

MANAGEMENT OF TENSION-TYPE HEADACHES

Akhmadov Jakhongir Akmal ugli

Asian International University, Bukhara, Uzbekistan.

<https://doi.org/10.5281/zenodo.15515709>

Abstract. *Tension-type headache (TTH) is the most prevalent form of primary headache, often described as a bilateral, mild to moderate pain resembling a tight band around the head. Despite its frequency, the underlying mechanisms remain inadequately understood. Management typically involves a combination of lifestyle modifications, non-pharmacological methods, and appropriate medication use. This article provides a detailed overview of current strategies for both episodic and chronic TTH, focusing on prevention, treatment, and the integration of pharmacologic and non-pharmacologic therapies.*

Introduction

Tension-type headache (TTH) represents the most frequently diagnosed category of primary headache. It is also known as a stress-related, psychogenic, or muscle contraction headache. Patients often describe muscle sensitivity, which tends to increase with headache frequency and intensity. TTH can be episodic—either frequent or infrequent—or chronic, based on how often the headaches occur.

TTH is typically diagnosed by using criteria established by the International Headache Society (IHS). Episodes can range from 30 minutes to several days and are generally characterized by non-pulsating, bilateral pain that feels like pressing or tightening. These headaches are not aggravated by regular physical activity and often do not include nausea or vomiting, distinguishing them from migraines.

Treatment and Management

1. Episodic Tension-Type Headache (ETTH)

For managing ETTH, acute interventions are usually sufficient. Over-the-counter analgesics like ibuprofen (400 mg) and acetaminophen (1,000 mg) are among the most effective first-line treatments. Combined use of these drugs has shown better outcomes than using either alone. In contrast, aspirin (500 mg) has not demonstrated significant superiority over placebo in some studies.

Patients at risk of gastrointestinal issues or renal complications may be better managed with acetaminophen rather than NSAIDs. Other NSAIDs such as naproxen sodium, ketoprofen, and diclofenac have also been found effective, but overuse can lead to medication-overuse headaches. Muscle relaxants are generally not recommended due to limited effectiveness and risk of dependence.

Topical treatments, including peppermint oil (10% in ethanol), have been shown to relieve pain in both children and adults, with results comparable to acetaminophen. This non-drug approach is endorsed by several clinical guidelines for treating acute episodes of TTH.

2. Chronic Tension-Type Headache (CTTH)

Pharmacological Approaches

Chronic TTH, which often evolves from the episodic form, requires preventive strategies. Amitriptyline, a tricyclic antidepressant (TCA), is the most widely studied and effective drug for prevention. It is typically started at 10–25 mg daily, increasing gradually until the therapeutic effect is achieved. Common side effects include dry mouth, sedation, and urinary retention. A full response usually appears after 3–4 weeks of treatment.

Other antidepressants such as mirtazapine and venlafaxine have shown some benefit, though SSRIs and SNRIs appear less effective than TCAs for TTH. Anticonvulsants such as gabapentin, topiramate, and sodium valproate have weaker evidence supporting their use. Although botulinum toxin has shown some promise in reducing pain severity, it is not considered a first-line therapy and may be reserved for treatment-resistant cases.

Non-Pharmacological Approaches

Non-drug interventions play a key role in managing chronic TTH. Effective methods include cognitive behavioral therapy, acupuncture, biofeedback, physical therapy, and manual joint mobilization. These therapies aim to reduce stress, correct posture, and relieve muscle tension.

Strength-based neck and shoulder exercise programs have demonstrated benefits in pain reduction and improved quality of life. Techniques such as transcutaneous electrical nerve stimulation (TENS) and trigger point therapy have also shown efficacy in short-term symptom relief.

Biofeedback—used alone or in combination with behavioral therapy—has proven useful in lowering headache frequency. Acupuncture, especially when paired with exercise or manual therapy, has shown positive outcomes in both episodic and chronic TTH cases. Furthermore, massage therapy, particularly when combined with spinal manipulation, increases cervical range of motion and reduces headache intensity.

Recent evidence also supports the use of moxibustion, warming acupuncture, and the antidepressant Deanxit for symptom control. Techniques such as autogenic training, cervical kinesiotherapy, and posture correction exercises have demonstrated effectiveness in preventing psychophysical contributors to chronic headaches.

Conclusion

Most individuals with TTH do not seek medical treatment unless the condition becomes chronic or the headaches increase in frequency. The clinical diagnosis relies on symptom exclusion and thorough history-taking, especially when neurological signs are absent. Coexisting conditions such as migraines or medication-overuse headaches must be ruled out.

