



THE PROFESSIONAL ASSISTANT LEARN & ADVISE



Children's pain and fever

When a child is in pain or has a fever, it can be a worrying time. So it is important for pharmacy assistants to know how to advise parents and when to refer to the pharmacist.



OBJECTIVES

After studying this module, assistants will:

- Understand some of the different causes of pain and fever in children
- Be familiar with some of the common medicines used to treat pain and fever in children
- Know when to refer to the pharmacist.

Pain

Pain is the body's way of telling us that something somewhere needs attention. It is a complex feeling and can be hard to describe, particularly for young children. So, how do we feel pain? Well, pain is controlled by the nervous system and when we are ill or hurt ourselves a pathway is set in motion:

When an infant is ill or hurt, nerve endings in their bodies called nociceptors detect the tissue damage.

At the same time, the tissues around the damaged area release chemicals called prostaglandins, which help to amplify the pain signals to the brain through inflammation and swelling.

Nociceptors send pain signals from the site of injury or pain to the brain via the spinal cord to let us know that something isn't right.

Fever

A fever is when a child has a temperature of over 37.5°C. It often accompanies pain and inflammation. Rather than being an illness in itself, a fever is often a sign that an infection is present. This is because the prostaglandins that travel to the brain also act on the temperature-regulating centre of the brain, causing the body's temperature to rise above normal. When a child has a fever, they may have hot, flushed cheeks, feel hotter to the touch than usual or feel clammy.

Children can be affected by a number of different infections as their immune systems are developing, including colds and flu and ear and throat infections. Often, these illnesses are accompanied by a fever. For instance, a child with an ear infection will feel a lot of pain and will quite often have a high temperature or fever. A child's temperature can be checked using a thermometer, and there are a range of different types available for parents to choose from.



This module is suitable for all members of the pharmacy team who wish to increase their knowledge of common conditions, treatment options and communication skills. This module has been endorsed with the NPA's Training Seal as suitable for use by pharmacy teams as part of their ongoing learning. This module can also form part of your Team Tuesday training.



DID YOU KNOW?

The normal body temperature for children is around 36.4°C.

Understanding the problem

It can be difficult for young children to describe their pain, but a parent can usually tell if their child is in distress. A variety of factors, including teething, colic, injury or infection may cause pain.



Pain in infants

- 1 Colic:** may start within weeks of birth and symptoms peak around two to three months of age. Parents can be reassured that it should resolve by three to four months. Babies may have periods of intense crying, often in the early evening, pull up their legs and arch their backs. They should still feed and gain weight. Colic may be linked to trapped wind or having an immature digestive system.
- 2 Teething:** first teeth can start appearing in babies around six to nine months of age. Symptoms may appear from as early as three months, before teeth are visible. Teething causes pain and discomfort around the gums, swollen gums, excessive saliva production and an increased tendency to chew on objects for relief. The child may also have red, hot cheeks.
- 3 Colds and flu:** caused by a number of different viruses, colds are normally mild and resolve within a couple of weeks. Symptoms include sneezing, sore throat, runny nose, mild fever and a cough. Flu symptoms may come on more quickly, and make the child feel more poorly. They may complain of aching muscles. Care should be taken when recommending cough/cold products for children. Many ingredients are not suitable for those under six years of age. Remember to always check the packaging.
- 4 Ear infection:** children are more susceptible to ear infections and these often follow a cold. Symptoms include ear pain, fever, vomiting, hearing loss and lethargy. Children may pull or tug at their ear and also have a cough or runny nose. Ear infections should resolve within a few days.
- 5 Sore throat:** often caused by a viral illness, a sore throat can be alleviated with pain relief and should clear up within a few days.



Immunisations

Some children may develop a fever after their vaccinations. They should be kept cool, offered cold drinks and given an appropriate antipyretic – a drug used to prevent/reduce fever (such as paracetamol or ibuprofen). Parents may also be advised to give paracetamol to prevent fever after the meningitis B (MenB) vaccine, which is usually given at two and four months of age.

A total of three doses of 120mg/5ml strength suspension is recommended – 2.5ml as soon as possible after vaccination and then two more 2.5ml doses at four to six hour intervals. Parents of babies born prematurely (before 32 weeks) need to check the dose with their GP.

Red flags

If a child has symptoms of meningitis or septicaemia (blood poisoning), they need urgent medical attention.

Early symptoms of meningitis are similar to flu. Other symptoms include:

- A stiff neck
- A bad headache
- Dislike of bright lights
- Fever
- Vomiting
- Drowsiness/reduced responsiveness
- Convulsions/fits
- A rash
- Babies/toddlers may refuse to eat, not want to be touched or held, have a tense or bulging fontanelle, have a stiff body with jerky movements or be floppy.

