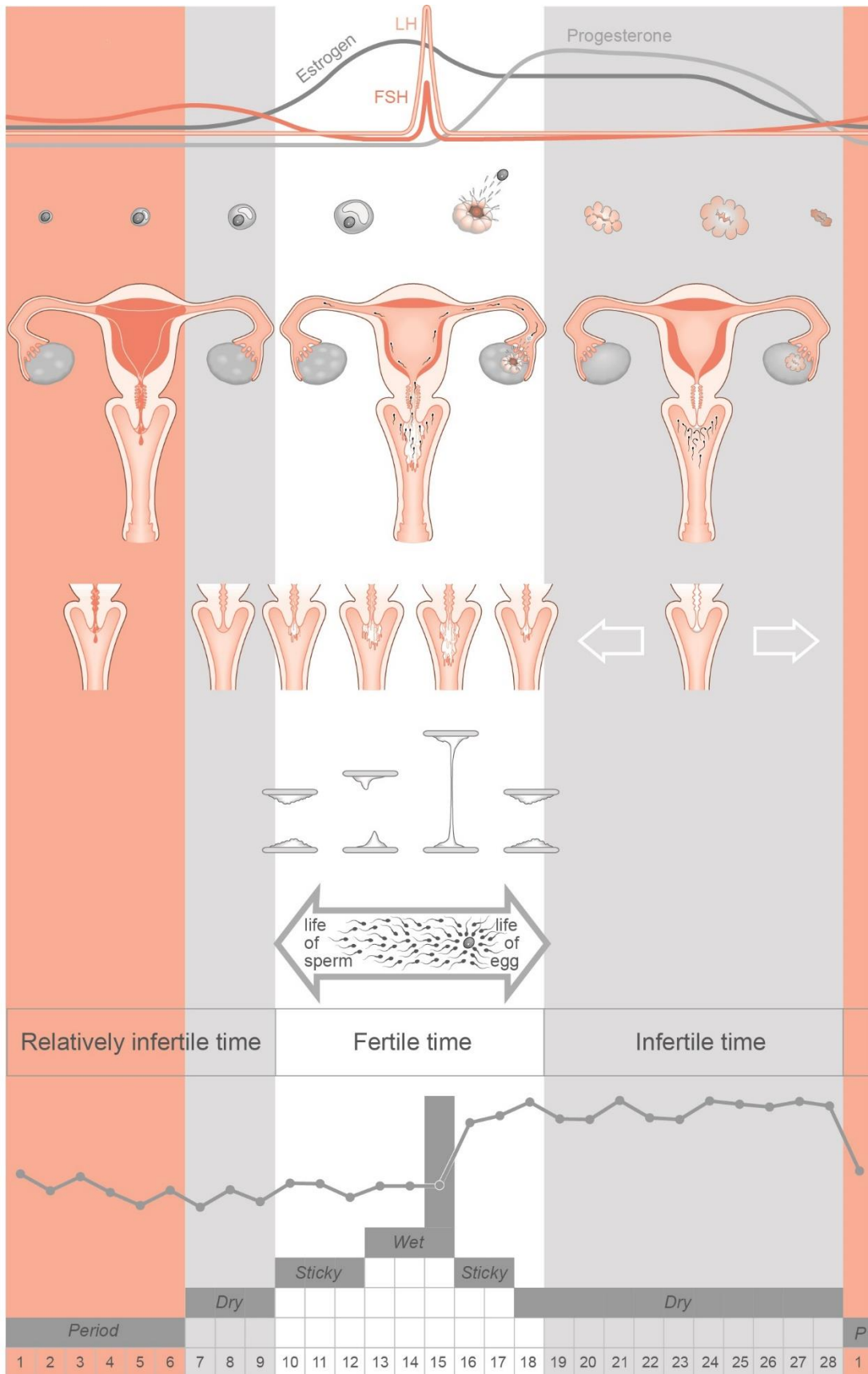
Sex hormone system

The menstrual cycle is under the control of *sex hormones*. The master gland in the brain (*hypothalamus*) has overall control and produces *releasing hormones*, which in turn control the *pituitary gland* at the base of the brain. In the first half of the cycle, the pituitary produces *follicle-stimulating hormone (FSH)* which does just as its name implies: it stimulates the follicles (which contain the eggs) to grow and develop. As the follicles start to grow, they produce increasing amounts of the hormone *estrogen*. As the estrogen levels rise, this has an effect on the *cervix* preparing it to receive the sperm. The cervical secretions become wetter, more alkaline and sperm-friendly to allow the sperm to enter the cervical canal. When estrogen reaches a certain level, it triggers a surge in *luteinising hormone (LH)* which in turn triggers the release of an egg at *ovulation*.

