



## MENSTRUAL PERIOD AND SPORT PERFORMANCE

Journal Website:  
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Submission Date: October 01, 2022, Accepted Date: October 05, 2022,

Published Date: October 10, 2022

Crossref doi: <https://doi.org/10.37547/ijmscr/Volume02Issue10-01>

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### ABSTRACT

In this article analyzes the sports performance and physical condition of female girls in the pre-competitive period of preparation for international competitions in the pre- and menstrual cycle.

### KEYWORDS

Menstruation, women, girls, hormones, hyper menstrual syndrome, sports training.

### INTRODUCTION

Menstruation is the final stage of a complex, rhythmic neurohumoral process in a woman's body, associated with the function of the whole organism as a whole and, in particular, the genital organs, where the endocrine system takes an active part, corrected and regulated by the central nervous system.

Menstrual dysfunction can be associated with many individual causes and their complex and are of a different nature.

Often these disorders and, in particular, hypermenstrual syndrome and algomenorrhea affect

the general condition of a woman, lowering her performance, both mental and physical, and sometimes cause suffering, bedridden her, making her temporarily unable to work.

The cause of algomenorrhoea, in particular, in girls and unpregnant young women, can be a variety of factors, taken both individually and in combination with each other, such as: underdevelopment of the uterus, mechanical obstacles to the outflow of menstrual blood (bends of the uterus, narrowing and stricture of the cervical canal), neurasthenia and a violation of the

mental state of a woman, vagotonia, malformations of the uterus, a violation of the hormonal activity of the ovary, chronic, debilitating infectious diseases, diabetes, blood disease, mental and physical overwork, etc.

Of course, during menstruation and, in particular, on premenstrual days, some women and girls have a number of subjective unpleasant sensations that affect the general condition of athletes, which can lead to a temporary disruption of their performance, to a decrease in sports performance, and a breakdown during performances in this period.

We analyzed our observations on this issue in 93 athletes (58 women and 35 girls) aged 14 to 29 who are preparing for the Olympic competitions in Yangiabad and Cholponat in 12 sports (running at various distances, gymnastics, volleyball, running with hurdles, all-around, jumping, discus), among which were athletes from Uzbekistan and Kazakhstan (volleyball, gymnastics).

Most of them were record holders, champions of Uzbekistan, Kazakhstan and the world. Of the 43 athletes, only 23 (13 women and 10 girls) did not have any subjective complaints in the premenstrual and postmenstrual periods.

In the premenstrual period, minor manifestations of premenstrual syndrome and, in particular, mild pains that are not reflected (according to athletes) in physical performance, were observed in 27 women and girls (20 women and 7 girls): 13 of them in combination with similar manifestations during time of menstruation.

Endless pains in the lower abdomen, lower back, sacrum, in the hips, irritability, general malaise, affecting physical performance (according to athletes)

in the premenstrual period, were observed in 21 women and girls (13 women and 8 girls), of which 10 had a clear negative impact on athletic performance.

No less interesting are the data on the athletic form of athletes during menstruation: malaise, mild pain that did not significantly affect athletic performance were observed in 23 people (18 women and 5 girls), 13 of them had combinations with the indicated manifestations in the premenstrual period.

Severe malaise, pain, irritability were noted during menstruation in 11 athletes (3 women and 8 girls); 2 of them - in combination with similar manifestations in the premenstrual period.

The postmenstrual period in all athletes (with the exception of two who had weakness) proceeded normally, with the preservation of sports performance.

What do these data say? First of all, about the fact that in the days preceding menstruation, and during them, most athletes experience certain changes in the general state of health, which can have an adverse effect on women and girls.

sports performance, and therefore on sports performance during performances.

Nevertheless, it should be noted that due to systematic training sessions, participation in various competitions, including in the pre- and menstrual periods, the body of athletes, as it were, adapts to physical activity, which is why most of them retain their ability to work without harming sports performance. . Thus, out of 43 female athletes surveyed at the base, 23 had no complaints during pre- and menstrual periods, and 20 had only mild manifestations of pre- and menstrual syndrome, which did not affect their physical performance, sports performance during competitions (according to the words of the athletes). Thus, in 34 female athletes out

of 93, the subjective manifestations of pre- and menstrual syndrome did not have a significant impact on the working capacity of female athletes, and did not affect sports performance.

In 19 women and girls in the pre-menstrual period, subjective manifestations of algomenorrhea were noted, affecting physical performance (sports performance), and 10 of them had incapacity for work due to disturbing pain, weakness, general malaise, irritability, etc.

It goes without saying that if an athlete with severe manifestations of algomenorrhea has to perform on the decisive days of the competition, of course, disruptions in performances at international competitions are possible.

During a 1.5-month follow-up of female athletes in Yangiabal and Cholponat, we repeatedly observed the adverse effect of the pre- and menstrual period, with its violations, on the ability of female athletes to work.

To confirm the above, we give an example of a breakdown in competitions due to the pathological course of the menstrual period (algodysmenorrhea) in an athlete, a record holder of Uzbekistan in the middle-distance run, due to her forced performance during painful menstruation in the semifinal qualifying competitions in 800 m running.

Athlete S-va, 22 years old, girl, did not suffer from female diseases. Type of menstruation indicates malaise in the premenstrual period and intense pain in the lumbar region from the onset of menstruation.

Participated in the qualifying competitions in the 800m run, reached the semi-finals, the semi-final performance coincided with the onset of a very painful period. She told the team doctor that she could not compete due to intense back pain, weakness and

general malaise. The team doctor, after consulting with the obstetrician-gynecologist, was forced to give the athlete 0.5 aspirin 40 minutes before the performance, but despite the decrease in pain after that, the athlete could not restore her sports form, came to the final exhausted, fourth in time, and dropped out from further competitions.

Approximately the same fate befell another athlete in artistic gymnastics - 3rd, due to menstrual dysfunction.

## CONCLUSIONS

Thus, we came to the conclusion about the adverse effect of the pre- and menstrual period with its violations (and in particular with algomenorrhea) in athletes on their physical performance, on sports performance.

We believe that when selecting athletes for republican and international competitions, it is necessary to take into account the peculiarities of their menstrual period and in some cases not include athletes with manifestations of algomenorrhea in the lists of participants in the competition because of the real possibility of a breakdown at the decisive moment of the performance.

As for the artificial suppression of menstruation, the prevention of their onset by the use of hormonal agents (proposed by some foreign authors), as a measure to preserve sports performance on the days of the performance of athletes, we consider such proposals and actions to be ant physiological for the body of a young woman (girl), because long-term use hormones are far from indifferent to the function of a young organism as a whole and the subsequent (after the end of the competition) sexual, autonomic, generative and hormonal functions of the ovary, in particular; therefore, naturally, the method of artificial

suppression of menstruation in sports interests cannot justify itself, and, therefore, cannot be acceptable in sports.

Strict accounting of the state of athletes in the pre- and menstrual periods, identification among persons suffering from manifestations of dysmenorrhea, and, in particular, algodysmenorrhea and hypermenses syndrome, timely elimination of some of them will certainly help us in improving sports performance in competitions.

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