

THE EFFECTS OF NANDROLONE ACID ON THE BODY AND ITS IMPORTANCE TODAY

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Abstract. *Nandrolone is an anabolic-androgenic steroid (AAS) that was first synthesized in the 1950s and has since become one of the most widely studied and used synthetic derivatives of testosterone. It is primarily used in clinical medicine to treat various forms of anemia, osteoporosis, and muscle-wasting diseases. However, due to its muscle-building properties, nandrolone has also gained popularity—and controversy—in the world of sports and bodybuilding. The compound remains a topic of scientific, medical, and ethical discussion in the present day.*

Keywords: *Nandrolone, anabolic-androgenic steroid, protein synthesis, neuroprotective and anti-inflammatory.*

Chemical and Pharmacological Properties

Nandrolone, chemically known as 19-nortestosterone, is similar to testosterone but lacks a carbon atom at the 19th position. This structural modification reduces its androgenic activity while enhancing its anabolic effects.

Anabolic effects: Promote protein synthesis, nitrogen retention, and muscle growth.

Androgenic effects: Include development of male secondary sexual characteristics, but these are weaker compared to testosterone.

It is commonly administered in the form of nandrolone decanoate or nandrolone phenylpropionate, both of which are long-acting intramuscular injections.

Mechanism of Action

Nandrolone binds to androgen receptors in various tissues such as muscles, bones, and the nervous system. Once bound, it modulates gene expression, leading to increased protein synthesis and muscle mass. Additionally, it promotes bone density by enhancing calcium balance and collagen synthesis.

Effects on the Human Body

Positive (Therapeutic) Effects

Treatment of anemia: Stimulates erythropoiesis (red blood cell production).

Osteoporosis management: Increases bone mineral density.

Muscle wasting conditions: Useful in HIV/AIDS, cancer, or after severe trauma.

Improved recovery: Assists in recovery after surgery or long-term illness.

Adverse Effects

Like other anabolic steroids, nandrolone carries risks, especially when misused:

Hormonal imbalance: Suppresses natural testosterone production, leading to testicular atrophy and infertility in men.

Gynecomastia: Due to estrogenic activity via aromatization.

Liver toxicity: Though less hepatotoxic than oral steroids, long-term use still poses risks.

Cardiovascular effects: Increases LDL ("bad") cholesterol and lowers HDL ("good") cholesterol, potentially leading to heart disease.

Psychiatric symptoms: Aggression, mood swings, and even depression upon withdrawal.

Virilization in women: Deepened voice, hirsutism, and menstrual irregularities.

Current Significance

1. Medical Use

Nandrolone remains a valuable drug in the treatment of:

Chronic kidney disease–related anemia

Osteoporosis (especially in postmenopausal women)

Muscle-wasting syndromes

However, its use is strictly controlled and usually limited to short durations under close medical supervision.

2. Use in Sports and Doping

Due to its muscle-building and recovery-enhancing properties, nandrolone is banned by the World Anti-Doping Agency (WADA) in all forms of competitive sports. Despite this, it has been frequently detected in anti-doping tests.

Notable consequences include:

Athlete suspensions

Reputational damage

Legal penalties in some jurisdictions

There are also claims of accidental ingestion via contaminated supplements, though these remain difficult to verify.

3. Research and Future Prospects

Ongoing research is exploring safer analogs of nandrolone with reduced side effects, as well as its potential neuroprotective and anti-inflammatory roles in chronic illnesses such as multiple sclerosis and certain muscular dystrophies.

Conclusion

Nandrolone is a potent anabolic steroid with significant therapeutic potential and well-documented effects on muscle and bone tissue. While it holds a legitimate place in medical practice, its abuse—especially in sports—has led to ethical concerns and serious health risks. As scientific understanding evolves, the challenge lies in balancing the clinical benefits of nandrolone with the responsibility to prevent misuse. Strict regulation, informed usage, and further research are essential to ensure that its application remains safe and ethical.