After the egg has been released, the empty follicle collapses and is now the *corpus luteum* or yellow body (because of its colour). The corpus luteum produces increasing amounts of *progesterone* which thickens the endometrium (lining of the uterus) in preparation for pregnancy. The corpus luteum has a fixed lifespan of about 14 days, during which time if an egg is fertilised, the process of *implantation* (embedding) will start and pregnancy begins. If there is no fertilisation, the corpus luteum degenerates, the progesterone level drops and the next period starts within about 14 days.

Essentially, the first half of the cycle is estrogen-dominant and the second half is progesterone-dominant, and it is the levels of these hormones which influence changes in the indicators of fertility. Under the influence of estrogen, the cervical secretions are wetter, clearer and more stretchy, encouraging sperm survival; whereas under the influence of progesterone, the secretions are thicker, white and more sticky, creating a plug which prevents sperm penetration. Progesterone also causes a slight, but measurable, rise in waking temperature.

The menstrual cycle and the indicators of fertility



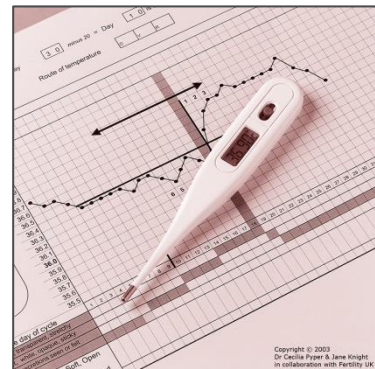
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The indicators of fertility

The indicators of fertility include:

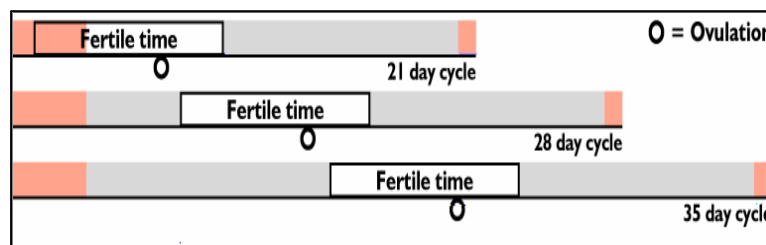
- cycle length variation (calculations based on days)
- waking temperature
- cervical secretions
- changes in the cervix (optional indicator)

A number of *minor indicators* (such as ‘mid-cycle’ pain) may be observed but they do not correlate closely with the fertile time and will not be discussed further.



Cycle length variations

Ovulation occurs around day 14 in a ‘classic’ 28 day cycle, but most women will find their cycles vary to some extent. The image below shows short, average and long cycles to demonstrate variations in cycle length. The time from ovulation to the next period (post-ovulation phase) remains constant at around 14 days, so the variation in cycle length is largely due to the variable length of the pre-ovulation phase. If you look at the interval from ovulation ‘o’ to the *next* period, this stays constant; but the time from the start of the period until ovulation is variable. The fertile time (white block) stays constant at around 9 days; so it is easy to see that in a short cycle the fertile time could start during a period. This means that **it is quite possible to conceive from intercourse during a period as sperm can survive for up to 7 days waiting to fertilise the egg**. In a longer cycle, ovulation will occur much later in the cycle, for example around day 21 of a 35 day cycle.



Variations in cycle length

Pink = period

Grey = infertile times

White = fertile time

First cycle: As a new user, the first cycle is a learning cycle – **no unprotected intercourse in the first cycle**. This gives an opportunity to start to familiarise yourself with recording fertility indicators.

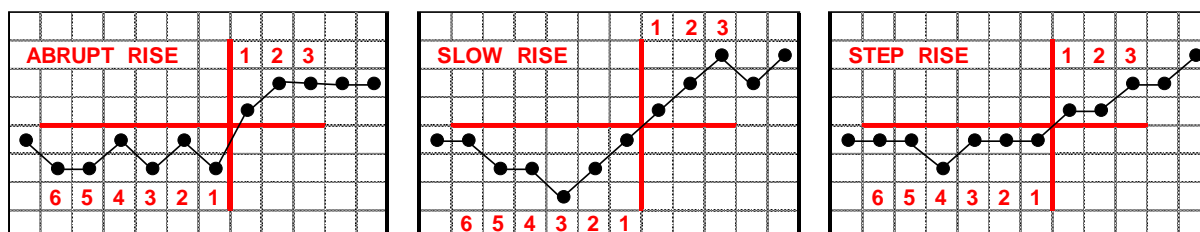
The post-ovulation or *late infertile time* is always the most effective to avoid pregnancy. The pre-ovulation or *early infertile time* is only *relatively* infertile, due to the variable length of this phase and the possibility of early ovulation or long sperm survival times. To optimise the effectiveness of the early infertile time, you can add different calculations to identify the start of the fertile time.

