

# Symptoms of menopausal transition

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The symptoms associated with menopausal-transition (*pre-menopause*) include:

- fertility decline
- irregular cycles
- heavy periods
- irregular bleeding
- hot flushes

### **Fertility decline:**

Fertility in the pre-menopause is diminished due to the decline in the number of ovarian follicles. The loss of follicles accelerates after the age of 38 years and very few oocytes remain by the last menstrual period.<sup>1,2</sup> The pre-menopause presumably begins when a critical number of functional follicles are lost through the process of follicular atresia.

### **Irregular cycles:**

There is an increase in the mean cycle lengths, however very long cycles may be interspaced with extremely short cycles.<sup>3</sup> Peri-menopause is characterized by ovulatory cycles interspersed with anovulatory cycles of varying lengths.<sup>4</sup> The cycle lengths although regular become shorter initially usually due to earlier ovulation and a shortened follicular phase. A short cycle may also be due to a short luteal phase. Then the cycles become irregular and later they get longer, up to two or three months or more in length. The irregular cycles in the >45 age group may well indicate anovulation.<sup>1</sup>

### **Heavy periods, irregular bleeding:**

Prolonged raised oestrogen levels which occurs in the long anovulatory cycles, and/or altered oestrogen to progesterone levels may lead to a greater build-up of the endometrium. Due to fluctuating oestrogen levels the thickened endometrium can break down causing menorrhagia (*heavy and prolonged periods*), or irregular bleeding or spotting. The irregular bleeding occurring at different times in the cycle e.g. in the late luteal phase or at ovulation, may be associated with low levels of circulating oestrogen and progesterone. **If intermittent bleeding persists the woman should consult her doctor**

### **Hot flush:**

The hot flush is related to vasomotor instability and results in a sudden sensation of heat or a warm feeling. Its duration varies from part of a second to several minutes and its frequency from once weekly to numerous hot flushes daily. Generally the rate of occurrence of the hot flush increases until the menopause and gradually disappears during the years after

menopause.<sup>5</sup>

#### References:

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