REFERENCES

1. Irgashev, I. E., & Farmonov, X. A. (2021). Specificity of resuscitation and rehabilitation procedures in patients with covid-19. *Central Asian Journal of Medical and Natural Science*, 2(1), 11-14.
2. Irgashev, I. E. (2022). New Principles of Anticoagulant Therapy in Patients with Covid-19. *Research Journal of Trauma and Disability Studies*, 1(12), 15-19.
3. Irgashev, I. E. (2023). Pathological Physiology of Heart Failure. *American Journal of Pediatric Medicine and Health Sciences* (2993-2149), 1(8), 378-383.
4. Irgashev, I. (2024). COVID-19 INFEKSIYSINI YUQTIRGAN KASALXONADAN TASHQARI PNEVMONIYA BILAN KASALLANGAN BEMORLARDA DROPERIDOL NEYROLEPTIK VOSITASINI QO'LLANILISHI VA UNING DAVO SAMARADORLIGIGA TA'SIRI. *Центральноазиатский журнал образования и инноваций*, 3(1), 12-18.

5. Irgashev, I. E. (2022). COVID-19 BILAN KASALLANGAN BEMORLARDA ANTIKAOGULYANT TERAPIYANING YANGICHA TAMOILLARI. *BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI*, 2(12), 462-466.
6. Ergashevich, I. I. (2024). GIPERTONIK KRIZ BILAN KECHAYOTGAN GIPERTONIYA KASALLIGIDA, ASORATLAR YUZ BERISHINI OLDINI OLIHGA QARATILGAN SHOSHILINCH TERAPIYA. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 40(1), 55-61.
7. Ergashevich, I. I. (2024). SPECIFIC PROPERTIES OF LEVAMICOL OINTMENT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 40(1), 48-53.
8. Irgashev, I. E. (2023). RESPIRATORY DISTRESS SYNDROME. *Horizon: Journal of Humanity and Artificial Intelligence*, 2 (5), 587–589.
9. Ergashevich, I. I. (2024). OTKIR KORONAR SINDROM KUZATILAYOTGAN BEMORLARDA ILK YORDAM KO'RSATISHNING USTUVOR TAMOILLARI HAMDA UNING AHAMIYATI. *TADQIQOTLAR. UZ*, 34(2), 152-159.
10. Ergashevich, I. I. (2024). GIPERTONIYA KASALLIGIDA SHOSHILINCH YORDAM KO'RSATISH. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, 3(3), 148-153.
11. Иргашев, И. Э. (2024). ПРИНЦИПЫ ПРИОРИТЕТА И ЕГО ЗНАЧЕНИЕ ОКАЗАНИЯ ПЕРВОЙ ПОМОЩИ У БОЛЬНЫХ ОСТРЫМ КОРОНАРНЫМ СИНДРОМОМ. *TADQIQOTLAR. UZ*, 34(2), 177-184.
12. Иргашев, И. Э. (2024). ДЕЙСТВИЕ ДРОПЕРИДОЛА У БОЛЬНЫХ ВНЕГОСПИТАЛЬНОЙ ПНЕВМОНИЕЙ, ИНФИЦИРОВАННЫХ КОРОНОВИРУСОМ. *TADQIQOTLAR. UZ*, 34(2), 160-168.
13. Иргашев, И. Э. (2024). ПРИНЦИПЫ ОКАЗАНИЯ ПЕРВОЙ ПОМОЩИ БОЛЬНЫМ ГИПЕРТЕНИЧЕСКИМ КРИЗОМ. *TADQIQOTLAR. UZ*, 34(2), 185-192.
14. Иргашев, И. Э. (2024). СКОРАЯ ПОМОЩЬ ПРИ ГИПЕРТЕНИЧЕСКОЙ БОЛЕЗНИ. *TADQIQOTLAR. UZ*, 34(2), 169-176
15. Усмонов, У. Р., & Иргашев, И. Э. (2020). Changes in the morphofunctional properties of thymus and spleen under the influence of mites of different origins. *Новый день в медицине*, (2), 242-244..
16. Ergashevich, I. I., Bahronovich, B. F., & Qilichevna, A. M. (2024). ASTMATIK STATUSDAN BEMORLARNI SHIQARISHNING ZAMONAVIY TAMOYILLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 43(8), 36-44.
17. Ergashevich, I. I. (2024). BRONXIAL ASTMA KASALLIGINI DAVOLASHGA ZAMONAVIY YONDASHUV. *SCIENTIFIC JOURNAL OF APPLIED AND MEDICAL SCIENCES*, 3(4), 266-272.
18. Иргашев, И. Э., & Ахмедова, М. К. (2024). СОВРЕМЕННЫЕ ПРИНЦИПЫ ВЫВОДА ПАЦИЕНТОВ В АСТМАТИЧЕСКОМ СТАТУСЕ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 43(8), 28-35.
19. Saodat, A., Vohid, A., Ravshan, N., & Shamshod, A. (2020). MRI study in patients with idiopathic coxarthrosis of the hip joint. *International Journal of Psychosocial Rehabilitation*, 24(2), 410-415.
20. Axmedov, S. J. (2023). EFFECTS OF THE DRUG MILDRONATE. *Innovative Development in Educational Activities*, 2(20), 40-59.

