

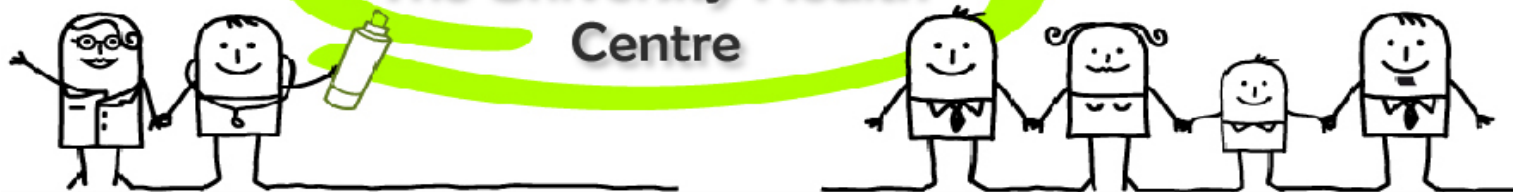


Patient Advice Booklet

This information booklet from, The University Health Centre, explains the causes, symptoms and treatment of common illnesses and where to get help.

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Tonsillitis

The tonsils are areas of tissue on both sides of the throat, at the back of the mouth. Your child's tonsils help them to build up immunity and fight infection. In many children, the tonsils become repeatedly infected with bacteria and viruses, which make them swell and become painful. This is called tonsillitis.

What causes tonsillitis?

Tonsillitis is the word used when the tonsils are infected so swell and become painful. Both bacteria and viruses can cause an infection – these are usually picked up as part of everyday life so there is little you can do to prevent them although good hygiene including hand washing is important.

What are the signs and symptoms of tonsillitis?

The main symptom of tonsillitis is a sore throat, which is particularly painful when swallowing. Your child may complain of earache as well.

The tonsils may also have a white covering or spots, which are a sign that the body is fighting off the infection. Your child's neck may look a little swollen as well, and they may have a temperature.

How is tonsillitis diagnosed?

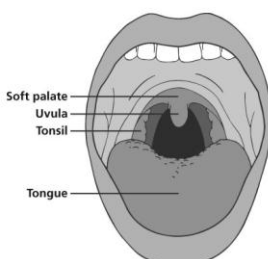
Tonsillitis can be diagnosed by looking closely in the mouth, sometimes using a small torch to look at the back of the mouth.

If the doctor wants to work out whether it is a virus or bacteria causing the infection, they will take swab of your child's tonsils. A swab is a large cotton bud that removes some of the coating on the tonsils so it can be examined under a microscope in the laboratory.

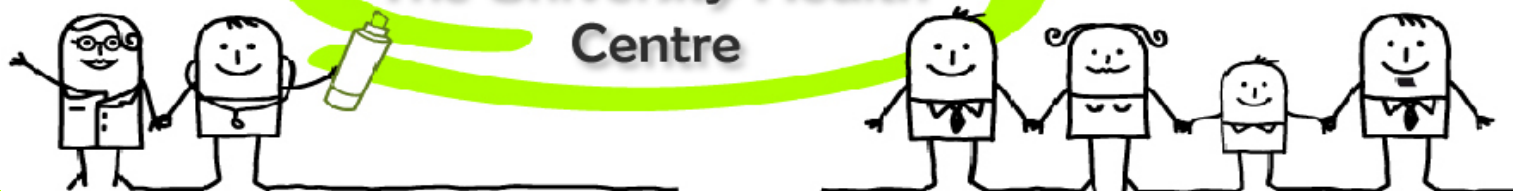
How is tonsillitis treated?

In many cases, treatment is not needed. Drinking plenty of fluid, eating soft foods and sucking on a throat lozenge can be helpful.

Pain relief medicines, such as paracetamol and ibuprofen can help reduce the pain and also bring down a temperature. If the infection was caused by a virus, as most cases of tonsillitis are, antibiotics will not work so are not required. Most cases of tonsillitis disappear within a few days. If your child has repeated bouts of tonsillitis, your doctor may suggest an operation to remove their tonsils.



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Tear Duct Blockage

Tears are the body's way of keeping the surface of the eye moisturised and free from debris, such as dust or pollen. Tears are formed in the lacrimal gland, which is above the outside corner of the eye, underneath the brow bone.

Each time we blink, tear fluid is swept across the surface of the eye and drains away through tiny channels in the inside corner of the eye. This is called the nasolacrimal duct. Tears drain through the duct into the nose.

What causes tear duct blockage?

We do not know why the tear duct is not fully open when some babies are born. It usually opens over the first few weeks and months of life without treatment.

What are the signs and symptoms of tear duct blockage?

Tear production does not start immediately after birth, so symptoms may not be noticeable for a week or two. The main symptom is watering eyes, with tears pooling in the corner of the eye, spilling over onto the cheeks. This occurs even when a baby is not crying. Symptoms may get worse when your baby has a cold or during cold weather, as tear production increases.

Sometimes, a baby's eyes may look sticky or crusted when they wake. Occasionally, the eye may look a bit pink, which may be a sign of conjunctivitis or inflammation of the eye covering.

