



Prevalence of Migraine in Transgender Individuals Using Hormone Therapy: Hormonal Influence and Clinical Implications

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Objective

To analyze the prevalence of migraine in transgender individuals undergoing gender-affirming hormone therapy (GAHT), highlighting hormonal influence and clinical implications.

Methods

This review followed PRISMA 2020 guidelines. Searches were conducted in March 2025 in PubMed, Scopus, Embase, and ScienceDirect.

142 Articles Identified

Removed Duplicates and Non-Relevant Titles

32 Abstracts Screened

Excluded (Editorials, Letters, Case Reports, No Hormone/Migraine Data)

18 Full-Text Assessed
(12 Included)

Based on inclusion criteria - original articles (2004–2024), in English, Portuguese, or Spanish, reporting migraine prevalence in transgender people using estrogen or testosterone - and exclusion criteria (editorials, letters, case reports, and studies lacking hormone-specific or migraine data), 18 full-text articles were assessed, of which 12 met all eligibility criteria and were included in the synthesis.

Keywords included “transgender,” “hormone therapy,” and “migraine.” Two independent reviewers screened titles and abstracts in a double-blind process to minimize selection bias. Extracted data included population, hormone type, migraine frequency, and outcomes.

Results

Transgender women on oral estrogen showed 19% migraine prevalence, higher

than cis men (6%) and similar to cis women (18%). Estrogen, especially oral in high doses, was linked to increased risk of migraine with aura. Trans men on testosterone had a 20% prevalence, with reports of symptom reduction. Summary, mental health concerns, such as depression and anxiety, were frequent and worsened functional impact. Transdermal estrogen showed lower risk compared to oral formulations.

Population	Prevalence	Hormonal Influence
Trans women	~18-26%	Oral estrogen → increased risk
Trans men	~18-20%	Testosterone → possible protective effect
Cis women	18%	Estrogen fluctuations → risk factor
Cis men	6%	Low estrogen exposure → lower risk

Table 1: Prevalence of Migraine and Hormonal Influences in Transgender and Cisgender Populations

Conclusion

GAHT influences migraine patterns in transgender people. Oral estrogen increases risk, while testosterone may offer protection. Care should consider hormonal regimens and mental health, emphasizing individualized and affirming approaches.

References

