AMERICAN ACADEMIC PUBLISHER

INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

ISSN NUMBER: 2692 - 5206 Volume 6. No 03. March ,2026

SURGICAL TREATMENT OF MORBID OBESITY

O'tkirov Mirziyod Mirsaidovich
Tashkent State Medical University, assistant
mirziyodotkirov@gamil.com
Utegenov Yusup Maxsetbayevich
Tashkent State Medical University, assistant
yusup.utegenov.4994@gmail.com
Qurbonov Abdulfayz Abduraim o'g'li
Tashkent State Medical University, master student
qurbonovabdulfayz1996@gmail.com

Abstract: This article investigates the surgical methods for treating morbid obesity, including types of operations and their specific features.

Keywords: morbid obesity, gastric bypass, gastric banding, sleeve gastrectomy

Long-term studies have shown that surgical intervention (bariatric surgery) has the most significant effect in treating obesity. Only surgical treatment can provide a definitive solution to this problem.

Surgical treatment of morbid obesity primarily develops in two directions, both of which allow effective reduction of the patient's body weight. The first approach reduces the absorptive surface of the small intestine, creating conditions for poor digestion and incomplete nutrient absorption (malabsorption). Such surgical interventions are usually referred to as maneuver operations. The second approach involves reducing stomach volume through gastro-restrictive surgery. Additionally, techniques combining both approaches exist, such as biliopancreatic bypass and distal gastric bypass. Some authors also classify dermatolipectomy as a bariatric procedure, although it is mainly used as an adjunct to radical MS surgery or for cosmetic purposes[1].

Currently, three main surgical procedures are most widely used worldwide for obesity treatment. These operations represent decades of refinement in bariatric surgery and offer maximum efficacy in combating excess weight while minimizing side effects:

1. Gastric Bypass (Roux-en-Y): This operation has the longest history, dating back to the 1960s. The stomach is divided into small and large sections that do not communicate with each other. The small stomach is connected to the small intestine, allowing food to pass via a short route. This procedure has two main effects: (1) the small stomach volume is about 50 ml, limiting food intake, and (2) nutrients have reduced absorption due to the short pathway.

2. Gastric Banding: A silicone band (gastric band) is placed around the upper stomach near the gastroesophageal junction, restricting food passage and stimulating satiety reflex zones. Modern bands are adjustable, allowing customization for each patient. The contemporary band design was proposed by American surgeon Lyubomir Kuzmak, originally from Ukraine.

3. Sleeve Gastrectomy: This involves removing a portion of the stomach and reshaping it into a narrow tubular "sleeve," reducing stomach volume by approximately tenfold (to 150–200

[1] Torres J.C., Oca C.F., Garrison R.N. Gastric bypass: Roux-en-Y gastrojejunostomy from the lesser curvature //South Med.J. - 1983. -Vol. 76. - P.1217- 1221; Бугрова С.А. Ожирение (этиология, патогенез, классификация) //Ожирение. Метаболический синдром. Сахарный диабет II типа.— 2000.— С. 5—13; Яшков ЮМ. Современный этап развития хирургии ожирения // Врач. -2000. -№ 6. - С. 25-27.

AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES
ISSN NUMBER: 2692 - 5206 Volume 6. No 03. March ,2026

ml). The weight-loss mechanisms include: restriction due to narrow sleeve passage, increased activity of vagal receptors due to acid exposure, and removal of ghrelin-producing zones (ghrelin is the hunger hormone). Sleeve gastrectomy has been used as an independent bariatric procedure since 2004.

Many less frequently used procedures have also been proposed beyond these three standard operations. Today, all bariatric surgeries are performed laparoscopically under miniature optical system guidance, meaning small incisions are used rather than large open cuts.