Chronic TTH can be challenging to manage but is responsive to an integrative treatment approach. Preventive pharmacologic therapy, particularly with amitriptyline, combined with non-pharmacologic interventions, offers the best outcomes. Attention to psychological comorbidities and correction of analgesic overuse are also crucial for long-term success.

REFERENCES

1. Akhmadov, J. (2025). ACETOLAZAMIDE USING IN IDIOPATHIC INTRACRANIAL HYPERTENSION. *Modern Science and Research*, 4(4), 1086-1091.
2. Abdurashitovich, Z. F. (2024). APPLICATION OF MYOCARDIAL CYTOPROTECTORS IN ISCHEMIC HEART DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 39(5), 152-159.
3. Abdurashitovich, Z. F. (2024). ASTRAGAL O'SIMLIGINING TIBBIYOTDAGI MUHIM AHAMIYATLARI VA SOG'LOM TURMUSH TARZIGA TA'SIRI. *Лучшие интеллектуальные исследования*, 14(4), 111-119.
4. Abdurashitovich, Z. F. (2024). MORPHO-FUNCTIONAL ASPECTS OF THE DEEP VEINS OF THE HUMAN BRAIN. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(6), 203-206.

5. Abdurashitovich, Z. F. (2024). THE RELATIONSHIP OF STRESS FACTORS AND THYMUS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(6), 188-196.
6. Abdurashitovich, Z. F. (2024). MIOKARD INFARKTI UCHUN XAVF OMILLARINING AHAMIYATINI ANIQLASH. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(5), 83-89.
7. Rakhmatova, D. B., & Zikrillae, F. A. (2022). DETERMINE THE VALUE OF RISK FACTORS FOR MYOCARDIAL INFARCTION. *FAN, TA'LIM, MADANIYAT VA INNOVATSIYA JURNALI | JOURNAL OF SCIENCE, EDUCATION, CULTURE AND INNOVATION*, 1(4), 23-28.
8. Abdurashitovich, Z. F. (2024). Department of Syndesmology from the Science of Human Anatomy General Information About. *Research Journal of Trauma and Disability Studies*, 3(3), 158-165.
9. Abdurashitovich, Z. F. (2024). THE IMPORTANCE OF THE ASTRAGAL PLANT IN MEDICINE AND ITS EFFECT ON A HEALTHY LIFESTYLE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 41(4), 88-95.
10. Abdurashitovich, Z. F. (2024). ODAM ANATOMIYASI FANIDAN SINDESMOLOGIYA BO'LIMI HAQIDA UMUMIY MALUMOTLAR. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 41(4), 37-45.
11. Abdurashitovich, Z. F. (2024). ANATOMICAL COMPLEXITIES OF JOINT BONES OF THE HAND. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(4), 198-206.
12. Ergasheva, G. (2025). POLYCYSTIC OVARY SYNDROME: A COMPREHENSIVE OVERVIEW AND CURRENT TREATMENT APPROACHES. *Modern Science and Research*, 4(4), 937-944.
13. Ergasheva, G. (2025). ACROMEGALY: A SEVERE NEUROENDOCRINE DISORDER WITH MULTISYSTEM MANIFESTATIONS. *Modern Science and Research*, 4(3), 1123-1131.
14. Ergasheva, G. (2024). THE ROLE OF CORRECTIONAL PEDAGOGY IN ORGANIZING THE EDUCATION OF CHILDREN WITH DISABILITIES. *Ethiopian International Journal of Multidisciplinary Research*, 11(06), 206-207.
15. Toxirovna, E. G. (2024). QALQONSIMON BEZ KASALLIKLARIDAN HASHIMOTO TIREODIT KASALLIGINING MORFOFUNKSIONAL O'ZIGA XOSLIGI. *Modern education and development*, 16(7), 120-135.
16. Toxirovna, E. G. (2024). REVMATOID ARTRIT: BO'G'IMLAR YALLIG'LANISHINING SABABLARI, KLINIK BELGILARI, OQIBATLARI VA ZAMONAVIY DAVOLASH YONDASHUVLARI. *Modern education and development*, 16(7), 136-148.
17. Эргашева, Г. Т. (2024). ОЦЕНКА КЛИНИЧЕСКОЙ ЭФФЕКТИВНОСТИ ОРЛИСТАТА У БОЛЬНЫХ ОЖИРЕНИЕМ И АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИЕЙ. *Modern education and development*, 16(7), 92-105.
18. Ergasheva, G. T. (2024). THE SPECIFICITY OF AUTOIMMUNE THYROIDITIS IN PREGNANCY. *European Journal of Modern Medicine and Practice*, 4(11), 448-453.

