

FEVER IN CHILDREN

Symptoms: A fever is a raised body temperature of over 38° C. The child feels hotter than normal. Fever is often normal and gets better by itself. It is usually an indication of an underlying infection and it is a natural response to help the body fight that infection. Check the body temperature with an appropriate thermometer (see below).

For more information:

NICE clinical guideline 160 Feverish illness in children:

guidance.nice.org.uk/cg160

NHS Choices Fever in children pages:

<http://www.nhs.uk/conditions/feverchildren/pages/introduction.aspx>



Pharmacist should refer to a clinician if the patient presents with any of the following Red Flags



Red flags

- **High fever** - Body temperature of 38°C or over in children under 3 months or 39°C or over in children aged 3 to 6 months
- **Premature child** - Child born prematurely and less than 3 months of age
- **Duration** - Symptoms persisting for more than 5 days, or symptoms persisting for more than 3 days whilst on treatment
- **Skin colour** - Pale/mottled/ashen/blue colour of skin, lips or tongue
- **Response** - Child does not respond normally and wakes only with difficulty, appears ill or does not smile
- **Unusual crying** - Cries in an unusual way – weak, high pitched or continuous cry
- **Vomiting** - Repeated vomiting or dark green vomit
- **Breathing** - Breathing much faster than usual, flared nostrils, skin between the ribs or the area just below the rib cage moves abnormally during breaths
- **Abnormal grunting**
- **Hydration** - Child does not eat or drink much and does not pass much urine, nappies remain dry, fontanelle is bulging or sunken
- **Non-blanching rash** – rash that does not fade on pressure
- **Other signs** - Neck stiffness (not being able to touch chin to chest), cold limbs or fitting, other unexplained or unusual symptoms

Always follow WWHAM protocol and advise to read PIL before taking any medicine

Significant interactions/warnings

Care should be taken in children already taking pain relief to avoid overdose

Paracetamol:

- Metoclopramide and domperidone increase speed of absorption
- Colestyramine reduces absorption
- Do not take with any other product that contains paracetamol

Ibuprofen:

- May exacerbate asthma
- Corticosteroids/anticoagulants can increase risk of GI ulceration or bleeding
- Do not take with any other NSAIDs or if allergic to any NSAIDs

Please refer to the British National Formulary and individual product packaging for cautions and contraindications

Self care advice

- **Check temperature** - in children aged between 4 weeks and 5 years use an electronic thermometer or chemical dot thermometer in the child's arm pit or an infra-red ear thermometer in the ear canal. Use your judgement if you do not have a thermometer to check whether your child is abnormally hot
- **Loose clothes** - Do not over or under-dress a child with a fever
- **Keep the room cool** – may need to turn down central heating in the winter or open windows and doors in the summer. (N.B. tepid sponging is no longer recommended to keep a child cool)
- **Hydration** - Keep your child well hydrated by offering fluids regularly or, if breastfeeding, offer as many feeds as the child will take
- **Rest** – get the child to rest and keep off nursery or school

Treatment option ONE

Always follow WWHAM protocol and advise to read PIL before taking any medicine

If fever only is present (all ages)

Self care advice

- Keep well hydrated - Offer fluids/ breastfeeds regularly
- Keep cool - Keep the room cool, about 18° C is about right
- Keep the child cool, undress down to underwear and cover with a lightweight sheet
- Check child at night for signs of worsening fever and meningitis

Antipyretics (medicines to reduce temperature) should not be used with the sole aim of reducing body temperature in children with fever who are otherwise well. Paracetamol or ibuprofen should only be considered in children with fever who appear distressed (see below). Whilst most children with fever may be distressed, be aware of these guidelines for those not in distress.

If fever is present and child is unwell or distressed (for children 3 to 12 months)

Paracetamol 120mg/5ml suspension (in a dose appropriate for their age)

Paracetamol: For both age ranges: **No more than 4 doses in 24 hours**
3 to 6 months: **One 2.5ml dose (60mg) every 4 to 6 hours**
6 to 12 months: **One 5ml dose (120mg) every 4 to 6 hours**

Ibuprofen 100mg/5ml suspension (in a dose appropriate for their weight and age)

Ibuprofen:
3 to 6 months (if above 5kg): **One 2.5ml dose (50mg) 3 times a day (every 6 to 8 hours)**
6 to 12 months: **One 2.5ml dose (50mg) 3 to 4 times a day (every 6-8 hrs)**
For both ages: **Max 30mg/kg daily** in 3-4 divided doses. Not suitable for children under 5kg or under 3 months, or with suspected asthma (unless advised by a doctor)

If a child over 3 months has a fever and is unwell/ distressed they can be given either paracetamol or ibuprofen. These products should be continued only as long as the child is distressed/ unwell. They should not be given at the same time. If the child does not respond to one and is still in distress then the alternative should be considered for the next dose. Note individual product licenses for age/dose for ibuprofen products may vary. Always check the pack for details. Treatment should only be continued as long as child is responding up to a max 3 days.