Signs of septicaemia include:

- Reduced responsiveness
- Severe pains in arms, legs and joints
- Very cold hands and feet
- Rapid breathing
- Red/purple spots that don't fade
- Vomiting, diarrhoea, stomach cramps
- Fever.



DID YOU KNOW?

Children can get as many as eight to 12 colds a year.

Treatment options

Painkillers specifically formulated for children include flavoured suspensions containing paracetamol or ibuprofen. These can be given using an oral syringe or a medicine spoon. Some may contain sugar and/or colourings.

1 Paracetamol suspension is indicated for the treatment of mild to moderate pain and to reduce fever (antipyretic). It can be used for children aged over two months for post-immunisation fever. It is available in different strengths: 120mg/5ml or 250mg/5ml (for children over six years of age). For children over six years of age, melt-in-the-mouth tablets are also available (e.g. Calpol SixPlus Fastmelts).

2 Ibuprofen 100mg/5ml suspension is available for children aged over three months and weighing more than 5kg for fever/pain. It can be used for mild to moderate pain and post-immunisation fever. For children over seven years of age there are also chewable capsules (e.g. Nurofen for Children Chewable Capsules). Ibuprofen may not be suitable for children with asthma, and should not be used by children who have chickenpox.

For children under 16 years of age, paracetamol and ibuprofen should not be given at the same time. Current advice is that paracetamol or ibuprofen can be used for a child with a fever who is also distressed and unwell. An alternative product can be considered if the distress is not alleviated before the next dose is due.

3 Teething pain may be relieved using oral painkillers and/or teething gels. Teething products containing calming agents such as chamomile (e.g. Nelsons Teething Gel) are also available. Some products for oral pain contain salicylate salts and shouldn't be used by children under the age of 16 years.

4 Colic may be improved using drops containing simeticone (e.g. Infacol) or lactase (e.g. Colief Infant Drops). These should be tried for a week to see if they are effective. Parents and healthcare professionals can also discuss nutritional solutions such as infant formula milk.



SIGNPOSTING

For more information, you can:

- Use your *Counter Intelligence Plus* training guide
- Visit NHS Choices: nhs.uk
- Visit: meningitisnow.org.

Added advice

Teething:

- A chilled teething ring can help soothe sore gums
- Applying petroleum jelly around the mouth/chin can help prevent any rashes that occur as a result of excessive dribbling.

Colic:

- Sit the baby upright during feeding and burp after feeds
- Gently massage around the tummy
- Hold or move the baby around.

Fever:

- Check for any rashes or signs of dehydration
- Check on them during the night
- Give fluids regularly.

Infections:

- Everyone in the family should wash their hands regularly to prevent the spread of cold/flu germs
- Ensure they drink enough fluids and get plenty of rest
- A warm drink of lemon and honey (for children over one year of age) may help a cough
- Vapour rubs or saline drops can help to ease nasal congestion
- Cold drinks/ice lollies can help to soothe a sore throat
- A warm towel held against an infected ear may offer some relief.

When to refer:

In addition to your pharmacy protocol, you should also refer to the pharmacist any infant who:

- Is under six months with a fever
- Is not feeding
- Is vomiting green fluid
- Has blood in their faeces
- Has a persistent high temperature despite treatment
- Has any suspected signs of septicaemia or meningitis
- Makes a grunting noise when breathing
- Has a constant, inconsolable cry or high-pitched cry
- Has pale, blue/grey/ashen/mottled skin
- Has a fit associated with a fever
- Has signs of dehydration, such as fewer wet nappies
- Has symptoms that haven't improved as expected.



TEST YOURSELF ONLINE

GOOD PRACTICE KNOWLEDGE IS IMPORTANT WHEN ADVISING CUSTOMERS



Questions

1) Which statement is TRUE?

- a) A fever in a child is a temperature over 37.5°C
- b) A fever in a child is a temperature over 35.5°C
- c) A fever in a child can be treated with aspirin
- d) Tepid sponging is recommended to reduce a fever

2) Which of the following is not a symptom that could be associated with meningitis?

- a) A rash
- b) A fever
- c) A barking cough
- d) A stiff neck

3) Which of the following statements is TRUE?

- a) Paracetamol suspension 250mg/5ml can be given to a four-year-old with a cold
- b) Ibuprofen 100mg/5ml can be given to a two-month-old
- c) A child may get as many as eight to 12 colds a year
- d) Oral salicylate-based gels can be used to relieve teething pain

4) Which of the following is the most appropriate advice for a seven-year-old with asthma for her sore throat?

