## THE CAUSES AND DIFFERENCES IN WISDOM TOOTH EXTRACTION OF YOUNG AND ELDERLY PATIENTS

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Annotation: his article explores the causes and differences in wisdom tooth extraction between young and elderly patients. Wisdom teeth, also known as third molars, often cause dental problems that necessitate removal. The differences in extraction are mainly based on patient age, bone density, healing capacity, and the complexity of the procedure. The study aims to identify the key factors affecting outcomes in both age groups and provide suggestions for optimal management strategies.

**Keywords:** Wisdom tooth extraction, young patients, elderly patients, dental surgery, bone density, postoperative healing.

Wisdom teeth, or third molars, typically emerge between the ages of 17 and 25, though not everyone develops them. These teeth can lead to various complications, including impaction, crowding, infections, and damage to adjacent teeth, often necessitating extraction. While the procedure is common, there are significant differences in how wisdom tooth extraction affects young and elderly patients. Factors such as bone density, periodontal health, and overall healing capacity vary between these groups, influencing the surgical approach, recovery, and complications.

This article seeks to analyze these differences, focusing on the unique challenges and considerations for each age group, and propose strategies to optimize treatment outcomes.

Wisdom tooth extraction can vary significantly between young and elderly patients due to differences in oral health, bone density, and overall health status. Here are the key causes and differences:

Causes for Wisdom Tooth Extraction:

Impacted Teeth: Wisdom teeth may not have enough space to fully emerge, causing impaction. This is a common reason for extraction in both young and elderly patients.

Infections and Gum Disease: Wisdom teeth can cause infections (pericoronitis) and contribute to gum disease, especially when partially erupted.

Tooth Decay: Since wisdom teeth are located at the back of the mouth, they are harder to clean, leading to decay and the need for removal.

Cyst Formation: In some cases, cysts or tumors can form around impacted wisdom teeth, which may require surgical extraction.

Orthodontic Reasons: In younger patients, wisdom teeth are often removed to prevent crowding or misalignment of other teeth.

Differences in Extraction Between Young and Elderly Patients:

Young Patients:

- Bone Flexibility: The bone in younger patients is softer and more flexible, making the extraction process easier and less traumatic.
- Faster Healing: Young patients typically heal faster after surgery due to better blood circulation and stronger immune responses.
- Fewer Complications: There is generally a lower risk of complications such as dry socket or infection.
- Preventive Extraction: Wisdom teeth are often removed in young people as a preventive measure, even before they cause problems.

**Elderly Patients:** 

- Bone Density and Fragility: As people age, bone becomes denser and more brittle, making extractions more difficult and increasing the risk of complications like bone fractures.
- Slower Healing: Healing tends to be slower in older patients, with an increased risk of infection and delayed tissue recovery.
- Existing Dental Conditions: Elderly patients often have other dental problems like gum disease or missing teeth, which can complicate the extraction procedure.
- General Health Concerns: Older adults may have medical conditions such as diabetes, hypertension, or cardiovascular disease, which can complicate both the surgery and the healing process.

In summary, while the basic causes for wisdom tooth extraction are similar across age groups, the procedure tends to be simpler and recovery faster in younger patients compared to elderly ones.

The differences in wisdom tooth extraction between young and elderly patients can be attributed to biological and physiological factors. Younger patients benefit from more elastic bone and faster tissue regeneration, leading to quicker recovery times and fewer complications. Their less developed roots and a higher tolerance for postoperative pain further contribute to the positive outcomes. In contrast, elderly patients face more challenges due to reduced bone flexibility, the presence of chronic conditions, and slower healing capacity. Additionally, anxiety and psychological stress

regarding dental surgery are more prevalent in older patients, further complicating the postoperative period.

Considering these findings, the extraction procedure in elderly patients often requires more meticulous planning, including detailed imaging, a comprehensive review of the patient's medical history, and closer postoperative monitoring.

## **Conclusion**

In conclusion, wisdom tooth extraction presents different challenges for young and elderly patients. Younger individuals generally experience a smoother, faster recovery with fewer complications, while elderly patients are at greater risk for postoperative issues, slower healing, and more complex surgical procedures. To optimize outcomes, dental professionals should tailor their approach based on the patient's age, health condition, and bone density. For elderly patients, preoperative preparation and postoperative care should be more comprehensive, possibly involving multidisciplinary teams to manage systemic health factors that could affect recovery.

