

# Hysterectomy in Patients of Reproductive Age: Restorative Treatment and Rehabilitation

Konstantin Anatolyevich Bugaevsky<sup>1\*</sup>

<sup>1</sup>Department of Medical and Biological Foundations of Sports and Physical Rehabilitation, The Petro Mohyla Black Sea State University, Nilolaev, Ukraine.

**Received date:** 18 May 2024; **Accepted date:** 01 June 2024; **Published date:** 06 June 2024

**Corresponding author:** Konstantin Anatolyevich Bugaevsky, Assistant Professor, The Petro Mohyla Black Sea State University, Nikolaev, Ukraine.

**Citation:** Konstantin Anatolyevich Bugaevsky. Hysterectomy in Patients of Reproductive Age: Restorative Treatment and Rehabilitation. Journal of Medical and Clinical Case Reports 1(4). <https://doi.org/10.61615/JMCCR/2024/JUNE027140606>

**Copyright:** © 2024 Konstantin Anatolyevich Bugaevsky. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## Annotation

This article demonstrated the results of the study of the practical usage of complex methods of physical rehabilitation for patients of reproductive age after suffering a hysterectomy, which produced different operative techniques. Peculiarities of rehabilitation methods after different ways to remove the uterus. Practical recommendations for rehabilitation.

**Keywords:** patient, reproductive age, hysterectomy, laparotomy, laparoscopy, physical rehabilitation, Kegel exercises.

## Introduction

Today, the problem of rehabilitation of gynecological patients who have undergone surgical removal of the uterus is particularly acute. According to official statistics, 85–90% of women of reproductive age undergo hysterectomy [1,6,9]. In most countries of the world, the most common gynecological operations are supravaginal amputation and hysterectomy (subtotal and total hysterectomy). In Sweden, hysterectomy accounts for 38% of abdominal gynecological operations; in the USA, 36%; in the UK – 25% [1,9]. In Ukraine, up to 90% of hysterectomies in reproductive age are performed for benign uterine tumors [6,9]. Removal of the uterus is the most common intervention in surgical gynecological practice; the frequency of this operation ranges from 25% to 38% [1,6,9]. The incidence of hysterectomy, with or without removal of the uterus, is the highest in the world among all gynecological surgical interventions [1,9]. The average age at which women undergo this operation due to gynecological diseases is 40.5 years, due to obstetric complications - up to 35 years [1,6].

The medical, social, and psychological aspects of hysterectomy in women of reproductive age have not yet been sufficiently studied. [1,4,8]. When using physical rehabilitation after gynecological operations, this issue is covered, according to a number of researchers, to an extremely insufficient extent [1,3,6]. All this dictates the need to actively study the consequences of hysterectomy in women of reproductive age. To overcome them, it is relevant to more actively use methods and means of physical rehabilitation, such as therapeutic physical education, therapeutic gymnastics, special Kegel exercises, fitball, methods and means of physical therapy, reflexology, various types of massage [2,3,5,10].

Before moving on to discussing the materials of our research, I consider it necessary to reflect on the features of hysterectomy operations. In our opinion, this is directly related to the methods and means of physical rehabilitation used in the postoperative period at all stages of rehabilitation. Hysterectomy is a surgical procedure in which the uterus is removed [1,6].

Removal of the uterus changes the anatomical and functional relationships of the pelvic organs and the architectonics of the vaginal vaults, which is very important during postoperative rehabilitation [1,3,6]. Removal of the uterus is usually performed when uterine tumors are detected and in cases where other methods of treating uterine diseases are ineffective [1,6].

The decision on the method of performing the operation is made by the attending physician, taking into account the form and stage of the patient's disease, her condition, age, and other factors. There are different types of hysterectomy, differing in the volume of tissue removed and the technique used [1,6,9]. An open (laparotomy) hysterectomy is the removal of the uterus, performed through an open incision in the anterior abdominal wall. An incision in the lower abdomen is used to access the uterus. This method of operation is good because all organs are clearly visible, and the condition of nearby tissues can be determined [1,7,9]. With this type of surgery, a radical hysterectomy is most often performed, in which the surgeon removes the patient's uterus, nearby tissue (ligaments and lymph nodes that previously supported the organ), as well as the upper third of the vagina. The fallopian tubes and ovaries are usually preserved. At the same time, the topography of the pelvic organs changes significantly, which can negatively affect the functioning of the bladder and intestines. Because the ligaments are removed, the pelvic floor muscles often weaken and cannot support the vagina as well as they should. To prevent possible postoperative complications, patients, after removal of the uterus, need to perform exercise therapy and Kegel exercises, exercise on a fitball, aimed at strengthening the pelvic floor muscles [2,5,10].

Laparoscopic hysterectomy is the least traumatic way of performing this operation. Removal of the uterus is performed using special laparoscopic manipulator devices. The use of laparoscopy minimizes the risk of complications and damage to neighboring organs [1,7,9]. The recovery of patients after removal of the uterus using the laparoscopic method takes less

time and is much easier than the rehabilitation of a patient who has an open hysterectomy. For this type of operation, hospital stay is limited to 3-4 days. Rehabilitation requires 2 to 4 weeks of active recovery period, with individual use of various means and methods of physical rehabilitation [1,7,9].