19. Эргашева, Г. Т. (2024). ИССЛЕДОВАНИЕ ФУНКЦИИ ЩИТОВИДНОЙ ЖЕЛЕЗЫ ПРИ ТИРЕОИДИТЕ ХАШИМОТО. *Modern education and development*, 16(7), 106-119.
20. Toxirovna, E. G. (2024). GIPOFIZ ADENOMASINI NAZORAT QILISHDA KONSERVATIV JARROHLIK VA RADIATSIYA TERAPIYASINING UZOQ MUDDATLI SAMARADORLIGI. *Modern education and development*, 16(7), 79-91.
21. ERGASHEVA, G. T. (2024). OBESITY AND OVARIAN INSUFFICIENCY. *Valeology: International Journal of Medical Anthropology and Bioethics*, 2(09), 106-111.
22. Ergasheva, G. T. (2024). Modern Methods in the Diagnosis of Autoimmune Thyroiditis. *American Journal of Bioscience and Clinical Integrity*, 1(10), 43-50.
23. Tokhirovna, E. G. (2024). COEXISTENCE OF CARDIOVASCULAR DISEASES IN PATIENTS WITH TYPE 2 DIABETES. *TADQIQOTLAR. UZ*, 40(3), 55-62.
24. Toxirovna, E. G. (2024). DETERMINATION AND STUDY OF GLYCEMIA IN PATIENTS WITH TYPE 2 DIABETES MELLITUS WITH COMORBID DISEASES. *TADQIQOTLAR. UZ*, 40(3), 71-77.
25. Toxirovna, E. G. (2024). XOMILADORLIKDA QANDLI DIABET KELTIRIB CHIQUARUVCHI XAVF OMILLARINI ERTA ANIQLASH USULLARI. *TADQIQOTLAR. UZ*, 40(3), 63-70.
26. Toxirovna, E. G. (2024). QANDLI DIABET 2-TIP VA KOMORBID KASALLIKLARI BO'LGAN BEMORLARDA GLIKEMIK NAZORAT. *TADQIQOTLAR. UZ*, 40(3), 48-54.
27. Tokhirovna, E. G. (2024). MECHANISM OF ACTION OF METFORMIN (BIGUANIDE) IN TYPE 2 DIABETES. *JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH*, 3(5), 210-216.
28. Tokhirovna, E. G. (2024). THE ROLE OF METFORMIN (GLIFORMIN) IN THE TREATMENT OF PATIENTS WITH TYPE 2 DIABETES MELLITUS. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(4), 171-177.
29. Эргашева, Г. Т. (2024). Эффект Применения Бигуанида При Сахарным Диабетом 2 Типа И Covid-19. *Research Journal of Trauma and Disability Studies*, 3(3), 55-61.
30. Toxirovna, E. G. (2024). QANDLI DIABET 2 TUR VA YURAK QON TOMIR KASALLIKLARINING BEMOLARDA BIRGALIKDA KECISHI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 202-209.
31. Эргашева, Г. Т. (2024). СОСУЩЕСТВОВАНИЕ ДИАБЕТА 2 ТИПА И СЕРДЕЧНО-СОСУДИСТЫХ ЗАБОЛЕВАНИЙ У ПАЦИЕНТОВ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 219-226.
32. Эргашева, Г. Т. (2024). СНИЖЕНИЕ РИСКА ОСЛОЖНЕНИЙ У БОЛЬНЫХ САХАРНЫМ ДИАБЕТОМ 2 ТИПА И СЕРДЕЧНО-СОСУДИСТЫМИ ЗАБОЛЕВАНИЯМИ. *Образование Наука И Инновационные Идеи В Мире*, 38(7), 210-218.
33. Tokhirovna, E. G. (2024). CLINICAL AND MORPHOLOGICAL ASPECTS OF THE COURSE OF ARTERIAL HYPERTENSION. *Лучшие интеллектуальные исследования*, 12(4), 234-243.