If you have an accurate written record of the length of your last 12 cycles you can use **S minus 20 rule**. Estimate your shortest cycle length: e.g. if you have had cycle lengths of 32, 27, 31, 30, 27, 29, 30, 27, 31, 28, 30 and 29 days, your shortest cycle (S) is 27 days. The calculation is: *Shortest cycle minus 20 to give the first fertile day*, so: $27 - 20 = 7$. Day 7 is therefore your first fertile day.

If you do not have a record of the length of your last 12 cycles, use **the Day 6 rule**. This allows intercourse up until day 5, with the fertile time starting on day 6. This rule can be used from your 4th cycle provided your first three cycles have been 26 days or longer. Continue to use the Day 6 rule until you have recorded 12 cycle lengths and then you can start to use the personalised S minus 20 rule. This is recalculated after each cycle to work on the length of the previous 12 menstrual cycles.

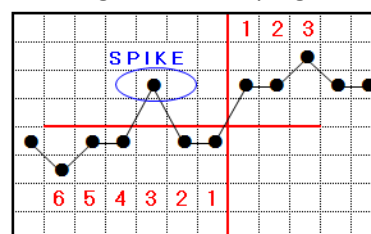
Temperature

After ovulation, the collapsed follicle starts producing progesterone, which causes a rise of about 0.2 degrees centigrade in the waking temperature. The temperature rise confirms ovulation *has* occurred and identifies the end of the fertile time. There must be 3 undisturbed high temperatures above the level of the previous 6 low temperatures. This is known as the **3 over 6 rule**. The *third* high temperatures should be a minimum of 0.2 deg.C. To identify the appropriate temperatures, draw a horizontal cover-line on the line *immediately* above the highest of the low temperatures. Then draw a vertical line to divide the high and low temperatures (see below). The temperature rises abruptly, slowly or as a step-rise. There must be 3 temperatures in the top right quadrant and 6 in the lower left. If the third high temperature is not at least 0.2 deg.C wait for a further temperature which just needs to be above the cover-line.



Variations in the temperature rise

A **temperature spike** is a single recording which is 0.2 deg. C. or more above the one on each side. This may be caused by a disturbance such as drinking alcohol, a late night, oversleeping, minor illness or stress; or there may be no apparent reason. Circle the spike so that it can be easily seen and discounted. One spike can safely be ignored when determining the six temperatures on the lower level, but where possible there should be an explanation for it. If there is more than one spike, wait until the position becomes clear again. If one of the three higher readings is disturbed, wait for a fourth high reading before assuming the fertile time has ended. For information about thermometers and how to record your waking temperature see page 9; blank chart on page 10 and for guidelines on interpreting your chart, page 12.



The temperature usually remains at the higher level for 10-14 days before the next period starts - **normal luteal phase**; but sometimes this interval may be shortened - **short luteal phase**. If the luteal phase is nine days or less, there may be insufficient time for implantation; which may be significant for women who are trying to conceive. Short luteal phases are not uncommon at times of stress and times of changing fertility. In a small percentage of cycles, there is no rise in temperature, the temperature stays on the low level until the next period starts – **monophasic chart** which may suggest that ovulation has not occurred. Your fertility awareness practitioner will help you to interpret your chart and advise you of any further action. (see also completed chart page 11)

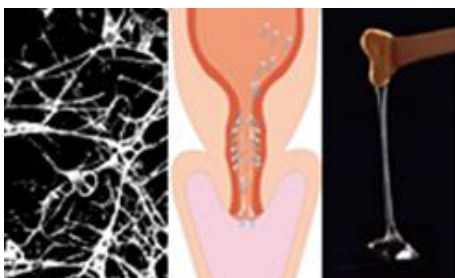
Common factors which may affect the fertility chart		
Alcohol	Holidays	Stress
Late night	Travel	Illness
Disturbed night	Time-zones	Gynaecological problems
Oversleeping	Shift work	Medication

Cervical secretions

The hormones estrogen and progesterone cause the subtle changes in the secretions throughout the menstrual cycle, which either encourage or impede sperm penetration. In the two images below, you can see the cervix with sperm progress (centre); cervical secretions under high magnification (left); and the appearance of cervical secretions (right).