- a) Gargle with one 300mg aspirin tablet dissolved in water and swallow the solution
- b) Use a lidocaine spray three times a day
- c) Use 5ml ibuprofen suspension 100mg/5ml up to four times a day
- d) Use 5ml paracetamol suspension 250mg/5ml up to four times a day

5) Which of the following is the most appropriate additional advice for a four-year-old boy with a cold who is being given paracetamol suspension?

- a) Give plenty of fluids
- b) An oral decongestant liquid containing phenylephrine can be given to ease congestion
- c) A warm flannel against the ear may help
- d) A night-time cough syrup containing pholcodine can be used

6) Which of the following customers would you NOT refer to the pharmacist?

- a) A 10-year-old girl who has been using paracetamol suspension for five days
- b) A six-month-old girl who appears to be teething
- c) A five-year-old boy who is complaining of a really painful headache
- d) An eight-week-old baby with a fever

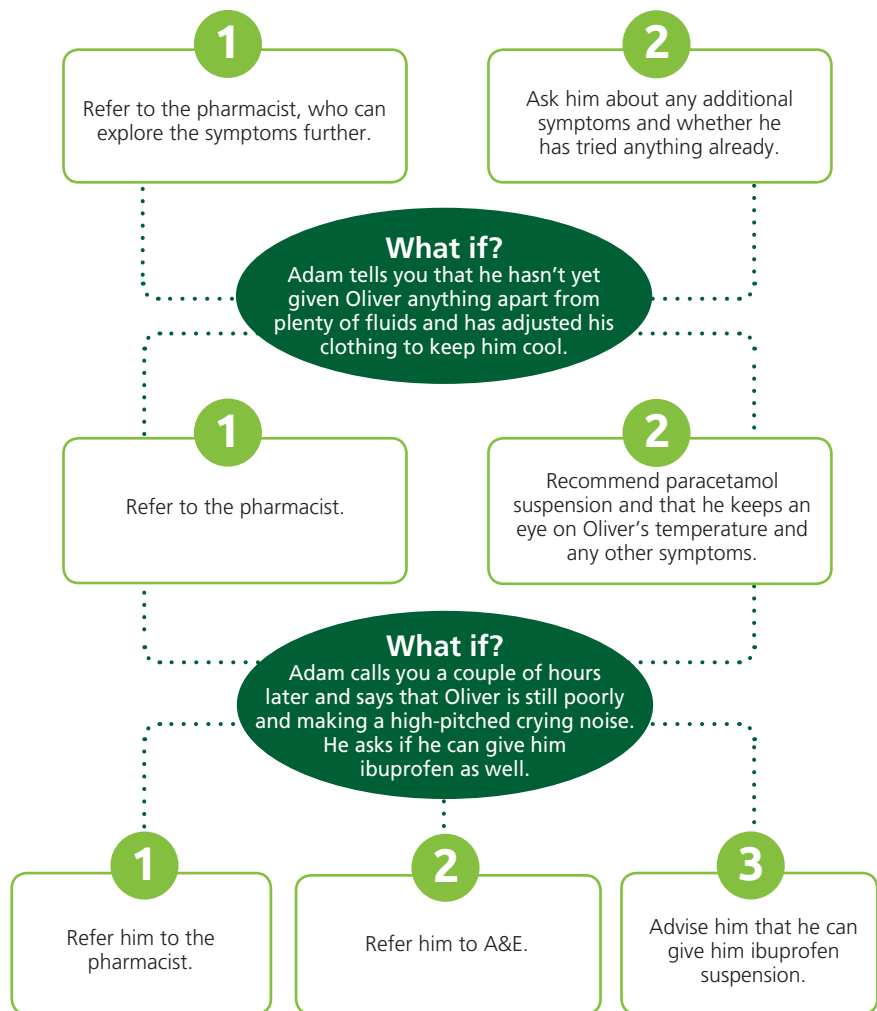


Scenario

Adam comes to the pharmacy counter looking for advice about his son. He is concerned about Oliver, who has just had his first birthday, as he has a fever and a runny nose, and seems to be under the weather.

What would you recommend?

For each part of this scenario, think about the decision you would make and, importantly, why you would choose that option. In addition, for each decision that you make, think about how you would talk to the customer and provide the necessary advice. You can discuss this with your team and your pharmacist.



Go to www.tmmagazine.co.uk to submit your answers to these questions. When you pass, you'll be able to download a certificate to showcase your learning. You can also add this to your online, personalised learning log.

www.tmmagazine.co.uk