A vaginal hysterectomy is the safest and most cost-effective way to remove the uterus. This is stated in order No. 582 of the Ministry of Health of Ukraine [6,1,9]. The length of hospital stay after this type of operation (from 2 to 4 days) and the duration of postoperative rehabilitation (2 to 3 weeks) will be minimal here [1,6,9].

### Aim of Study

The purpose of the study is to develop principles and evaluate the impact of the proposed physical rehabilitation program on patients after a hysterectomy performed by different approaches, in order to preserve their health and improve their quality of life.

### Research Hypothesis

The hypothesis of the study is the assumption that the effectiveness of restorative treatment and the speed of recovery of operated patients primarily depends on the method of hysterectomy.

### Material and Methods

When conducting the research itself and, based on its results, writing an original research article, the author used research methods such as literary critical analysis of available sources of information on the issue being studied; studying all medical documentation of patients, first of all - the results of studies, including data from a special gynecological examination, data from ultrasound and histological examination, protocols of surgical interventions performed by different methods. All patients who took part in the study conducted by the author gave their voluntary consent, both oral and written, to participate in it.

The research and practical application of a set of physical rehabilitation methods was carried out for 3 months on the basis of the gynecological department and antenatal clinic of the municipal institution “Novokakhovskaya Central City Hospital”, Kherson region, Ukraine.

### Results and Discussion

The main task of rehabilitation of women after hysterectomy is to support the functional state of the female body for its speedy adaptation and normalization of the functions of all organs and systems in the postoperative period [1,6,8]. However, to date, there are no unified tactics developed for the use of methods and means of physical rehabilitation in gynecological patients after hysterectomy. These facts served as the basis for us to conduct a similar study and attempt to develop an approximate set of means and methods of physical rehabilitation for patients of reproductive age who have undergone surgical removal of the uterus.

The patients were divided into three groups. The first group consisted of patients after supravaginal amputation of the uterus, performed by laparotomy (n=4), the second group - patients after laparoscopic removal of the uterus (n=5). The third group included patients who had hysterectomy through the vaginal approach (n=4). 13 patients, aged from 26 to 42 years, took part in the study. The average age of the patients who took part in the study was 30.59±0.23 years. All patients are married and have from 1 to 3

children. The duration of existing uterine diseases in the study group was 3–6 years, on average 4.8±0.4 years. 8 patients (61.54%) had a combination of subserous and submucous myomas (with profuse bleeding), 2 (15.39%) had submucosal myomatous nodes with symptoms of metro menorrhagia, 1 patient (7.69%) was diagnosed with multiple subserous myomatous nodes, a significant increase in the size of the uterus. In all 13 patients, conservative treatment for 3–6 years did not bring improvement. All surgical interventions were planned. The female patients underwent all the necessary general clinical examinations, ultrasound diagnostics, gynecological examinations, and laboratory diagnostics.

Preoperative preparation included psycho-prophylactic preparation, explaining to patients the features of the choice of surgical intervention, possible immediate and long-term complications and consequences of the operation, and features of the early and late postoperative periods. Particular attention during psychoprophylactic preparation was paid to the characteristics of sexual life and physical activity in the postoperative period [4,8]. In the early postoperative period, the patient's attention was focused on detailing the methods and means of physical rehabilitation, both in a hospital setting for the entire period of stay there, in a physical therapy room at an antenatal clinic, and at home [3,5].

In all three groups, in the postoperative period, in a hospital setting, and later in the antenatal clinic, within 30-45 days after the operations, we used a set of individual methods and means of physical rehabilitation. The features of the exercises used in the postoperative period were determined by the technique of performing hysterectomy, as well as the individual course of the postoperative period. 24–36 hours after surgery, the patient began to get up and walk. Before the operation itself and before getting out of bed, in order to prevent thromboembolism, all patients had their legs bandaged with elastic bandages; after discharge, they needed to wear compression garments for 1.5–2 months [3,5]. After abdominal surgery, the patient spends 6-8 days in the hospital, then they require up to 6-8 weeks of active rehabilitation [3]. In the early postoperative period, for patients with hysterectomy, the starting position for performing physical exercises is the forced supine position [3,5]. The complex of physical exercises in the early postoperative period in all 3 groups consisted mainly of breathing exercises of a static and dynamic nature, as well as exercises for the distal parts of the upper and lower extremities, exercises with the utterance of hissing sounds, and prolonged exhalation [3,5]. Movements of the lower limbs were carried out in turns without lifting the feet from the bed. Patients undergoing vaginal hysterectomy were advised to leave their legs together on the 1st day after surgery. From the 2nd day, they could bend at the knee joints, but not apart, and also turn in bed with their legs together. These patients were allowed to get out of bed only from a prone position [3,5]. Patients after laparotomy hysterectomies are not allowed to strain their abdominal muscles in the first 1–2 days after surgery. After permission to stand, usually after 24–36 hours, patients performed therapeutic exercises while sitting on a chair [3,5].

