

An approach to pain and fever in children

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When a child shows symptoms of pain or fever, the underlying cause must be determined. Some causes of pain are obvious, such as an injury or accident, others may require further investigation.

Older children may be able to describe the type of pain, but younger children and infants are unable to verbalise their symptoms.^{1,2}

Abdominal pain

Abdominal pain is any pain between the chest and groin area. Most abdominal pain is not serious. Severe pain that does not resolve within 24 hours, gets worse, or becomes more frequent may be a symptom of appendicitis, gall stones, stomach ulcer, bowel twisting, inflammatory bowel disease or a urinary tract infection. Diarrhoea may lead to dehydration in infants and can be serious.

Abdominal pain may present with different symptoms depending on the cause:

- Generalised pain over more than half the belly may indicate a stomach virus, indigestion, gas or constipation.
- Cramp-like pain is often due to gas or bloating.
- Pain that comes in waves and is severe is symptomatic of colic.
- Localised pain in a specific area of the belly may be due to appendicitis or an ulcer.

Small children with stomach pains may:

- Be more fussy or irritable
- Draw their legs upwards towards the belly
- Eat poorly¹

Headache

Children get the same types of headaches as adults. The headaches most common in children are migraines and tension headaches. Even infants can experience migraine headaches and will cry and may hold their head to indicate severe pain. Older children may describe symptoms of a headache as throbbing pain with sensitivity to light and

sound, or with visual disturbances. These are migraine symptoms. A tension headache may be described as a pressing tightness in the muscles of the head or neck. Both types of headache may be accompanied by nausea and vomiting. A smaller child may cry and hold their head with severe pain, or withdraw from normal play and want to sleep.³

Earache

Earache is common in children and is often due to a minor infection and will clear within a few days. A build-up of ear wax or a foreign object inserted into the ear canal are other common causes of ear pain. Throat infections and dental problems may cause earache. Ear infections may start quickly and present with ear pain and fever.

Symptoms of an ear infection may include:

- Pain in the ear
- High temperature ($\geq 38^{\circ}\text{C}$)
- Nausea
- Lack of energy
- Difficulty hearing
- Discharge from ear
- Feeling of pressure in the ear

A young child or infant may tug on the ear, not react to sounds, be more irritable or restless than usual and lack interest in food.^{4,5}

Sore throat

A painful, scratchy throat may be caused by colds and flu, viral and bacterial infections including tonsillitis and allergies.

Symptoms include pain, difficulty swallowing, sore or swollen glands in the neck, hoarse voice, fever, cough or body aches. Children will often refuse to eat when their throat is sore.⁶

Fever

A fever is not an illness by itself, but is a symptom of an

underlying infection.² A fever occurs when the body temperature is higher than normal (normal body temperature is 36.7 °C). A temperature higher than 38 °C is considered a fever.⁷

Fever is usually caused by viral infections such as influenza or gastro-enteritis, but may also be caused by bacterial infections or inflammatory conditions, or as a side-effect of certain medications and vaccines. Other infections such as malaria will also cause the patient to present with a fever.

Children may complain of feeling cold at the start of a fever. They may look pale and feel shivery, but will be hot and dry to the touch. Later they will say they are hot, and will be sweaty and flushed. Children with a fever may be listless, tired and miserable, and have watery eyes.

Some children may have febrile convulsions, a type of fit due to the rapid rise in their body temperature.

Small children and infants must be watched for dehydration. Symptoms include:

- Dry lips and tongue
- Less frequent or no wet nappies
- Decreased skin elasticity
- Sunken fontanelle^{2,7}

Treatment

Lying down quietly may ease the symptoms of abdominal pain. Some patients may find a hot water bottle placed over the abdominal area comforting. Foods that can be irritating to the stomach should be avoided. These include: caffeine, fizzy drinks, citrus, dairy products, fatty or greasy foods and tomato products. If the pain does not subside within 24 hours or gets worse, the child should be examined by a doctor.¹

Headaches can be treated with paracetamol or ibuprofen products. If a child has migraines they may be prescribed anti-migraine medications as well as medicine for nausea. Over-the-counter (OTC) painkillers should not be used for prolonged periods as rebound headaches may occur or the medications may become less effective.³

OTC painkillers may be used to treat earache. Non-prescription eardrops should not be used if infection is present or if the ear drum is burst. Ear wax should be softened before removal. Foreign objects pushed into the ear should be removed by a doctor to prevent further damage.⁴

Patients with sore throats may not want to eat, but should drink plenty of fluids. Warm drinks may be soothing. Humidifying the air may be helpful. Older children may like to suck on boiled sweets or medicated lozenges, but these must not be given to children under the age of four years as they pose a choking hazard. OTC painkillers may be used.⁶

Treatment of fever depends on the underlying cause. Antibiotics may be necessary in the presence of bacterial infection. OTC medications will treat the symptoms of fever but not the cause. Fluids should be given to prevent

dehydration.⁷

Aspirin should not be given to children under 16 years of age as it has been linked to Reye's syndrome.²

When to see the doctor

For most illnesses, if the symptoms have not eased within 24 hours or have worsened, medical help may be necessary. Any fever accompanied by other symptoms such as abdominal pain, headache, sore throat or earache, must be investigated. The cause of any fever in infants under three months, and a temperature higher than 39 °C in any child must be determined quickly. Any child with a fever who is drowsy or unresponsive must be examined by a doctor.^{2,7}

Abdominal pain accompanied by nausea for more than 12 hours or diarrhoea for more than two days must be investigated. Sudden sharp abdominal pain or a child unable to pass a stool or with a rigid hard belly, requires examination. A baby under three months with diarrhoea or vomiting must be taken to the doctor.¹

A headache that wakens a sleeping child or that follows an injury or blow to the head must be investigated. A child with a headache accompanied by nausea and visual disturbances, or by fever and neck stiffness must see a doctor.³

Earache lasting more than three days or featuring a fever and/or sore throat must be seen to.^{4,5} Sore throats that are not eased by fluids should be investigated.⁶

Any child with difficulty breathing or swallowing, or with rapid breathing should be examined further.^{1,2,6,7}

Conclusion

Any child with symptoms of pain and/or fever should be observed. If the problems are affecting the child's behaviour, they should be investigated. Fevers should be monitored carefully especially in infants.

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