Treatment option ONE (cont)

Always follow WWHAM protocol and advise to read PIL before taking any medicine

If fever is present and child is unwell or distressed (for children 12 months to 6 years)

Paracetamol 120mg/5ml suspension (in a dose appropriate for their age)

Paracetamol: For all age ranges: No more than 4 doses in 24 hours
12 months to 2 years: **One 5ml dose (120mg)** every 4 to 6 hours
2 to 4 years: **One 7.5ml dose (180mg)** every 4 to 6 hours
4 to 6 years: **One 10ml dose (240mg)** every 4 to 6 hours

Ibuprofen 100mg/5ml suspension (in a dose appropriate for their weight and age)

Ibuprofen:
12 months to 4 years: **One 5ml dose (100mg) 3 times a day** (every 6-8 hrs)
4 to 6 years: **One 7.5ml dose (150mg) 3 times a day** (every 6-8 hrs)
For both ages: **Max 30mg/kg daily** in 3-4 divided doses. Should be used with caution in children with asthma (unless advised otherwise by a doctor)

If a child over 12 months has a fever and is unwell/ distressed they can be given either paracetamol or ibuprofen. These products should be continued only as long as the child is distressed/ unwell. They should not be given at the same time. If the child does not respond to one and is still in distress then the alternative should be considered for the next dose. Note – individual product licenses for age/dose for ibuprofen products may vary. Always check the pack for details. Treatment should only be continued as long as child is responding up to a max 3 days.

If fever is present and child is unwell or distressed (for children 6 to 12 years)

Paracetamol 250mg/5ml suspension (in a dose appropriate for their age)

Paracetamol: For all age ranges: No more than 4 doses in 24 hours
6 to 8 years: **One 5ml dose (250mg)** every 4 to 6 hours
8 to 10 years: **One 7.5ml dose (375mg)** every 4 to 6 hours
10 to 12 years: **One 10ml dose (500mg)** every 4 to 6 hours

Ibuprofen 100mg/5ml suspension (in a dose appropriate for their weight and age)

Ibuprofen:
6 to 7 years: **One 7.5ml dose (150mg) 3 times a day** (every 6-8 hrs)
7 to 10 years: **One 10ml dose (200mg) 3 times a day** (every 6-8 hrs)
10 to 12 years: **One 15ml dose (300mg) 3 times a day** (every 6-8 hrs)
For both ages: **Max 30mg/kg (up to 2.4g) daily** in 3-4 divided doses. Should be used with caution in children with asthma (unless advised otherwise by a doctor)

If a child has a fever and is unwell/ distressed they can be given either paracetamol or ibuprofen. These products should be continued only as long as the child is distressed/ unwell. They should not be given at the same time. If the child does not respond to one and is still in distress then the alternative should be considered for the next dose. Individual product licenses for age/dose for ibuprofen products may vary. Always check the pack. Children over 12 are considered adults. Treatment should only be continued as long as child is responding up to a max of 3 days.

Follow-up Treatment – Pharmacist only

Always follow WWHAM protocol and advise to read PIL before taking any medicine

If fever only is present (all ages)

Self care advice

- Keep well hydrated - Offer fluids/ breastfeeds regularly
- Keep cool - Keep the room cool, about 18° C is about right
- Keep the child cool, undress down to underwear and cover with a lightweight sheet
- Check child at night for signs of worsening and meningitis

Antipyretics (medicines used to reduce temperature) should not be used with the sole aim of reducing body temperature in children with fever. Paracetamol or ibuprofen should only be considered in children with fever who appear distressed (see below). Whilst most children with fever may be distressed, be aware of these guidelines for those not in distress.

If fever is present and child is unwell or distressed (for all children)

Paracetamol suspension (in a strength and dose appropriate for their age)

Ibuprofen 100mg/5ml suspension (in a dose appropriate for their weight and age)

Follow the guidance outlined in treatment option ONE. There is no rationale for pharmacists increasing the doses included in treatment option ONE. The licensed indications for OTC antipyretics are for use for 3 days.

Where the child has responded to treatment and showing signs of improvement, there may be some value in considering whether a pharmacist could advise after 3 days and extend the treatment time to 5 days if there were no red flag symptoms and if the parent was comfortable for that to happen.

Be mindful of the recent reminder to GPs of the care needed in diagnosing meningitis promptly, so care must be taken before treatment option two, which delays the referral to the GP, is considered.