34. Tokhirovna, E. G. Studying the Causes of the Relationship between Type 2 Diabetes and Obesity. *Published in International Journal of Trend in Scientific Research and Development (ijtsrd)*, ISSN, 2456-6470.
35. Toxirovna, E. G. (2024). ARTERIAL GIPERTENZIYA KURSINING KLINIK VA MORFOLOGIK JIHATLARI. *Лучшие интеллектуальные исследования*, 12(4), 244-253.
36. Эргашева, Г. Т. (2024). НОВЫЕ АСПЕКТЫ ТЕЧЕНИЕ АРТЕРИАЛЬНОЙ ГИПЕРТОНИИ У ВЗРОСЛОГО НАСЕЛЕНИЕ. *Лучшие интеллектуальные исследования*, 12(4), 224-233.
37. Эргашева, Г. Т. (2024). ФАКТОРЫ РИСКА РАЗВИТИЯ САХАРНОГО ДИАБЕТА 2 ТИПА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(5), 70-74.
38. Эргашева, Г. Т. (2024). ОСЛОЖНЕНИЯ САХАРНОГО ДИАБЕТА 2 ТИПА ХАРАКТЕРНЫ ДЛЯ КОГНИТИВНЫХ НАРУШЕНИЙ. *TADQIQOTLAR. UZ*, 30(3), 112-119.
39. Эргашева, Г. Т. (2023). Исследование Причин Связи Диабета 2 Типа И Ожирения. *Research Journal of Trauma and Disability Studies*, 2(12), 305-311.
40. Tokhirovna, E. G. (2024). Risk factors for developing type 2 diabetes mellitus. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(5), 64-69.
41. Toxirovna, E. G. (2024). QANDLI DIABET 2-TUR VA O'LIMNI KELTIRIB CHIQARUVCHI SABABLAR. *Лучшие интеллектуальные исследования*, 14(4), 86-93.
42. Tokhirovna, E. G. (2023). Study of clinical characteristics of patients with type 2 diabetes mellitus in middle and old age. *Journal of Science in Medicine and Life*, 1(4), 16-19.
43. Toxirovna, E. G. (2024). GIPERPROLAKTINEMIYA KLINIK BELGILARI VA BEPUSHTLIKKA SABAB BO'LUVCHI OMILLAR. *Лучшие интеллектуальные исследования*, 14(4), 168-175.
44. Toxirovna, E. G. (2023). QANDLI DIABET 2-TUR VA SEMIZLIKNING O'ZARO BOG'LIQLIK SABABLARINI O'RGANISH. *Ta'lim innovatsiyasi va integratsiyasi*, 10(3), 168-173.
45. Saidova, L. B., & Ergashev, G. T. (2022). Improvement of rehabilitation and rehabilitation criteria for patients with type 2 diabetes.
46. Эргашева, Г. Т. (2023). Изучение Клинических Особенности Больных Сахарным Диабетом 2 Типа Среднего И Пожилого Возраста. *Central Asian Journal of Medical and Natural Science*, 4(6), 274-276.
47. Toxirovna, E. G. (2023). O'RTA VA KEKSA YOSHLI BEMORLARDA 2-TUR QANDLI DIABET KECHISHINING KLINIKO-MORFOLOGIK XUSUSIYATLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 33(1), 164-166.
48. Ergasheva, G. T. (2022). QANDLI DIABET BILAN KASALLANGANLARDA REABILITATSIYA MEZONLARINI TAKOMILASHTIRISH. *TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI*, 2(12), 335-337.