Preoperative Planning: Detailed preoperative imaging, especially for elderly patients, should be emphasized to assess bone quality and root development.

Comprehensive Health Assessment: For elderly patients, a thorough review of medical history and potential risk factors should be conducted before extraction.

Postoperative Care: Closer follow-up and more aggressive pain management strategies may be necessary for older patients to prevent complications like dry socket and infections.

Patient Education: Both young and elderly patients should receive clear instructions regarding postoperative care, with particular emphasis on managing expectations for recovery duration and pain.

This detailed comparison highlights the need for a personalized approach to wisdom tooth extraction based on the patient's age and health profile to achieve optimal outcomes.

## References

- 1. Kuboki, Y.; Jin, Q.; Takita, H. Geometry of Carriers Controlling Phenotypic in BMP-Induced Osteogenesis and Chondrogenesis. J. Bone Joint Surg. 2001, 83, S105–S115. [CrossRef]
- 2. Kiba, H.; Kuboyama, N.; Uchida, R.; Ishizaki, T.; Nishiyama, N. Bone Ingrowth into the Parallel Cylindrical Tubes with Different Sizes of Porous Hydroxyapatite Implanted into the Rabbits. J. Hard Tissue Biol. 2012, 21, 307–314. [CrossRef]
- 3. Baldino, L.; Cardea, S.; Maffulli, N.; Reverchon, E. Regeneration techniques for bone-to-tendon and muscle-to-tendon interfaces reconstruction. Br. Med. Bull. 2016, 117, 25–37. [CrossRef]

- 4. Krause, D.S.; Theise, N.D.; Collector, M.I.; Henegariu, O.; Hwang, S.; Gardner, R.; Neutzel, S.; Sharkis, S.J. Multi-Organ, Multi-Lineage Engraftment by a Single Bone Marrow-Derived Stem Cell. Cell 2001, 105, 369–377. [CrossRef]
- 5. Tsujigiwa, H.; Nishizaki, K.; Teshima, T.; Takeda, Y.; Yoshinobu, J.; Takeuchi, A.; Orita, Y.; Sugata, Y.; Nagatsuka, H.; Nagai, N. The Engraftment of Transplanted Bone Marrow-Derived Cells into the Olfactory Epithelium. Brain Res. 2005, 1052, 10–15. [CrossRef] [PubMed]
- 6. Friedenstein, A.J.; Gorskaja, J.F.; Kulagina, N.N. Fibroblast Precursors in Normal and Irradiated Mouse Hematopoietic Organs. Exp. Hematol. 1976, 4, 267–274.
- 7. Jiang, Y.; Jahagirdar, B.N.; Reinhardt, R.L.; Schwartz, R.E.; Keene, C.D.; Ortiz-Gonzalez, X.R.; Reyes, M.; Lenvik, T.; Lund, T.; Blackstad, M.; et al. Pluripotency of Mesenchymal Stem Cells Derived from Adult Marrow. Nature 2002, 418, 41–49. [CrossRef]
- 8. 1.Akhrorov Alisher Shavkatovich, Usmanov Rakhmatillo Fayrullaevich, Akhrorov Feruz Zokirovich. Modern Methods of Treatment of Facial Injuries. Journal of Intellectual Property and Human Rights. 2022/10/31. Ctp. 110-114
- 9. 2. Ахроров А. Ш., Усманов Р. Ф., Бурикулов А. М. ОСОБЕННОСТИ ПРИМЕНЕНИЯ КОСТНОГО БЛОКА, ВЗЯТОГО ИЗ ЗОНЫ СКУЛО-АЛЬВЕОЛЯРНОГО КОНТРФОРСА //Journal of new century innovations. 2024. Т. 47. №. 2. С. 149-157.
- 10. 3. Ахроров А., Пулатова Б., Назарова Ш. УСОВЕРШЕНСТВОВАНИЕ ТАКТИКИ ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ БОЛЬНЫХ С ТРАВМОЙ СРЕДНЕЙ ЗОНЫ ЛИЦА //Медицина и инновации. 2021. Т. 1. №. 4. С. 199-204.
- 11. 4. Ахроров А. Ш., Усманов Р. Ф. ЛЕЧЕНИЯ БОЛЬНЫХ С ТРАВМОЙ СРЕДНЕЙ ЗОНЫ ЛИЦА ПУТЕМ ВИРТУАЛЬНОЕ МОДЕЛИРОВАНИЕ //Образование наука и инновационные идеи в мире. 2023. Т. 13. №. 6. С. 16-23.
- 12. 5. Akhrorov A. S. et al. Modern Approaches to Surgical Treatment of Fractures of the Zyno-Orbital Region //Annals of the Romanian Society for Cell Biology. − 2021. − T. 25. − №. 1. − C. 242-250.
- 13. 6. Ахроров А. Ш., Исаев У. И., Ёкубов Ф. П. СПЕЦИАЛИЗИРОВАННОЙ МЕДИЦИНСКОЙ ПОМОЩИ БОЛЬНЫМ С ЧЕЛЮСТНО-ЛИЦЕВОЙ ТРАВМОЙ СРЕДНЕЙ ЗОНЫ ЛИЦА //Journal of new century innovations. 2023. Т. 21. №. 1. С. 126-129.
- 14. 7. Shavkatovich, Ahrorov Alisher, and Pulatova Barno Juraxanovna. "Optimization Of Surgical Tactics For Treating Patients With Midrace Trauma." The American Journal of Medical Sciences and Pharmaceutical Research 3.02 (2021): 96-100.

