

## EFFECTS OF EXERCISE DURING PREGNANCY ON MATERNAL AND FETAL WELL-BEING

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**Introduction.** Pregnancy is an ideal time for positive lifestyle modifications, including increasing physical activity and eating a more healthy diet. In the absence of medical or obstetrical complications, pregnant women should be encouraged to continue and maintain an active lifestyle during their pregnancies. Regular aerobic exercise during pregnancy appears to maintain or improve physical fitness, help with weight management, and enhance psychological well-being.

Thus, the **research aim** is presentation of physical exercises effects during pregnancy on maternal and fetal well-being. The main research task is to define the advantages and restrictions of physical exercises during pregnancy period.

**Methods of research:** literature analysis, comparative method and method of structural analysis.

**Results and discussion.** The worldwide community of gynecologists and obstetricians are intensively investigating this topic. Thus, the researches of their Ukrainian colleagues are scarce or not available to the general public. Therefore, we used the recommendations that are of foreign origin, but are of great value for Ukrainian women as well. For example, the American College of Obstetricians and Gynecologists makes the following recommendations: the overall health, obstetric, and medical risks should be reviewed before a pregnant woman is prescribed an exercise programme. In the absence of contraindications, a pregnant woman should be encouraged to engage in regular, moderate intensity physical activity [2].

However, there are some restrictions to exercise because of pre-existing or developing medical conditions, and pregnancy is not different. In addition, certain obstetric complications may develop in pregnant women regardless of the previous level of fitness, which could preclude them from continuing to exercise safely during pregnancy. Women should be advised to remain well hydrated, avoid long periods of lying flat on their backs, and stop exercising if they have any of the warning signs such as: vaginal bleeding, dyspnoea before exertion, dizziness, headache, chest pain, muscle weakness, calf pain or swelling (need to exclude thrombophlebitis), preterm labour, decreased fetal movement, amniotic fluid leakage.

Tasks and principles of exercises for pregnant women depend on the pregnancy period. Generally, the whole pregnancy period is broken down into three trimesters: the first (till the 16<sup>th</sup> week), the second (the 17<sup>th</sup> – 32<sup>nd</sup> weeks) and the third one (from the 33<sup>rd</sup> week and till the childbirth).

The first trimester is characterized by violations of autonomic nervous system, increase of metabolism and increase in oxygen need. Therefore, the tasks of physical exercises of this period are to develop rhythmic breathing, to adjust gradually cardiovascular system of a mother to physical load, to increase oxygen supply to the body of a pregnant woman, to promote normalization of autonomic nervous system.

The tasks of the second trimester are as follows: to strengthen muscles engaged in the childbirth; to ensure normal blood supply to the fetus, and therefore to ensure its oxygen supply; to promote cardiovascular system adaptation of a mother to physical load.

The third trimester is characterized by limitations of motor activity of a woman. Her cardiovascular and respiratory systems are under great pressure caused by high position of a diaphragm and venous stasis in pelvic organs. Therefore, the tasks of physical exercises of this period are

to prevent venous stasis in pelvic organs and lower limbs; and to consolidate effect of physical exercises of the previous periods. [1]

#### Benefits of exercise during pregnancy

- Lifts your spirits – exercise boosts levels of serotonin, a brain chemical linked to mood, putting you in better spirits.
- Prepare your body for childbirth – labour requires stamina, focus and plenty of determination; the fitter you are, the better equipped you will be for giving birth.
- Reduce constipation – by moving more you'll accelerate movement in your intestine.
- Faster return to pre-pregnancy healthy weight – you will gain less body fat, making it easier to lose the excess kilos once baby is born.
- Sleep better – exercise can assist in managing restlessness and disturbed sleep during pregnancy.
- Maintain a level of fitness – if you were a regular exerciser before falling pregnant, you'll be keen to stay in shape.
- Reduce stress – pregnancy is both a joyous and stressful time, exercise can temper the emotional rollercoaster.
- Reduce pregnancy discomfort – exercise can help manage back pain and strain as your belly grows.
- Improve your self-image – exercise increases the blood flow to your skin, giving you a healthy glow.
- Me-time: – it will be the last time you can enjoy your exercise high without having to coordinate babysitters and sleep times once baby is born.
- Preparation for the physical strain of labour
- Quicker post-labour recovery time.

**Conclusions.** Despite the fact that pregnancy is associated with profound anatomic and physiologic changes, exercise has minimal risks and has been shown to benefit most women. Women with uncomplicated pregnancies should be encouraged to engage in physical activities before, during, and after pregnancy.

#### References

1. Мухін В. М. Фізична реабілітація / Мухін В. М. – Київ: Олімпійська література, 2010. – С. 446-453.
2. ACOG Committee Opinion No. 267: Exercise During Pregnancy and the Postpartum Period [Electronic resource]. – Access mode : [http://journals.lww.com/greenjournal/Fulltext/2002/01000/ACOG\\_Committee\\_Opinion\\_No\\_\\_267\\_\\_Exercise\\_During.30.aspx](http://journals.lww.com/greenjournal/Fulltext/2002/01000/ACOG_Committee_Opinion_No__267__Exercise_During.30.aspx).