49. Ergasheva, G. (2024). METHODS TO PREVENT SIDE EFFECTS OF DIABETES MELLITUS IN SICK PATIENTS WITH TYPE 2 DIABETES. *Журнал академических исследований нового Узбекистана*, 1(2), 12-16.
50. ГТ, Э., & Саидова, Л. Б. (2022). СОВЕРШЕНСТВОВАНИЕ РЕАБИЛИТАЦИОННО-ВОССТАНОВИТЕЛЬНЫХ КРИТЕРИЕВ БОЛЬНЫХ С СД-2 ТИПА. *TALIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI*, 2(12), 206-209.
51. Toxirovna, E. G. (2025). YURAK-QON TOMIR TIZIMI KASALLIKLARIDA BEMORLAR PARVARISHINING O'ZIGA XOSLIGI. *Modern education and development*, 20(2), 38-46.
52. Ergasheva, G. (2025). PECULIARITIES WHEN ACCOMPANIED BY HYPOTHYROIDISM AND IODINE DEFICIENCY IN PATIENTS WITH ADRENAL GLAND PATHOLOGY. *Modern Science and Research*, 4(2), 1133-1140.
53. Tokhirovna, E. G. (2024). Relationship of the Functional States of the Thyroid and the Reproductive System in Women under Iodine Deficiency. *Journal of Science in Medicine and Life*, 2(6), 89-94.
54. Хафизова, М. Н., & Халимова, Ю. С. (2024). МОТИВАЦИОННЫЕ МЕТОДЫ ПРИ ОБУЧЕНИИ ЛАТЫНИ И МЕДИЦИНСКОЙ ТЕРМИНОЛОГИИ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 55(2), 165-171.
55. Халимова, Ю. С., & Хафизова, М. Н. (2024). ОСОБЕННОСТИ СОЗРЕВАНИЕ И ФУНКЦИОНИРОВАНИЕ ЯИЧНИКОВ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 55(2), 188-194.
56. Халимова, Ю. С., & Хафизова, М. Н. (2024). КЛИНИЧЕСКИЕ АСПЕКТЫ ЛИЦ ЗЛОУПОТРЕБЛЯЮЩЕЕСЯ ЭНЕРГЕТИЧЕСКИМИ НАПИТКАМИ. *TADQIQOTLAR. UZ*, 40(5), 199-207.
57. Халимова, Ю. С., & Хафизова, М. Н. (2024). кафедра Клинических наук Азиатский международный университет Бухара, Узбекистан. *Modern education and development*, 10(1), 60-75.
58. Халимова, Ю. С., & Хафизова, М. Н. (2024). КЛИНИЧЕСКИЕ ОСОБЕННОСТИ ЗАБОЛЕВАНИЙ ВНУТРЕННИХ ОРГАНОВ У ЛИЦ, СТРАДАЮЩИХ АЛКОГОЛЬНОЙ ЗАВИСИМОСТЬЮ. *TADQIQOTLAR. UZ*, 40(5), 240-250.
59. Халимова, Ю. С., & Хафизова, М. Н. (2024). МОРФО-ФУНКЦИОНАЛЬНЫЕ И КЛИНИЧЕСКИЕ АСПЕКТЫ ФОРМИРОВАНИЯ КОЖНЫХ ПОКРОВОВ. *Modern education and development*, 10(1), 76-90.
60. Khalimova, Y. S. (2024). Features of Sperm Development: Spermatogenesis and Fertilization. *American Journal of Bioscience and Clinical Integrity*, 1(11), 90-98.
61. Salokhiddinovna, K. Y., & Nematilloevna, K. M. (2024). MODERN MORPHOLOGY OF НЕМАТОРОИЕТIC ORGANS. *Modern education and development*, 16(9), 50-60.
62. Khalimova, Y. (2025). MORPHOLOGY OF PATHOLOGICAL FORMS OF PLATELETS. *Modern Science and Research*, 4(2), 749-759.
63. Salokhiddinovna, K. Y., & Nematilloevna, K. M. (2025). MODERN MORPHOLOGY OF НЕМАТОРОИЕТIC ORGANS. *Modern education and development*, 19(2), 498-508.
64. Халимова, Ю. С., & Хафизова, М. Н. (2025). СОВРЕМЕННАЯ МОРФОЛОГИЯ КРОВЕТВОРНЫХ ОРГАНОВ. *Modern education and development*, 19(2), 487-497.

65. Халимова, Ю. С., & Хафизова, М. Н. (2025). ГИСТОЛОГИЧЕСКАЯ СТРУКТУРНАЯ МОРФОЛОГИЯ НЕФРОНОВ. *Modern education and development*, 19(2), 464-475.
66. Saloxiddinovna, X. Y., & Nematilloevna, X. M. (2025). NEFRONLARNING GISTOLOGIK TUZILISH MORFOLOGIYASI. *Modern education and development*, 19(2), 509-520.
67. Saloxiddinovna, X. Y., & Ne'matilloevna, X. M. (2025). QON YARATUVCHI A'ZOLARNING ZAMONAVIY MORFOLOGIYASI. *Modern education and development*, 19(2), 476-486.
68. Xalimova, Y. (2025). MODERN CONCEPTS OF BIOCHEMISTRY OF BLOOD COAGULATION. *Modern Science and Research*, 4(3), 769-777.
69. Xalimova, Y. (2025). JIGAR SIRROZIDAGI GEMATOLOGIK TADQIQOTLAR. *Modern Science and Research*, 4(4), 409-418.
70. Халимова, Ю. (2025). ГЕМАТОЛОГИЧЕСКИЕ ИССЛЕДОВАНИЯ ПРИ ЦИРРОЗЕ ПЕЧЕНИ. *Modern Science and Research*, 4(4), 419-428.
71. Xalimova, Y. (2025). HEMATOLOGICAL STUDIES IN LIVER CIRRHOSIS. *Modern Science and Research*, 4(4), 1066-1074.