- 15. 8. Axpopoв A. III. FEATURES OF THE USE OF A BONE BLOCK TAKEN FROM THE ZONE OF THE ZYGOMATIC-ALVEOLAR BUTTRESS //Web of Medicine: Journal of Medicine, Practice and Nursing. 2024. Т. 2. №. 3. С. 58-64.
- 16. 9. Axrorov Alisher Shavkatovich. New Technique for Gum Plastic Sugery with Single-Stage Implantation. Eurasian Scientific Herald. 2024/3.Tom-1. Ctp. 8-12.
- 17. 10. Ахроров А. Ш. ОДОНТОГЕННЫЕ ИНФЕКЦИИ ГОЛОВЫ И ШЕИ //World scientific research journal. 2024. Т. 25. №. 1. С. 60-70.
- 18. 11. Ахроров А. Ш., Каюмов Ш. Ш. ЛЕЧЕНИЯ БОЛЬНЫХ ПРИ ЦЕРЕБРОФАЦИАЛЬНОЙ ТРАВМЕ И УСОВЕРШЕНСТВОВАНИЕ ХИРУРГИЧЕСКИЙ ТАКТИКИ //Лучшие интеллектуальные исследования. 2024. Т. 16. № 3. С. 85-92.
- 19. 12. Ахроров А. Ш., Усманов Р. Ф. МОДИФИЦИРОВАННЫЙ СИНУС-ЛИФТИНГ БЕЗ ИСПОЛЬЗОВАНИЯ ГРАФТА //Лучшие интеллектуальные исследования. 2024. Т. 15. №. 5. С. 47-52.
- 20. 13. Ахроров А. Ш., Усманов Р. Ф. ЗУБОСОДЕРЖАЩАЯ КИСТА ВЕРХНЕЧЕЛЮСТНОЙ ПАЗУХИ С ЛОКАЛИЗАЦИЕЙ ЗАЧАТКА ЗУБА В ОБЛАСТИ НИЖНЕЙ СТЕНКИ ГЛАЗНИЦЫ. КЛИНИЧЕСКИЙ СЛУЧАЙ //Лучшие интеллектуальные исследования. 2024. Т. 15. №. 5. С. 53-60.
- 21. 14. Ахроров, Алишер Шавкатович, Рахматилло Файзуллаевич Усманов, and Абумуслим Мажидзода Бурикулов. "ОСОБЕННОСТИ ПРИМЕНЕНИЯ КОСТНОГО БЛОКА, ВЗЯТОГО ИЗ ЗОНЫ СКУЛО-АЛЬВЕОЛЯРНОГО КОНТРФОРСА." Journal of new century innovations 47.2 (2024): 149-157.
- 22. 15. Ахроров, Алишер Шавкатович, Рахматилло Файзуллаевич Усманов, and Шахзод Шухратович Каюмов. "СНИЖЕНИЕ РИСКА ТРАВМЫ ТРЕТИЙ ВЕТЬВИ ТРОЙНИЧНОГО НЕРВА ПРИ УДАЛЕНИИ ТРЕТЬЕГО МОЛЯРА НИЖНИЙ ЧЕЛЮСТИ." Journal of new century innovations 47.2 (2024): 144-148.
- 23. 16. Ахроров А. Ш. Современный методы диагностики при флегмонах дна полости рта и реаблитация после хирургического вмещателство //Open Herald: Periodical of Methodical Research. 2023. Т. 1. № 8. С. 63-66.
- 24. 17. Shavkatovich A. A., Davronovich M. D. MODERN DIAGNOSTIC METHODS FOR PHLEGMONS OF THE FLOOR OF THE ORAL CAVITY AND REHABILITATION AFTER SURGICAL INTERVENTION //Frontline Medical Sciences and Pharmaceutical Journal. 2023. T. 3. №. 12. C. 41-47.
- 25. 18. Shavkatovich A. A. Modern Aspects of Treatment of Odontogenic Sinusitis //Genius Repository. 2023. T. 25. C. 23-26.

