

# Menstruation

The purpose of this leaflet is to provide the patient with information about the nature of menstruation and the menstrual cycle.

The **menstrual cycle** is regulated by female sex hormones that are released in a cyclical pattern.

The **menstrual cycle** is counted from the first day of one period to the first day of the next. The average length of one menstrual cycle is 28 days. A normal menstrual cycle ranges from 21 to 35 days. A fluctuation of  $\pm 2$  days is considered normal. The length of the cycle may change at different times in life. It is normal for the cycle to be irregular in the first years after the onset of menstruation and before menopause. If menstruation is delayed, a pregnancy test should be done.

**Menstruation** is the shedding of the lining of the uterus that causes menstrual bleeding. Normal menstrual blood loss is 20-60 mL per cycle. The amount of blood lost can vary from cycle to cycle. Bleeding can last up to eight days; however, the average length of menstruation is five days. Bleeding may be heavier in the first few days. Pain in the lower abdomen and lower back, diarrhoea, breast tenderness, mood swings and fatigue may occur during menstruation.

**Ovulation** is the release of a mature egg from an ovarian follicle.

Ovulation typically occurs around 14 days before the onset of the next menstrual period.

Following ovulation, the egg travels down the fallopian tube, where fertilisation may take place. The fertilised egg then moves to the uterus, where it implants and develops into an embryo. If the egg is not fertilised, it passes out of the body along with the lining of the uterus during the next menstruation.

After ovulation, the ruptured follicle develops into a **corpus luteum**, which produces the hormone progesterone. If pregnancy occurs, the production of progesterone continues during the first months of pregnancy. If a woman does not become pregnant, the corpus luteum ceases its function and disappears around the time of menstruation. Sometimes **corpus luteum cysts** form. They usually disappear on their own within a few months but can cause abdominal pain and menstrual disorders. A ruptured corpus luteum cyst can cause intra-abdominal bleeding, which may require surgical intervention.

## **Is it normal to feel pain in the lower abdomen during ovulation?**

More than 40% of women experience abdominal pain during ovulation. The pain can be a dull cramp or a sharp and sudden twinge. It is usually on either the left or right side of the lower abdomen depending on which ovary is releasing the egg. The pain occurs because when the egg is released, a small amount of fluid (or blood) is also released. This can irritate nearby nerve endings.

The pain can last from a few minutes to a few days.

Some women experience abdominal pain during ovulation every month, others only occasionally.

You can take over-the-counter pain medications or use home remedies, such as a warm bath, to relieve the pain. You can prevent ovulation pain by preventing ovulation with hormonal contraceptives.

### **Is it normal to have vaginal bleeding during ovulation?**

Some women may experience bleeding or spotting for a few days during ovulation that is usually lighter than typical menstrual bleeding. This is caused by a rapid change in hormone levels (especially oestrogen) during ovulation.

In addition, vaginal discharge may become thicker and clearer during ovulation.

### **Vaginal discharge and menstrual cycle**

Normally, 1-4 mL of vaginal discharge is produced daily. The discharge is mostly odourless and clear.

The amount of vaginal discharge varies throughout the menstrual cycle. In the days following menstruation, there is usually less discharge. During ovulation, the discharge becomes heavier, thicker, clearer and stickier and may resemble raw egg white.

### **How do hormonal contraceptives affect the menstrual cycle?**

Combined hormonal contraceptives (pills, vaginal ring, patch) suppress the body's own natural production of oestrogen and progesterone. Therefore, when using combined hormonal contraceptives, oestrogen and progesterone levels do not fluctuate and ovulation does not occur.

Bleeding that occurs during the pill/ring/patch-free period is called breakthrough bleeding. This is not menstruation. Some women have occasional or no breakthrough bleeding, which is also normal. If contraception has not been used correctly, a pregnancy test is required to rule out pregnancy.

ITK1100

Approved by the decision of the Care Quality Commission of East Tallinn Central Hospital on 14.09.2022 (protocol no. 13-22)