

## **Abstract**

**Title:** Possibilities of preventing painful menstruation and the specifics of women in sports.

**Objectives:** The aim of this thesis is to compare methods focusing on exercise eliminatig or alleviating menstrual pain and also describe the specifics of women in sports in more detail.

**Methods:** The main research method of the theoretical part of this diploma thesis is a search of Czech and foreign literature available from the university libraries of the Charles University, the Regional Science Library in Liberec, and then expert articles from the scientific databases Web of Science, Scopus and Pubmed. The practical part uses a method of comparison.

**Results:** Premenstrual syndrome is followed by both emotional and physical changes. The occurrence and intensity of this syndrome is caused by neurohormonal and neurotransmitter changes, but also by the woman's lifestyle (symptoms worsened by stress, poor nutrition). There is also a close connection with painful menstruation (so-called dysmenorrhoea) and improper function of the pelvic floor muscles. Well-known methods focusing on pelvic floor exercises include the Moses Method, Kegel exercises, DNS method, and hormonal yoga. Three studies focused on Kegel exercises showed an improvement in the course of PMS and a decrease of incontinence, with the DNS method there was an improvement in the course of migraines and an overall improvement in the patients' stability. Studies investigating the effect of hormonal yoga on PMS have shown a reduction in pain during PMS, an improvement in the perception of mental and physical health, and vitality.

**Keywords:** menstrual phases, hormones, premenstrual syndrome, women's training, nutrition, pelvic floor, health-compensatory exercises