- 26. 19. Shavkatovich, Ahrorov Alisher, and Maksudov Dilshod Davronovich. "PECULIARITIES OF THE TREATMENT ALGORITHM FOR THE CONGENITAL DEFECT THAT CROSSES THE PALATE." Intent Research Scientific Journal 2.10 (2023): 101-107.
- 27. 20. Ахроров А. Ш. и др. ХРОНИЧЕСКОЕ ВОСПАЛЕНИЕ ДЕСЕН-ГИНГИВИТ //Scientific Impulse. 2023. Т. 1. №. 12. С. 35-38.
- 28. 21. Shavkatovich A. A., Fayzullaevich U. R. OPTIMIZING THE TREATMENT OF TEMPOROMANDIBULAR JOINT ARTHRITIS //ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. 2023. Т. 30. №. 3. С. 11-15.
- 29. 22. Каримова Р. Ф., Тельманова Ж. Ф., Ахроров А. Ш. ОПТИМИЗАЦИЯ ОКАЗАНИЯ КВАЛИФИКАЦИРОВАННОЙ МЕДИЦИНСКОЙ ПОМОЩИ В СЕЛЬСКОЙ МЕСТНОСТИ //Journal of new century innovations. 2023. Т. 23. №. 3. С. 109-111.
- 30. 23. Ахроров А., Олимжонов Т. Хирургическая тактика лечения больных с переломами скуловой кости //Актуальные вопросы хирургической стоматологии и дентальной имплантологии. 2022. Т. 1. №. 1. С. 23-25.
- 31. 24. Ахроров А., Пулатова Б. Лечение пострадавших с травмами скуловой кости и дуги при помощи использования малоинвазивных методов //Общество и инновации. 2021. Т. 2. №. 2. С. 289-295.
- 32. 25. Ахроров А., Пулатова Б. Оптимизация хирургической тактики лечения больных с травмой средней зоны лица //Журнал биомедицины и практики.  $-2021.-T.\ 1.-N$  4.  $-C.\ 21-27.$
- 33. 26. Ахроров А. Ш., Пулатова Б. Ж. ЛУЧЕВАЯ ДИАГНОСТИКА ПРИ ПЕРЕЛОМАХ СКУЛООРБИТАЛЬНОГО КОМПЛЕКСА //Интернаука. 2020. №. 44. С. 35-39.
- 34. 27. Ахроров А. Ш., Усманов Р. Ф. ЛЕЧЕНИЯ БОЛЬНЫХ С ТРАВМОЙ СРЕДНЕЙ ЗОНЫ ЛИЦА ПУТЕМ ВИРТУАЛЬНОЕ МОДЕЛИРОВАНИЕ //Образование наука и инновационные идеи в мире. − 2023. − Т. 13. − №. 6. − С. 16-23.