For a large part of the menstrual cycle, the cervix has a thick plug of mucus preventing sperm penetration (this is mostly related to a higher level of **progesterone**). As soon as you notice a change from true dryness to a feeling of moistness or stickiness, or see any sticky white secretions, this means that the plug is coming away and allowing gaps for the sperm to swim through – so the fertile time has started.



As the **estrogen** levels rise, the secretions become wetter, more transparent and slippery, and they may be quite stretchy- highly fertile secretions. The last day you notice this wetter secretion is known as peak day (usually very close to ovulation). The day after peak day, the mucus plug starts to thicken again (due to an increase in progesterone) and the secretions again become thick and sticky or dry.

You can recognise your cervical secretions by noting:

- The sensation (feel) at the vaginal entrance
- The appearance (look) describing the colour
- The finger-test (touch) describing the consistency

Observe the secretions throughout the day (by being aware of the sensation), and observing each time you go to the bathroom. Record the observations on your chart in the evening.

Record secretions by shading in the appropriate box (see blank chart page 10)

- days of your period
- dryness
- early sticky white or cloudy secretions (potentially fertile secretions)
- wetter, more transparent, slippery stretchy secretions (most fertile type of secretions)

The fertile time, based on cervical secretions alone, starts at the *first* sign of any secretions (change from dryness) and lasts for three full days after peak day (peak day is the *last* day showing the most fertile characteristics. This can be helpful information for women who are trying to conceive.

If you are trying to avoid pregnancy, it is important to add the changes in cervical secretions to your combined chart (see completed chart page 11). A combination of indicators – temperature, cervical secretions and a calculation (with optional cervical changes) will always give a more effective method, than relying on a single indicator.

Changes in the cervix

Just after a period, the cervix is low and easy to reach. It feels firm, and the os (cervical opening) feels closed. If you feel along the length of the cervix it feels quite long, and some women notice that it feels tilted to one side. It is generally quite easy to reach at this stage. As the estrogen levels rise, the cervix rises higher, becomes softer and shorter in length. It is now harder to reach with the finger-tip and may feel straighter (more central) in position. The cervical os feels slightly open. Notice the dotted red line in the image below which gives a guide to the height of the cervix. It takes almost a week for the cervix to change from its lowest closed position to its maximum height and openness. After ovulation, under the influence of progesterone, the cervix changes back within about 24 hours to its low, firm, closed, tilted position.

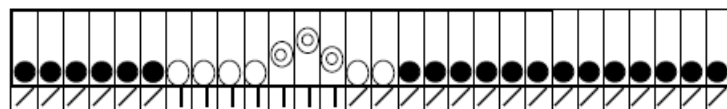


The cervix showing fertile and infertile changes

Checking your cervix

- Check at roughly the same time each day: preferably in the morning (e.g. shower time)
- Make sure your hands are clean with no long or broken finger nails
- Use the same position each day (either squatting or with one leg raised on the side of the bath)
- Gently insert one or two fingers into your vagina and reach for your cervix – it feels rather like a smooth indented ball. A firm cervix is often likened to the nose-tip and a soft cervix to the lips.
- Use a delicate finger-tip touch as the changes are very subtle

The changes in your cervix can be recorded on your chart as shown (see instructions page 9)



Recording the cervical changes on the chart

The cervix is an optional indicator, but is included here for completeness. Although it should only take a few seconds to check your cervix; if you are a beginner in fertility awareness, it is generally advisable to delay checking your cervix until you have some experience of charting cervical secretions (and temperature) or it may be quite confusing. It normally takes two or three cycles to learn to identify the changes in the cervix. This optional indicator confirms changes in temperature and secretions to increase the effectiveness of the method.

Instructions for use of the fertility chart

Thermometers:

Use a centigrade digital thermometer and follow the manufacturer's instructions (e.g. Boots, BD, or Omron). Features of appropriate thermometers include:

- intermittent beep with tone change to continuous beep when temperature has stabilised
- last memory recall (so you don't have to write it on your chart immediately)
- low battery warning indicator

Recording and charting waking temperature

- Take your temperature daily immediately on waking and before getting out of bed.
- Establish your target time (usually when you set your alarm) e.g. 7am (this allows 6.30-7.30)
- If your recording time varies by more than one hour (e.g. weekend), note it on the chart
- Place the thermometer under your tongue in contact with the floor of your mouth, close your lips gently and leave until the thermometer produces the appropriate beeping sound.
- Remove the thermometer, read it, and mark the reading on the chart with a dot in the centre of the appropriate square, not on the line. Join the dots to form a continuous graph.

