



# Risk factors and their negative impact on the formation reproductive function (Overview)

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## ABSTRACT

The identification of risk factors and the prediction of disorders of the reproductive health of adolescent girls, the development of a modern strategy for the formation of reproductive potential by strengthening the preventive focus is an actual practical area of national health care.

## Keywords

reproductive health, teenage girls, health maiden, young women

The issues of protecting the somatic and reproductive health of girls and girls are an urgent problem of modern medicine all over the world. At present, there is no doubt that the state of the reproductive function of women is largely determined by its development in childhood and adolescence. The formation of the reproductive system of girls is very closely related to their physical development, while it has been established that adverse factors, regardless of their nature, cause violations of the formation of reproductive function. Early detection of these disorders and timely correction is a manageable factor in maintaining reproductive health during puberty [1,3].

According to many scientists of the world, ante - and perinatal factors, the quality of housing, bad habits of parents (smoking, drug and alcohol use), their education, and currently socio-economic instability (low material level, nutritional patterns), somatic diseases, along with environmental and climatic and geographical factors of our Republic of Uzbekistan, affect the health of girls and girls [8].

Women's health needs are known to change over the course of their lives. The approach to protecting the health of women,

throughout her life, declares that not only the reproductive period, the period of motherhood is important, it is also important to take care of the health of girls and girls equally by predicting pathological conditions in their general reproductive health and negative prognostic signs in implementation of their reproductive function [14].

Unfortunately, the analysis of literary sources shows that in recent decades, all over the world, as well as in our region, the reproductive potential of modern adolescent girls has stable and predominantly unfavorable characteristics, among which we should highlight: a high prevalence of reproductively significant bad habits, a large percentage of deviations in physical, sexual and psychosexual development, a high percentage of somatic, gynecological and venereal morbidity. In addition, the formation of inadequate reproductive and family attitudes, a low level of sex education and contraceptive activity [6,12].

In recent years, many publications have appeared in the literature reflecting the negative trends in the physical development of adolescent girls. All authors are unanimous in their opinion that since the beginning of the 21st century in the CIS countries there has been a tendency towards its retardation and

disharmony, especially in areas with extreme and subextreme social and geographical living conditions, a high level of man-made pollution [9].

The results of monitoring physical development in the last ten years reveal a clear trend towards stagnation and gracilization of the adolescent population, which, according to researchers, is associated both with the negative influence of prenatal, social and ecological-geographic factors mediated by the development of nutritional imbalance, and with the implementation of the genetic determinism of functional decline. reserves of the reproductive system [10].

At present, there is no doubt about the negative impact of chronic somatic pathologies on the formation of the reproductive potential of adolescent girls, which attracts the attention of clinicians and specialists in preventive medicine to their state of health. EGD has a significant effect on the course of the pubertal period, forming foci of latent infection in the body, as well as diseases involving neuroendocrine and immune mechanisms in the pathological process [2,4].

Untimely treatment of infections, including sexually transmitted infections, can be the cause of congenital infections and, as a result, frequent disability in children who have had congenital infections (cytomegalovirus, herpes simplex virus, chlamydia, mycoplasmosis, viral hepatitis B and C, HIV infection).

Most researchers state that among modern girls there is a high prevalence of diseases of the respiratory, digestive, urinary, endocrine and cardiovascular systems, these classes of diseases pose a real threat not only to the violation of the formation of the reproductive system, but also the possibility of adequate implementation of the reproductive function in the future [5].

Currently, obesity is a serious health problem in all countries of the world. According to WHO, approximately 1.5 billion adults in the world today are overweight. An increase in the proportion of overweight people is observed everywhere and affects, among other things, girls of early reproductive

age. About 30% of girls are obese. According to the WHO, by 2025 an increase in the incidence of obesity among the female population up to 50% is expected. With obesity, various forms of menstrual irregularities, such as oligomenorrhea and amenorrhea, occur 2-5 times more often. The incidence of infertility in obese women is 33.6% compared to 18.6% of women with normal body weight [11].

Obesity affects ovulation, oocyte maturation, endometrial remodeling, endometrial receptivity, implantation process, and miscarriage rate [13].

Obesity impairs reproductive function not only through the mechanisms of ovulation disorders, a decrease in fertility is also noted in patients with ovulatory regular cycles. It should be noted that in any form of obesity, there is a pathology of the hypothalamic-pituitary system, which leads to ovarian insufficiency [2,8].

Obesity also often causes difficulties with ART, influencing the outcomes of ART programs. Based on the foregoing, it should be noted once again that obese girls should be classified as a group of high risk of reproductive health disorders and also with low reproductive potential.

Today, the reproductive potential of adolescent girls suffering from diseases of the kidneys and urinary system is of particular concern. Considering the process of embryogenesis, the urinary system and genital organs are closely connected by the commonality of innervation, blood and lymph circulation [3,7].