21. Jamshidovich, A. S. (2023). ASCORBIC ACID: ITS ROLE IN IMMUNE SYSTEM, CHRONIC INFLAMMATION DISEASES AND ON THE ANTIOXIDANT EFFECTS. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(11), 57-60.
22. Jamshidovich, A. S. (2023). THE ROLE OF THIOTRIAZOLINE IN THE ORGANISM. *Ta'lim innovatsiyasi va integratsiyasi*, 9(5), 152-155.
23. Jamshidovich, A. S. (2023). HEPTRAL IS USED IN LIVER DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 35(3), 76-78.
24. Jamshidovich, A. S. (2023). EFFECT OF TIVORTIN ON CARDIOMYOCYTE CELLS AND ITS ROLE IN MYOCARDIAL INFARCTION. *Gospodarka i Innowacje.*, 42, 255-257.
25. Jamshidovich, A. S. (2024). NEUROPROTECTIVE EFFECT OF CITICOLINE. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(1), 1-4.
26. Jamshidovich, A. S. (2024). THE ROLE OF TRIMETAZIDINE IN ISCHEMIC CARDIOMYOPATHY. *Journal of new century innovations*, 44(2), 3-8.
27. Jamshidovich, A. S. (2024). ВСЕ ЭФФЕКТЫ ПРЕПАРАТА ИМУДОН. *TADQIQOTLAR*, 31(2), 39-43.
28. Jamshidovich, A. S. (2024). SPECIFIC FEATURES OF THE EFFECT OF THE HEPARIN DRUG. *TADQIQOTLAR*, 31(2), 34-38.
29. Jamshidovich, A. S. (2024). USE OF GLUCOCORTICOSTEROIDS IN PEDIATRIC PRACTICE. *TADQIQOTLAR*, 31(2), 29-33.
30. Jamshidovich, A. S. (2024). РОЛЬ ИНТЕЛЛАНОВОГО СИРОПА И ЦИАНОКОБАЛАМИНА В УЛУЧШЕНИИ ПАМЯТИ. *TADQIQOTLAR*, 31(2), 44-48.
31. Jamshidovich, A. S. (2024). TREATMENT OF POLYNEUROPATHY WITH BERLITHION. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 201-209.
32. Jamshidovich, A. S. (2024). USE OF ASCORIL IN BRONCHIAL ASTHMA. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 191-200.
33. Jamshidovich, A. S. (2024). THE IMPORTANCE OF THE DRUG ARTOXAN. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 182-190.
34. Jamshidovich, A. S. (2024). THE ROLE OF RENGALIN IN CHRONIC BRONCHITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 116-123.
35. Jamshidovich, A. S. (2024). THE ROLE OF ALMAGEL DRUG IN GASTRIC AND DUODENAL WOUND DISEASE. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 173-181.
36. Jamshidovich, A. S. (2024). THE ROLE OF CODELAK BRONCHO SYRUP IN CHILDREN'S PRACTICE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 109-115.
37. Jamshidovich, A. S. (2024). THE AEVIT DRUG EFFECT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 124-132.
38. Jamshidovich, A. S. (2024). THE IMPORTANCE OF ALCHEVA DRUG IN POST-STROKE APHASIA. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 132-138.

