

# PAEDIATRIC PAIN AND FEVER

## What is pain?

- Pain is an unpleasant sensation signalling an injury to some part of the body.<sup>1</sup>
- Pain may be sharp or dull, intermittent or constant, or throbbing or steady. Sometimes pain is very difficult to describe. The intensity of pain can vary from mild to intolerable.<sup>1</sup>
- Pain in children is often under-treated.<sup>2</sup>

## What causes mild to moderate pain and fever in children?

- Viral or bacterial infections can cause mild-to-moderate pain and fever in children, such as the common cold, a sore throat or common childhood illnesses such as chickenpox.<sup>4</sup>
- Teething in young children is often a cause of discomfort as the tooth erupts through the gums. Cavities may also cause toothache in older children.<sup>5</sup>
- Headaches are common in children, occurring in up to 75 percent of school-aged children.<sup>6</sup>
- There are many causes of headaches in children, but some of the more common causes include an upper respiratory tract infection (an ear infection, a throat infection, a sinus infection or an allergy), a minor bump on the head, or a tension headache.<sup>6</sup>

## What is fever?

- Fever is a normal response of the body to illness that facilitates and accelerates recovery.<sup>3</sup>
- Fever is defined as a body temperature  $\geq 38^{\circ}\text{C}$ .<sup>3</sup> Fever is frequently a cause for concern among parents and healthcare providers.<sup>3</sup>

- In children, it is more accurate to measure body temperature in the ear, or in the axilla (armpit).<sup>3</sup> Fever causes discomfort, which is often associated with pain due to the underlying condition such as a sore throat or headache.<sup>3</sup>
- Fever is not harmful in itself. However, fever in a child younger than 3 months of age should be further investigated by your health care provider.<sup>3</sup>

## Treatment of pain and fever in children

- Medicines to relieve pain and fever are mostly given to relieve the discomfort of the child. This enables the child to eat better, to prevent dehydration and to reduce irritability.<sup>3,4</sup>
- Paracetamol and ibuprofen may be given to children to relieve pain and fever. Aspirin should not be given to children or adolescents, as it increases the risk of a rare but serious condition called Reye syndrome.<sup>4</sup>
- Due to anxiety or fear of fever, parents or caregivers may give more medicine than is needed to adequately treat a fever. On the flip-side, pain, especially in young children, is often under-treated.<sup>2</sup>
- For pain and fever medicine to work most effectively, it is very important to give it to the child at the correct prescribed dose, at the correct scheduled time.<sup>2</sup>
- For example, for effective control of pain, paracetamol should be given as a scheduled dose over time, and not "as needed".<sup>2</sup>
- Giving too much medicine may result in unwanted side-effects or toxicity, and giving too little will hamper the effect of the medicine.<sup>2</sup>



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## Paracetamol in the treatment of pain and fever in children

Paracetamol has a dual action, which means it relieves both mild-to-moderate pain and fever in children.<sup>7</sup> It is the number one prescribed reliever of pain and fever in children by South African paediatricians<sup>8</sup> and is endorsed by expert bodies around the world, including the World Health Organisation.<sup>2</sup> Paracetamol may be given to children younger than 3 months of age, and children with chickenpox.<sup>2</sup>

### Tips on the correct administration of medication for pain and fever<sup>3</sup>

- Doses should be measured carefully to avoid over- or under-dosing.
- If the temperature does not come down after one dose, do not administer another dose immediately. Wait for the appropriate dosing interval to pass and only give another dose at the correct time.
- If the child vomits immediately after taking a dose of medicine, another dose may be given.
- Avoid combination products and 'cough and cold medicines', which complicate dosing and may increase the risk of overdose and side-effects.
- Medication should not be administered for longer than 2 days without consulting a doctor.

### Home care tips for a fever<sup>3</sup>

- Do not over-dress or under-dress the child, or wrap the child in heavy blankets.
- Encourage the child to drink fluids regularly (breast milk is best for breastfeeding children).
- To ensure that you are using the correct medication at the correct dose, speak to your doctor or pharmacist before administering medication for fever.
- Check the child during the night, but do not wake the child just to administer medication for a fever.
- Seek further medical advice if the fever does not get better within 48 hours, or if the child's condition worsens.
- Sponging with tepid water is not recommended.

### Panado® paediatric syrup - Alcohol and sugar free

#### Recommended dose<sup>9</sup>

#### Children

Under 3 months	10mg/kg (0,41 mk/kg)
3 months to 1 year	2,5 to 5 ml (60 to 120 mg)
1 to 5 years	5 to 10 ml (120 to 240 mg)
6 to 12 years	10 to 20 ml (240 to 480 mg)

While symptoms persist, to be repeated every 4 hours if needed to a maximum of 4 doses per 24 hours for not longer than 5 days<sup>9</sup>

**References:** 1. Watson JC. Overview of Pain [online] October 2018 [cited 19 November 2019]; Available from URL: <https://www.merckmanuals.com/home/brain-spinal-cord-and-nerve-disorders/pain/overview-of-pain>. 2. De Martino M, Chiarugi A. Recent Advances in Pediatric Use of Oral Paracetamol in Fever and Pain Management. *Pain Ther* 2015;4:149–168. DOI:10.1007/s40122-015-0040-z. 3. Green R, Jeena P, Kotze S, et al. Management of acute fever in children: Guideline for community healthcare providers and pharmacists. *S Afr Med J* 2013;103(12):948-954. DOI:10.7196/SAMJ.7207. 4. Tesini BL. Overview of Viral Infections in Children. Merck Manual Consumer Version [online] September 2019 [cited 19 November 2019]; Available from URL: <https://www.merckmanuals.com/home/children-s-health-issues/viral-infections-in-infants-and-children/overview-of-viral-infections-in-children?query=tonsillopharyngitis%20in%20children>. 5. Hennessy BJ. Toothache. Merck Manual Consumer Version [online] September 2018 [cited 19 November 2019]; Available from URL: <https://www.merckmanuals.com/home/mouth-and-dental-disorders/symptoms-of-oral-and-dental-disorders/toothache?query=toothache%20in%20children>. 6. Bonthuis DJ, Hershey AD. Headache in children. Beyond the basics [online] October 2019 [cited 19 November 2019]; Available from URL: <https://www.uptodate.com/contents/headache-in-children-beyond-the-basics>. 7. Adcock Ingram Data on File. Reference available on request. 8. Impact Rx February 2019. 9. Panado® Paediatric Syrup Alcohol and Sugar Free & Panado® Paediatric Syrup package insert. April 2010. 10. Wilcock A, Twycross R. Therapeutic reviews: Acetaminophen (Paracetamol). *J. Pain Symptom Manag.* 2013;46(5):747-757. 11. Panado Paediatric Syrup Strawberry Approved package insert March 2002. 12. Van den Anker JN. Optimising the management of fever and pain in children. *Int J Clin Pract* 2013;67(178):26–32. 13. Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th ed. Acetaminophen, p696.

<sup>10</sup> Panado® Paediatric Syrup Strawberry. Each 5 ml contains paracetamol 120 mg. Reg. No. 35/2.7/0112.

<sup>11</sup> Panado® Paediatric Syrup Alcohol and Sugar Free. Each 5 ml contains paracetamol 120 mg. Reg. No. V/2.8/208.

<sup>12</sup> Panado® Paediatric Infant Drops and Sugar Free. Each 0,6 ml contains paracetamol 60 mg. Reg. No. V/2.7/209.

For full prescribing information refer to the package insert approved by the medicines regulatory authority. 2019112810177489.

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