Epithelial cells of the vagina, urethra, bladder, and ureters are target cells for endogenous estrogens. At the same time, steroids affect not only epithelial cells and microbiocenosis, but also the structures that determine the functions of the bladder [6].

According to the results of a scientific study in the study of the reproductive health of girls with various pathologies of the kidneys and urinary tract, the syndrome of emerging polycystic ovaries was detected in 30% of the subjects, and in 15% of patients, primary oligomenorrhea.

In adolescent girls who suffer from chronic pyelonephritis, significant violations of sexual development and menstrual function are revealed. Under conditions of a chronic microbial-inflammatory process in the urinary system, frequent inflammatory diseases of the vagina are detected with a prevalence of opportunistic flora in the etiology, a manifestation of a violation of local protection factors - the vaginal microbiota, in chronic kidney pathology, accompanied by a dysfunction in the production of sex hormones with a prevalence of estrogen against the background of hypoprogesteronemia. significant increase in cortisol levels [10,12].

The study of the state of the reproductive potential of girls and girls with chronic kidney disease is of current importance, as it will allow the development of complex methods for correcting combined urogenital pathology, as well as maintaining their reproductive health.

In the course of numerous studies conducted in recent decades, a high pathological prevalence of gynecological diseases in adolescent girls has been established [5, 7].

Their structure is dominated by menstrual disorders, inflammatory diseases of the genital organs and impaired sexual development. It should be noted that there is an increase in publications on breast diseases and ovarian neoplasms in adolescent girls[5].

It is known that menstrual function is a sensitive indicator of the state of general and reproductive health of girls and girls. The optimal time for the onset of the first menstruation is the main sign of puberty in the female body, indicating the readiness of the body for childbearing. Risk factors for disorders of the ovarian-menstrual cycle include a high level of stress, strict regulation of life, educational overload and a high level of social claims, obesity, violation of biological rhythms, limitation of physical activity with a tendency to overeat, frequent acute respiratory viral infections, vegetovascular dystonia, as well as anamnesis data on the development of preeclampsia in the mother, aggravated heredity for obesity and pathology of the

reproductive sphere, thyroid gland pathology, liver dysfunction, as well as a deficiency of vitamins and microelements in the diet [6,11].

At a young age, girls have a widespread deficiency of vitamins, magnesium, zinc, iodine, selenium, calcium and a number of other macro- and microelements, which is associated not only with insufficient intake of these micronutrients from food, but also with increased neuropsychic stress during the study period, problems in communicating with parents and peers, becoming a professional, etc. [5].

The estrogen-like action of vitamins B2 and B6 has been experimentally proven, which synergistically with estradiol increase the mass of the uterus (with its deficiency). Vitamin B1 enhances the action of estradiol without showing an independent estrogen-like effect. The lack of vitamin E in the body of adolescent girls negatively affects the function of the hypothalamus, leads to a change in the processes of prostaglandin biosynthesis, in violation of the synthesis or metabolism of which dysmenorrhea occurs [14].

According to their data, adolescent girls born prematurely, regardless of gestational age, were characterized by: a higher serum testosterone level, a lowered FSH level, an AMH concentration of more than 2.5 ng / ml and hyperandrogenism were more often noted. They were characterized by a high ovarian reserve, which was formed due to polycystic ovary syndrome, and for adolescents born prematurely with intrauterine growth retardation, a reduced ovarian reserve (AMH less than 1 ng / ml) and a lower serum testosterone level than in patients born without growth retardation. All of the above once again confirms that the intranatal development of the fetus, the onset of childbirth and the nature of their course has a direct correlation with subsequent periods of development of the body and the formation of the reproductive system and their activities [9].

One of the significant factors that reduce the level of public health is iodine deficiency, which causes the development of a number of pathological conditions, and has adverse consequences in the early stages of the body's

formation, but also causes disruption in growth and sexual development. In addition, the iodine deficiency state has a huge impact on the characteristics of the hormonal status of girls and adolescent girls and has a significant role in the development of neuroendocrine regulation disorders and menarche [11].

Features of the menstrual cycle during puberty is a clinical criterion of puberty associated with the formation of adequate interactions in the pituitary-hypothalamic and ovarian systems and the interaction of the central nervous system. Scientists all over the world have proven the influence of psychological conflicts and stresses on the coordinated function of the hypothalamic-pituitary-ovarian system [4].

At present, it is known that psychological factors belong to a number of the most powerful and widespread natural stimuli that affect the regulation of endocrine functions, especially the function of the reproductive system [2].

It is rather difficult to identify the psychogenic nature of menstrual irregularities and indirect reproductive function. In such a situation, it becomes absolutely necessary to involve a psychotherapist in the diagnosis and treatment.

Thus, the identification of risk factors and the prediction of disorders of the reproductive health of adolescent girls, the development of a modern strategy for the formation of reproductive potential by strengthening the preventive focus is an actual practical area of national health care.

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