

## Fertility and the menstrual cycle: How they are connected.

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### Introduction

The menstrual cycle typically lasts around 28 days, although it can vary from person to person. It begins on the first day of a woman's period, which is when the uterus sheds its lining from the previous cycle. At the same time, hormone levels in the body start to change, with the pituitary gland releasing Follicle-Stimulating Hormone (FSH) and Luteinizing Hormone (LH) to trigger the development of a new egg in one of the ovaries. Around day 14 of the cycle, the mature egg is released from the ovary in a process known as ovulation. If the egg is fertilized by a sperm, it can implant in the uterus lining and develop into a pregnancy. If not, the uterus lining begins to break down and is shed during the next period, starting the cycle anew. [1].

Fertility is highest around the time of ovulation, as this is when the egg is available to be fertilized. However, it's important to note that fertility is also affected by other factors, such as the quality of the egg and sperm, overall health and lifestyle and age. Irregular menstrual cycles or absent periods can indicate potential fertility issues. For example, if a woman is not ovulating regularly or at all, it can be difficult to conceive. This can be caused by a variety of factors, such as Polycystic Ovary Syndrome (PCOS), thyroid disorders, or premature ovarian failure [2, 3].

On the other hand, heavy or painful periods, as well as bleeding between periods, can also be a sign of underlying health issues that may impact fertility. These include endometriosis, uterine fibroids, or other conditions that affect the uterus or ovaries. In addition to these physical factors, lifestyle choices can also impact fertility. Smoking, excessive alcohol consumption and drug use can all decrease fertility in both men and women.

Being overweight or underweight can also affect hormone levels and ovulation, making it more difficult to conceive [4, 5].

### Conclusion

Overall, the menstrual cycle and fertility are closely intertwined. Understanding how the menstrual cycle works and what factors can impact it can help individuals and couples make informed decisions about their reproductive health. If fertility issues are suspected, it's important to seek medical advice to identify and address any underlying causes.

### References

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