It is important to note that cosmetic surgeries, such as liposuction or abdominoplasty, are not treatments for obesity—they only correct local cosmetic defects. While fat and body weight may reduce temporarily after such procedures, studies show these surgeries do not improve overall health. Visceral fat and fat surrounding internal organs, rather than subcutaneous fat, are the primary contributors to metabolic risk. Attempts at large-scale liposuction for weight loss (up to 10 kg removed) have proven extremely risky, often causing serious complications and cosmetic deformities. Subcutaneous liposuction may even lead to compensatory visceral fat growth. Thus, bariatric surgery—not cosmetic surgery—is indicated for obesity treatment.

Surgical intervention is indicated for patients with:

- BMI ≥ 40 kg/m²
- BMI ≥ 35 kg/m² with comorbidities such as type 2 diabetes, hypertension, venous insufficiency, or joint disorders

Recent studies have explored gastric banding effectiveness in patients with BMI ≥ 30 kg/m². In 2011, the FDA approved gastric banding (LapBand) for patients starting at BMI 30 kg/m².

Preoperative preparation is critical, especially in patients with comorbidities. Patients undergo extensive preoperative outpatient assessment and training to stabilize vital functions, optimize organ systems, and improve mobility. Preoperative training must include:

- Covering all organ and system functions
- Adherence to personal hygiene
- Correction of existing diseases
- Increasing patient activity levels

Principles of Weight-Loss Therapy

Maximum weight reduction is achieved through a combination of:

- Low-calorie diet
- Controlled physical activity
- Lifestyle modification
- Physiotherapy and acupuncture
- Drug therapy (anorectic agents, lipolysis stimulants)
- Surgical intervention
- Pathogenetic and symptomatic therapy for comorbidities

If the etiological cause of obesity is reliably identified, targeted etiopathogenetic therapy is indicated. Conservative methods for MS are effective in only 5–10% of patients, and more than 95% regain weight over a few years due to persistent behavioral and psychological factors.

Therefore, most clinical centers treating obesity employ a multidisciplinary team including surgeons, therapists, and psychiatrists. Patients with severe mental disorders (schizophrenia, bipolar disorder, substance abuse, personality disorders) are generally excluded from surgical treatment. Postoperative psychiatric support helps patients adapt their eating behavior to the new conditions.

The first reported surgical intervention for obesity was performed in 1899 by H. Kelly, who removed subcutaneous fat from the abdominal wall. However, this technique was not widely

AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES
ISSN NUMBER: 2692 - 5206 Volume 6. No 03. March ,2026

used until the mid-20th century. In the USSR, the first operation for MS was performed in 1968 by A.A. Shalimov, achieving long-term weight loss of 30–40 kg. Subsequent operations by F.K. Kutushev, Yu.T. Komorovsky, L.V. Lebedev, and Yu.I. Sedletskiy also reported good outcomes[2].

Effectiveness is measured by:

- Reduction in body weight
- Improvement in obesity-related comorbidities
- Improvement in quality of life
- Recommendation for surgery after failure of conservative measures

Surgical techniques include gastro-restrictive operations (gastric banding, gastroplasty), combined bariatric interventions (gastric bypass), and dermatolipectomy.

Surgical treatment is not recommended in:

- Active peptic ulcer of the stomach or duodenum
- Pregnancy
- Oncological diseases
- Severe psychiatric disorders (depression, chronic psychosis, substance abuse, certain personality disorders)
- Life-threatening or irreversible diseases
- Significant organ dysfunction

Preoperative Dietary Principles

- Divide daily caloric intake into 3 main meals and 2 snacks
- Allocate 30–45 minutes per meal
- Separate fluid intake from meals by 30 minutes
- Drink fluids in small sips, total daily intake 1,400–1,800 ml
- Limit fat per portion to ≤5 g
- Avoid high-sugar foods

Conclusion: Surgical treatment of obesity allows effective weight reduction and, as a result, improves the clinical course of comorbid conditions in patients with morbid obesity.