After discharge from the gynecological hospital, in the absence of postoperative complications and contraindications, patients of the three groups participating in the study were offered individual sets of physical rehabilitation methods for a period of 1.5–2 months. The duration of this set

of special exercises was 35–40 minutes. It was performed every day in the morning. Also, three times a week, the patients independently, at home, performed exercises recommended, taking into account their individual characteristics and well-being. For the first 2 weeks, the patients mastered and performed the rehabilitation complexes proposed to them in the conditions of the exercise therapy room of the antenatal clinic. Over the next 2–4 weeks, the patients performed the proposed rehabilitation techniques at home.

Female patients of the first group were offered a complex of physical rehabilitation, which included physical therapy and fitball. Therapeutic exercise was proposed to improve the blood supply to the pelvic organs, strengthen the muscular-ligamentous apparatus of the pelvic floor, and restore the disturbed topographic-anatomical relationships of the pelvic organs according to the method of D. N. Atabekov and K. N. P., modified by F. A. Yunusov (1985) [3,5].

In the second group of patients, after laparoscopic removal of the uterus, physical therapy was used (a set of special exercises for the abdominal and pelvic floor muscles, according to the method of V. E. Vasilyeva (1970) [3,5], special Kegel exercises according to the standard method [2,10].

In the third group of patients, after vaginal hysterectomy, they used training of the pelvic floor muscles using special Kegel exercises, therapeutic exercises in the form of exercises in isotonic and isometric mode according to the method of V. A. Epifanov (1989), fitball [3,5,10].

Also, after 3 months of physical rehabilitation, a survey was conducted among patients of all 3 groups. According to the data obtained, after laparotomy, libido did not change in 63.2% of women, after laparoscopy - in 69.5%, with vaginal access - in 76.8%, satisfaction with sexual life - in 60.1%, respectively 62.4% and 64.3% of patients. Sexual life was restored, on average, after 2–3 months in 11 patients (84.62%) - 2 patients after laparotomy, and all after laparoscopic and vaginal operations, and in 2 (15.38%), after laparotomy hysteroscopy, within six months after the surgical intervention. The frequency of sexual intercourse remained the same in 62.2% of patients in the first group, 75% in the second, and 80.1% in the third group.

According to the survey data, the ability to work in all patients was restored 1–1.5 months after the operation and did not depend on the method of its implementation. The quality of life increased compared to the preoperative level 2–3 months after surgical treatment, primarily in patients who had hysterectomy performed through the vaginal approach and laparoscopically. These data practically correspond to the available literature data [4,5,8].

## Conclusions

1. These studies showed that the proposed differentiated rehabilitation program for patients who have undergone hysterectomy, using different surgical methods, can be used as a base when conducting physical rehabilitation in patients after hysterectomy.
2. The hypothesis put forward is that the hypothesis of study is the assumption that the effectiveness of restorative treatment and the speed of recovery of operated patients primarily depends on the method of hysterectomy, completely confirmed.

The prospect of further research in this direction is to study the psychological status and quality of life of patients in a more distant period after hysterectomy (6 months, 1-2 years, 3-5 years), taking into account their performance and sexual life.

## References

1. Dobrokhotova Y.E. (2000). Hysterectomy in the reproductive age (systemic changes in a woman's body, and methods of their correction): Abstract. dis. dr. med. Science. 40.
2. Kalashnikov A.S. (2014). Kegel exercises. Cheboksary. 38.
3. Kuldenbaeva SA. (2006). Medical rehabilitation of women of reproductive age after hysterectomy. Abstract dis. The candidate of medical sciences // Bishkek. 25.
4. Melnikov S.M. (2007). Considering the state of sexual health of women in the complex rehabilitation after hysterectomy // Scientific journal "Pediatrics, Obstetrics and Gynecology." 6:84-87.
5. Peresada O.A. (2007). Complex rehabilitation after gynecological operations // Scientific journal "Medical News". Minsk: YupoKomInfoMed. 2:28-34.
6. Rud O.V. (2007). Clinical aspects of reproductive age hysterectomy // Scientific journal "Pediatrics, Obstetrics and Gynecology." 2:82 - 83.
7. Savelieva G.M. Styrov S.V. Tumar A.V. (2007). Comparative evaluation of laparoscopic hysterectomy and laparotomncheskogo method // In Endoscopy in the diagnosis and treatment of uterine pathology. Modcow. 381-382.
8. Stepanovichus E.N. (2006). Features of the mental and emotional state of patients after hysterectomy depending on surgical approach // Herald SMU. 2:49-52.
9. Yuzko O.M. Laptev T.A., Field S.P. (2002). Laparoscopic operative Gynecology and hysteroscopy: Part I. Ministry of Health of Ukraine recommended as a textbook for students of III-IV accreditation. Chernivtsi: Medical Academy. 92.
10. Perry J.D. Ostomy J.D. Hullet L.T. (1990). The role of home trainers in Kegel's Exercise Program for the treatment of incontinence // Wound Management. 30: 51.