



Paracetamol for paediatric fever: The facts.

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Fever is one of the most common reasons for children to present to our hospitals (some estimate it to account for 1/3 of paediatric presentations to healthcare providers).

Fever is classified as a body temperature above 38 C.

Here is a quick bullet-point summary on the management of paediatric fever with Paracetamol (US = Acetaminophen).

Benefits of Fever:

1. Fever has beneficial effects in fighting infection.
 - It retards the growth and reproduction of both viruses and bacteria.
 - It also enhances neutrophil and T-lymphocyte production.
2. Fever may also help the body to recover more quickly from viral infections.

So, if the child is well and happy there is no need to treat the fever.

Problems with Fever:

1. Patient discomfort.
2. Increased insensible water loss.

Therefore, the primary goal for administering paracetamol should be to improve the level of comfort of the patient rather than to bring down the temperature.

Myths about Fever:

- Fever does not increase the risk of adverse outcomes such as brain damage. There will be no increase in adverse outcomes even with fevers above 40 C.
- Height of the temperature does not correlate with the severity of illness. The caveat to this is that fevers of 38 or more in infants < 3 months old. These patients require immediate assessment by senior medical staff.
- There is no evidence that antipyretic treatment decreases the recurrence of febrile seizures.
- Tepid sponging is not recommended. However over-wrapped children should be undressed.

Paracetamol:

- Recommended dose **10 to 15 mg/kg every 4 to 6 hrs orally up to a maximum of 4 doses each 24hrs.**
- Onset of antipyretic effect is 30–60 minutes. Approximately 80% of children will experience drop in temperature at that time.
- Some suggest an initial loading dose of 20–30 mg/kg. But there is no consistent evidence to support improved antipyretic efficacy with this regime.

- There is no substantial difference in effectiveness between paracetamol and ibuprofen in a generally healthy child with fever.
- There is some evidence that combining paracetamol and ibuprofen may be more effective than a single agent alone.
However, there is no evidence that combination therapy results in overall improvement of clinical outcomes.
- **Combination therapies of paracetamol and ibuprofen should not be recommended to parents as it presents an increased risk of dosage errors and adverse outcomes.**

Tips for parents:

- Correct dosage of paracetamol should be based on child's weight.
Accurate measuring devices should be used.
- Paracetamol should always be stored in a safe child proof area.
- The goal is to focus on improving the comfort/well-being of their child.
To maintain good level of hydration and to observe for signs of serious illness.
There is no need to wake their child overnight to administer paracetamol.

A useful patient handout information sheet is available here:

https://www.rch.org.au/kidsinfo/fact_sheets/Fever_in_children/

Reference:

1. Fever and Antipyretic Use in Children [Internet]. Available from: <http://pediatrics.aappublications.org/content/127/3/580.full>
2. FOAM4GP Map – Paediatric Fever Phobia | FOAM4GP [Internet]. Available from: <http://foam4gp.com/2013/11/08/foam4gp-map-paediatric-fever-phobia/>

3. NSW Health, New South Wales, Department of Health. Infants and children: acute management of fever. North Sydney, NSW: NSW Dept. of Health; 2010.
4. JAMA Network | JAMA Paediatrics | Antipyretic Agents for Preventing Recurrences of Febrile Seizures: Randomized Controlled Trial [Internet]. Available from: <https://jamanetwork.com/journals/jamapediatrics/fullarticle/382103>
5. Kids Health Info: Fever in children [Internet]. Available from: http://www.rch.org.au/kidsinfo/fact_sheets/Fever_in_children/
6. NICE fever guidelines for kids [Internet]. Available from: <http://lifeinthefastlane.com/nice-fever-guidelines-for-kids/>



Ian Miller