39. Jamshidovich, A. S. (2024). THE ROLE OF HYALURON CHONDRO DRUG IN OSTEOARTHRISIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 139-145.
40. Jamshidovich, A. S. (2024). EFFECT OF SIMETHICONE DROP IN FLATULENCE. *Лучшие интеллектуальные исследования*, 14(1), 95-101.
41. Jamshidovich, A. S. (2024). BENEFITS OF BETADINE SOLUTION. *Лучшие интеллектуальные исследования*, 14(1), 116-122.
42. Jamshidovich, A. S. (2024). EFFECT INHALED GLUCOCORTICOIDS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND BRONCHIAL ASTHMA. *TADQIQOTLAR*, 31(1), 171-180.
43. Jamshidovich, A. S. (2024). USE OF VIGANTOL IN RICKETS. *Лучшие интеллектуальные исследования*, 14(1), 102-108.
44. Jamshidovich, A. S. (2024). THE VITAPROST DRUG RESULTS. *Лучшие интеллектуальные исследования*, 14(1), 109-115.
45. Jamshidovich, A. S. (2024). THE ROLE OF BISEPTOL DRUG IN URINARY TRACT DISEASE. *Лучшие интеллектуальные исследования*, 14(1), 89-94.
46. Jamshidovich, A. S. (2024). PROPERTIES OF THE DRUG DORMIKIND. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 88-92.
47. Jamshidovich, A. S., & Komilovich, E. B. (2024). IMMUNOMODULATORY FUNCTION OF DIBAZOL DRUG. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 83-87.
48. Jamshidovich, A. S., & Komilovich, E. B. (2024). ADVANTAGES OF THE DRUG NEPTRAL. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 98-101.
49. Эргашов, Б. К., & Ахмедов, Ш. Ж. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЭТИОЛОГИЯ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 59-69.
50. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION, CLASSIFICATION AND PATHOGENESIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 50-58.
51. Komilovich, E. B., & Jamshidovich, A. S. (2024). YURAK ISHEMIYASI. STENOKARDIYADA SHOSHILINCH TIBBIY YORDAM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 12-20.
52. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION ETIOLOGY. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 32-41.
53. Komilovich, E. B., & Jamshidovich, A. S. (2024). CARDIAC ISCHEMIA. ANGINA NURSING DIAGNOSIS AND CARE. *Journal of new century innovations*, 46(1), 44-52.
54. Jamshidovich, A. S. (2024). IMPORTANT INDICATIONS OF THE DRUG WOBENZYM. *Journal of new century innovations*, 46(1), 29-32.
55. Jamshidovich, A. S. (2024). THE RESULTS OF THE EFFECT OF THE DRUG VALIDOL. *Journal of new century innovations*, 46(1), 19-23.
56. Jamshidovich, A. S. (2024). VIFERON USE IN CHILDREN. *Journal of new century innovations*, 46(1), 24-28.

57. Jamshidovich, A. S. (2024). USE OF DUSPATALIN (MEBEVERINE HYDROCHLORIDE) IN GASTROINTESTINAL DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 93-97.
58. Jamshidovich, A. S. (2024). ЭФФЕКТЫ СИРОПА ДЕПАКИНА (ВАЛЬПРОЕВАЯ КИСЛОТА). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 148-152.
59. Jamshidovich, A. S., & Komilovich, E. B. (2024). THE IMPORTANCE OF THE DRUG ALLOCHOL FOR CHRONIC CHOLECYSTITIS. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 133-137.
60. Jamshidovich, A. S., & Komilovich, E. B. (2024). ВАЖНЫЕ СВОЙСТВА ПРЕПАРАТА ДЕ-НОЛ (субцитрат висмута). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 143-147.
61. Jamshidovich, A. S., & Komilovich, E. B. (2024). SPECIAL FEATURES OF BUDECTON DRUG. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 138-142.
62. Jamshidovich, A. S. (2024). ЭФФЕКТИВНОЕ ВОЗДЕЙСТВИЕ ПРЕПАРАТА КЕЙВЕР. *Ta'lim innovatsiyasi va integratsiyasi*, 15(3), 137-143.
63. Jamshidovich, A. S. (2024). USEFUL PROPERTIES OF THE DRUG YODOFOL. *Ta'lim innovatsiyasi va integratsiyasi*, 15(3), 144-149.
64. Jamshidovich, A. S. (2024). FITOTERAPIYANING AKUSHER-GINEKOLOGIYADA ANAMIYATI. *Лучшие интеллектуальные исследования*, 15(2), 121-125.
65. Jamshidovich, A. S. (2024). THE IMPORTANCE OF THE DRUG DOPROKIN. *Лучшие интеллектуальные исследования*, 15(2), 109-114.
66. Jamshidovich, A. S. (2024). THE EFFECT OF DOSTINEX ON THE BODY. *Лучшие интеллектуальные исследования*, 15(2), 115-120.
67. Jamshidovich, A. S. (2024). РЕЗУЛЬТАТЫ ЭФФЕКТИВНОГО ДЕЙСТВИЯ ПРЕПАРАТА КАНЕФРОН. *Лучшие интеллектуальные исследования*, 15(2), 138-143.
68. Jamshidovich, A. S. (2024). СОВРЕМЕННЫЕ ЭФФЕКТЫ ПРЕПАРАТА ИНДОЛ. *Лучшие интеллектуальные исследования*, 15(2), 126-131.
69. Jamshidovich, A. S. (2024). EFFECT OF ISMIZHEN DRUG ON BODY IMMUNITY. *Лучшие интеллектуальные исследования*, 15(2), 132-137.
70. Jamshidovich, A. S. (2024). POSITIVE EFFECTS OF THE DRUG CARCIL. *Ta'lim innovatsiyasi va integratsiyasi*, 15(3), 127-131.
71. Jamshidovich, A. S. (2024). РЕЗУЛЬТАТЫ ЭФФЕКТИВНОГО ДЕЙСТВИЯ КАВИНТОНА. *Ta'lim innovatsiyasi va integratsiyasi*, 15(3), 132-136.
72. Jamshidovich, A. S. (2024). Современный Эффект Спрея Мометазон. *Research Journal of Trauma and Disability Studies*, 3(3), 62-65.
73. Jamshidovich, A. S. (2024). THE ROLE OF" SIMONTE PLUS" DRUG IN THE MODERN TREATMENT OF BRONCHIAL ASTHMA. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(5), 66-70.
74. Jamshidovich, A. S. (2024). FEATURES OF THE BIOMECHANISM OF THE DRUG LEVOMYCETIN (CHLORAMPHENICOL). *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(9), 298-301.
75. Jamshidovich, A. S. (2024). THE MOST IMPORTANT INDICATORS OF OMEGA 3 SUBSTANCE IN THE METABOLISM OF THE HUMAN BODY. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(10), 113-117.

