# Headache Medicine



## Warning signs in pediatric headache: a literature review

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#### Introduction

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headache is the third leading cause of visits to pediatric emergency rooms. This symptom is of great concern to this age group, as it is one of the main causes of disability and losses in their neuropsychomotor development. Studies indicate that 90% of pediatric headaches have a primary cause, such as migraine, cluster headache, or tension-type headache, which are usually easy to diagnose and self- limiting. However, although fewer in number, there are still secondary headaches, which can be fatal and must be carefully diagnosed and treated quickly. In the clinical setting, the initial assessment and identification of warning signs are extremely important for the diagnosis and follow-up of headaches in children and adolescents.

#### Objective

this study aims to understand and describe the warning signs of pediatric headaches that require more detailed investigation and their main causes.

### Methods

this is a bibliographic review of scientific articles published in the Pubmed, Medscape, and Embase databases. Articles from the last five years were used with the descriptors "Headache" "Pediatrics", and "Red flags".

#### Results

headache is generally a benign condition that can be easily diagnosed and treated; however, this symptom can underlie fatal diseases. To identify the severity of the headache, some clinical signs are used, one of which is the association with systemic symptoms such as fever, toxemia, neck stiffness, and skin rash, which are often indicative of infections that account for the majority of headaches cases in preschool children, such as bacterial meningitis and viral encephalitis. In addition, in the presence of neurological deficits combined with chronic and progressive headache, the presence of brain tumors should be investigated, which, due to traction on blood vessels and the dura mater, as well as compression of cranial nerve fibers by the tumor mass itself, in addition to increased intracranial pressure (>28 cmH 2 O), contribute to the pain. Focal neurological symptoms such as ataxia, behavioral changes, visual disturbances, and seizures are strong predictors of life-threatening conditions and should be referred to a neuropediatrician immediately. The time of onset of the headache also says a lot about its severity since those that start in the morning or those that have nocturnal awakenings have been associated with intracranial lesions or suggestive of sleep disorders, such as sleep apnea; however, studies report that 25% of children with primary headache wake up at night, so it is important that the anamnesis is taken in detail. Venous sinus thrombosis begins in more than 75% of cases with headache and is usually accompanied by vomiting, diplopia, papilledema, and seizures. Some studies have shown that young age is also a warning sign, i.e. children under the age of 5 have the greatest chance of an unfavorable diagnosis.

#### Conclusions

an intensive approach to headaches in pediatrics is necessary, consisting of a detailed anamnesis, with an important focus on alarm signs since these can strongly contribute to the correct diagnosis of a serious condition.

Keywords: Headache; Pediatrics; Red Flags.

