



## Relationship between the use of oral contraceptivas and migraines in women: limiting factor or not?

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### Introduction

Migraine is a type of chronic headache, characterized by a throbbing pain pattern and unilateral manifestation in association with other symptoms, such as nausea, photophobia and phonophobia. It is commonly more present in women, demonstrating a possible association between female hormones and this type of headache.

### Objective

Describe the relation between migraines and the use of combined oral hormonal contraceptives, analyzing and discussing the risks of this association, especially in women presenting migraines with aura.

### Methods

A search was carried out for the descriptors "migraine" AND "oral contraceptives", in September 2023, in the PubMed and Scopus databases. Observational cohort studies, systematic reviews and newspaper articles were selected. The selection of articles was carried out independently by 1 author. 5 articles were selected in the end, by title and abstract lecture.

### Results

In these studies, the relationship between the prevalence of migraines in women and the fertile period is evident, especially due to menstrual cycle hormones, such as estrogen. The most exposed pathophysiology is associated with the rate of decline in estrogen over the 2 days following the luteal peak. Additionally, the issue of the risk associated with the use of combined oral contraceptives in women with migraines is discussed. Most of the studies analyzed reinforce the need, to a certain extent, to limit this form of contraceptive treatment in the female contingent that has manifestations of migraine with aura. However, when this parameter is analyzed in women who have migraines without aura, there is a drop in the results found, which leads to a discussion about the effective probability of this limitation. The most relatable evidenced effect is the intensification of pain during the menstrual period in patients using combined hormonal contraceptives. Another risk brought into question is the possibility of stroke in these women, due to the thrombogenic potential of these medications. The presence of "exogenous hormone-induced headache" is practically consensual. However, disagreements regarding the risk of stroke are constants, as women with migraines without aura have a negligible chance of suffering this condition. Consensus statement by the European Headache Federation (EHF) and the European Society of Contraception and Reproductive Health (ESC) in 2019, for example, calculated the absolute risk of stroke in young women with migraines but without aura as 4 /100,000, and in women manifesting migraine with aura 5.9/100,000. In view of the results presented, it is also worth noting that the amount of hormones present in oral contraceptives reduced exponentially, which, consequently, led to a drop in the risk associated with their use (since this hormonal load was considered as the main responsible for these side effects), especially in women whose migraine manifests without aura.

### Conclusion

Therefore, it is evident that, although there are risks associated with the use of oral combined hormonal contraceptives in women with migraines, such as the intensification of pain and the possibility of stroke, they have been shown to be reduced over time, although the attention and limitation given to women who experience migraine with aura should be maintained, as the risk in this group is higher. As a result, contraceptive treatment should still be considered an option to some women, given the individual conditions of each patient, without the need to completely discard its use.

**Keywords:** Migraine; Contraceptives; Women; Hormones.