References

1. Torres J.C., Oca C.F., Garrison R.N. Gastric bypass: Roux-en-Y gastrojejunostomy from the lesser curvature //South Med.J. - 1983. -Vol. 76.
2. Бугрова С.А. Ожирение (этиология, патогенез, классификация) //Ожирение. Метаболический синдром. Сахарный диабет II типа.— 2000.— С. 5—13; Яшков ЮМ. Современный этап развития хирургии ожирения // Врач. -2000. -№ 6.
3. Кутушев Ф.Х., Какабадзе Д.Д. О хирургическом лечении больных патологическим ожирением // Вести, хирургии им. И.И. Грекова. -- №11.-С.3-5
4. Маркова Е.А., Коморовский Ю.Т., Данилишина В.С. Лечение ожирения. - К.:3доров'я, 1986. - 101с.; Седлецкий Ю.И. Хирургические методы коррекции гиперлипидемий // Вести, хирургии им. И.И. Грекова. - 1993. -Т.3-4. - С. 143146.

[2] Кутушев Ф.Х., Какабадзе Д.Д. О хирургическом лечении больных патологическим ожирением // Вести, хирургии им. И.И. Грекова. -1983, №11.-С.3-5; Маркова Е.А., Коморовский Ю.Т., Данилишина В.С. Лечение ожирения. -К.:3доров'я, 1986. - 101с.; Седлецкий Ю.И. Хирургические методы коррекции гиперлипидемий // Вести, хирургии им. И.И. Грекова. - 1993. -Т.3-4. - С. 143146.

AMERICAN ACADEMIC PUBLISHER

INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

ISSN NUMBER: 2692 - 5206 Volume 6. No 03. March ,2026

5. Urinboyev, J., O'tkirov, M., Kurbanov, G., Toshnazarova, N., Baratov, N., & Utegenov, Y. (2025). ВЕДЕНИЕ ПАЦИЕНТОВ ПОСЛЕ БАРИАТРИЧЕСКИХ ОПЕРАЦИЙ. Modern education and development, 37(3), 58-65.
6. Utegenov, Y., Urinboyev, J., O'tkirov, M., Kurbanov, G., Toshnazarova, N., & Baratov, N. (2025). MEXANIK (OBSTRUKTIV) SARIQLIK: TUSHUNCHASI, TASNIFI, ETIOLOGIYASI, PATOGENEZI, KLINIKASI VA DIFFERENTSIAL DIAGNOSTIKA. Modern education and development, 37(3), 75-82.
7. Toshnazarova, N., Baratov, N., Utegenov, Y., Urinboyev, J., & Utkirov, M. (2025, October). EARLY DETECTION OF ACUTE PANCREATITIS AND OPTIMIZATION OF ITS MANAGEMENT: CURRENT EVIDENCE AND PRACTICAL RECOMMENDATIONS. In International Conference on Medicine & Agriculture (Vol. 1, No. 1, pp. 84-89).
8. Kurbanov, G., Urinboyev, J., O'tkirov, M., Toshnazarova, N., Baratov, N., & Utegenov, Y. (2025). DIAGNOSIS, TREATMENT AND PREVENTION OF CROHN'S DISEASE, PEUTZ–JEGHERS SYNDROME AND ULCERATIVE COLITIS: A COMPREHENSIVE CLINICAL REVIEW. Modern education and development, 37(3), 66-74.
9. Баратов, Н., Утегенов, Ю., Курбанов, Г., Ўткиров, М., Ўринбоев, Ж., & Тошназарова, Н. (2025, October). СОВРЕМЕННЫЕ ТЕНДЕНЦИИ ЛЕЧЕНИЯ ОСЛОЖНЕНИЙ У ПАЦИЕНТОВ С ЯЗВЕННОЙ БОЛЕЗНЬЮ ЖЕЛУДКА И ДВЕНАДЦАТИПЕРСТНОЙ КИШКИ. In International Conference on Medicine & Agriculture (Vol. 1, No. 1, pp. 25-29).
10. Baratov, N., Urinboyev, J., O'tkirov, M., Kurbanov, G., Toshnazarova, N., & Utegenov, Y. (2025). LIVER DISEASES: BACTERIAL AND AMOEBIC ABSCESSES AND JAUNDICE IN LIVER CIRRHOSIS. Modern education and development, 37(3), 83-91.