76. Komilovich, E. B., & Khalimovich, M. N. (2024). CARDIAC ISCHEMIA. ANGINA CLINICAL FORMS AND DIAGNOSIS. *Journal of new century innovations*, 46(1), 70-78.
77. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA EMERGENCY CARE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 235-242.
78. Komilovich, E. B. (2024). YURAK ISHEMIK KASALLIGI. STENOKARDIYANI DAVOLASHNING ZAMONAVIY TAMOYILLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 3-11.
79. Jamshidovich, A. S. (2024). THE MOST IMPORTANT BENEFITS OF GINGER FOR THE HUMAN BODY'S IMMUNITY. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(11), 269-273.
80. Axmedov, S. (2024). THE SPECIFIC EFFECT OF THE DRUG "BAKLASAN" IN CEREBROVASCULAR DISEASES AND ITS PRACTICAL SIGNIFICANCE TODAY. *Modern Science and Research*, 3(12), 485-492.
81. Komilovich, E. B. Z. (2023). Coronary Artery Disease. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(12), 81-87.
82. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA TREATMENT. *Journal of new century innovations*, 46(1), 95-104.
83. Komilovich, E. B. (2024). HYPERTENSION TREATMENT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 227-234.
84. Эргашов, Б. К. (2024). ИШЕМИЧЕСКАЯ БОЛЕЗНЬ СЕРДЦА. СТЕНОКАРДИЯ ПРОФИЛАКТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 21-31.
85. Axmedov, S. (2025). ВАЖНЫЕ СВОЙСТВА ПРЕПАРАТА ЭСКУЗАН ПРИ СОСУДИСТЫХ ЗАБОЛЕВАНИЯХ. *Modern Science and Research*, 4(1), 380-387.
86. Эргашов, Б. К. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ДИАГНОСТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 70-78.
87. Komilovich, E. B. (2024). HYPERTENSION DIAGNOSTICS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 42-49.
88. Axmedov, S. (2025). SPECIFIC PROPERTIES OF ROXERA DRUG IN CARDIOVASCULAR DISEASES. *Modern Science and Research*, 4(2), 472-479.
89. Axmedov, S. (2025). THE DRUG PHYSIOTENS, THE FEATURES OF THE DRUG AND ITS USE IN THE FIELD OF CARDIOLOGY, IN PATIENTS WITH HEAVY BODY WEIGHT. *Modern Science and Research*, 4(3), 350-358.
90. Axmedov, S. (2025). THE USE OF MIRENA IN GYNECOLOGIC DISEASES AND ITS SIGNIFICANCE. *Modern Science and Research*, 4(4), 304-312.