Recording cycle length

- The first day of a period (fresh red bleed) is Day 1 of your cycle. Start a new chart on that day.
- The cycle lasts up to, but does not include, the first day of the next period
- If your period starts during the day, transfer that morning's temperature reading to a new chart
- Record length of your cycle (top right box on chart) to work out the length of your shortest cycle

Observing and recording cervical secretions

- Observe the secretions throughout the day and record on the chart at the end of the day
- Observe sensation, colour and texture
- Add shading to the secretions box for the appropriate day, by marking the days as:
 - o *Period*: (lowest box). Use part-shading for blood spotting or very light bleeding
 - o *Dry*: when you have not seen or felt any secretions throughout the day
 - o *Early fertile secretions*: moist, white, sticky or cloudy – the fertile time has started
 - o *Highly fertile secretions*: wet, slippery, transparent stretchy secretions (top box)
- Identify the **peak day** (last day in the top box) –so the last day when you notice wet, slippery, transparent, stretchy secretions. The peak day can only be recognised retrospectively (the day after peak), when the secretions have reverted to thicker, sticky white secretions or to dry again.
- Extend the shaded area of peak day, vertically upwards to correlate with temperature readings.

Recording changes in the cervix

The *infertile cervix* is represented by:

A solid black circle to show firm and closed: ●

Draw low on the baseline to show position

Draw a slanted line below to show the tilt: /

The *fertile cervix* is represented by:

An open circle to show softening: ○

An inner circle to show the open os: ⊙

A vertical line to show straight: |

Recording cyclical symptoms (minor indicators)

Indicate symptoms e.g. 'mid-cycle' pain, breast tenderness, or mood changes on appropriate day.

Comments box: Add any disturbances, such as late nights, alcohol, illness, drugs, travel, or stress.

Guidelines to achieve pregnancy

If you are trying to conceive, cervical secretions give the best information about your fertile time. Although sperm can survive potentially up to 7 days, the average sperm survival is around 2-3 days. Your fertile time starts as soon as you notice any secretions, whatever their quality, but the **optimum secretions for conception are the wetter, clearer, stretchy secretions**. Aim to have sex every couple of days ensuring this also coincides with the days of optimum secretions. The wetter secretions show that your follicles are growing and producing increasing amounts of estrogen, getting closer to ovulation. Don't worry about if, or when, ovulation is occurring and there is usually no need for temperatures, expensive kits or devices – secretions should give you all the information you need. Frequent sex ensures that sperm quality is good – the more sex, the better. There is NO need to 'save up sperm'. So, a constant top-up of sperm is the best way. Don't focus purely on when you think you are fertile, aim to have sex regularly throughout your cycle; and above all, enjoy it.

Guidelines to avoid pregnancy: Normal fertility

If you are just starting to learn fertility awareness, it takes time to understand the variations in your cycles and to learn to accurately observe, record, and interpret your fertility signs.

Cycle 1- this is a learning cycle only - NO UNPROTECTED SEX on the first cycle of charting.

Cycle 2 onwards - *The start of the fertile time is identified by:*

- **Cycle length calculation:** Shortest cycle minus 20 = First fertile day (12 cycles lengths needed)
- **The Day 6 rule:** allows intercourse up until day 5 of your cycle. First fertile day is day 6. This rule can be used from cycles 4-12 provided the first three cycles were all 26 days or longer.
- **Cervical secretions:** first change from dryness to any sign of secretions (by feel, look or touch)
- The fertile time starts at the first sign of change, *whichever comes first*.
- **For experienced users:** When you have recorded 12 temperature charts, identify the earliest temperature rise and subtract seven to identify the first fertile day. This rule gives more personalised information and more accurately identifies the first fertile day.

The end of the fertile time is identified by checking the temperature and secretions:

- **Temperature:** The evening of the third high temperature, *provided that:*
 - All 3 high temperatures are undisturbed
 - The third high temperature is a minimum of 0.2 degrees C. above the cover-line
 - There are at least 6 low temperatures
- **Cervical secretions:** All high temperatures must be *after* the peak secretion day
If peak day occurs on the same day as the rise in temperature, or following the temperature rise, then wait for three high temperatures *after* peak day.

The cervix generally takes the longest to learn, but as time progresses you will be able to use the first change from a low, firm, closed cervix to help identify the start of the fertile time.

These guidelines are intended to complement teaching and support from a fertility awareness practitioner See: www.fertilityuk.org for a list of trained practitioners