



Research Article *of the Month*

Tan E, et al. **Comparison of acetaminophen (paracetamol) with ibuprofen for treatment of fever or pain in children younger than 2 years: a systematic review and meta-analysis.** JAMA Netw Open 2020;3(10):e2022398. doi: 10.1001/jamanetworkopen.2020.22398

In a Nutshell:

Using ibuprofen to treat fever or pain in children under 2 years is associated with reduced symptoms compared to acetaminophen with comparable safety.

Compared to acetaminophen, ibuprofen is associated with greater temperature reduction in the first 24 hours of use, and reduced pain at 4 to 24 hours.



Ibuprofen can be used safely to treat fever and pain in children under 2 years

The Details:

This systematic review and meta-analysis sought to determine the effectiveness of over-the-counter medications ibuprofen and acetaminophen to reduce fever and pain in children under 2 years of age.

This review and meta-analysis sought to better understand the efficacy of ibuprofen and acetaminophen to treat fever and pain in young children and compare the safety profiles of these two medication for children under two years of age.

Moderate-quality evidence from randomized studies found that **ibuprofen reduced children's temperature more than acetaminophen within 4 hours and also between 4 to 24 hours.** Moderate-quality evidence found **ibuprofen reduced children's pain more than acetaminophen between 4 and 24 hours following administration,** with low-quality evidence finding similar analgesic effects for ibuprofen and acetaminophen for treatment lasting 1 to 3 days.

Across all studies, there were very low rates of adverse events reported for ibuprofen and acetaminophen. Moderate-quality evidence found that **the likelihood of severe adverse events was similar for children treated with either medicine.**