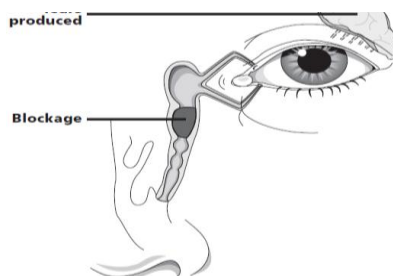
How is tear duct blockage diagnosed?

No special tests are needed to diagnose tear duct blockage. Usually the doctor will look closely at your baby's eyes and take a medical history.

How is tear duct blockage treated?

Usually the tear duct gradually opens during the first few weeks or months of life. This will stop the eye watering, although they may still be a bit watery during cold weather. If a baby's eyes are sticky or crusty on waking, this can be gently wiped away using gauze and cooled, boiled water. Sometimes, the doctor may suggest gentle massage to clear the blockage and encourage the duct to open, by pressing gently on the outside edges of the bridge of the nose.

Sometimes, the duct has not opened by the time the baby is one year old. In these cases, the doctor may suggest a procedure to open the ducts using a tiny probe while the baby is under anaesthetic. Occasionally, a tiny drainage tube may be inserted into the duct to keep it open.





Styes

A stye (hordoleum) is an inflamed area of the eyelid, either at the base of an eyelash (external hordoleum) or on the inside surface of the eyelid (internal hordoleum). Styes are more common in children than adults.

What causes a stye?

Styes are caused by the bacteria *Staphylococcus aureus*, which usually lives on the skin without causing any problems. The bacteria infect either an oil-producing gland or a sweat gland on the eyelid. Styes can be linked to other eyelid inflammation, such as blepharitis. Usually only one eye is affected although it is possible to develop several styes on the same eye.

What are the signs and symptoms of a stye?

An external stye starts as a red area at the base of an eyelash, which over a few days, turns into a yellow spot. An internal stye may make the eyelid look red, swollen and feel uncomfortable. The stye forms a head like a spot, and then bursts so that the pus is released.

How is a stye diagnosed?

No special tests are needed to diagnose a stye. Usually the doctor will look closely at your child's eyes and take a medical history.

How is a stye treated?

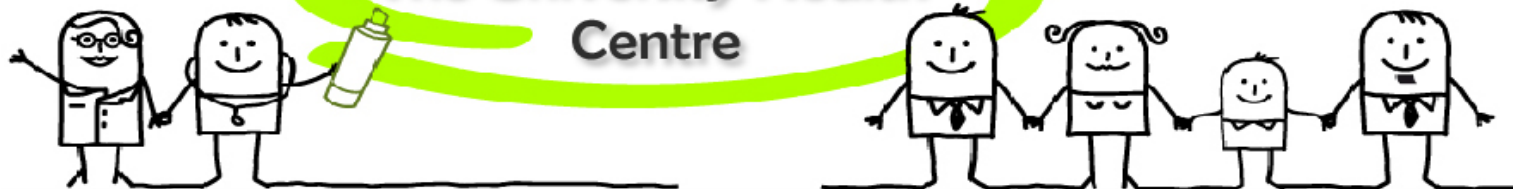
In many cases, the stye will burst in a few days without any treatment. Applying a warm flannel to the eyelid can help reduce any discomfort and may also soften the stye so that it bursts. If the stye is at the base of an eyelash, pulling out that eyelash can release the pressure so the stye drains. Cleaning the area with a cotton bud and cooled, boiled water can also be helpful. Occasionally antibiotic ointment might be prescribed, not to treat the stye itself, but to prevent the infection spreading when it bursts.

Occasionally, a stye can cause conjunctivitis or inflammation of the eye covering. If an infection develops, urgent treatment will be needed as the infection can spread to surrounding tissue.

What happens next?

In the majority of cases, a stye does not cause any problems. Usually, styes do not come back but some people seem to be more prone to them than others. Good hygiene, especially eye and hand hygiene, can reduce the risk of them recurring.

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Perforated Ear Drum

The ear drum is a thin piece of tissue that separates the middle and inner ear from the ear canal. The outer ear (the part you see) collects soundwaves which travel down the ear canal. These soundwaves make the eardrum vibrate. This vibration is transmitted first through the tiny bones (ossicles) in the middle ear, then into the inner ear, where it stimulates nerve endings and sends messages to the brain.

If a hole or tear (perforation) develops in the ear drum, it will not vibrate as usual so sounds are not transmitted to the brain. A hole or tear can also allow debris or fluid to pass through into the middle ear.

What causes a perforated ear drum?

A perforated ear drum can be caused by a variety of things. In children, an ear infection is the most common cause. The infection disturbs the pressure balance either side of the ear drum and fluid may build up in the middle ear. This can cause a hole or tear to form in the ear drum.

They can also be caused by trauma to the ear, such as a powerful hit or very loud noise, or by pushing something like a cotton bud into the ear canal. Perforations can also develop when the air pressure is greater than the pressure inside the middle ear, such as when scuba diving or flying at high altitude.

What are the signs and symptoms of a perforated ear drum?

The main symptom is often reduced hearing in one ear, which may be accompanied by tinnitus (ringing or buzzing sounds in the ear). There may be some oozing from the ear and it may be painful.

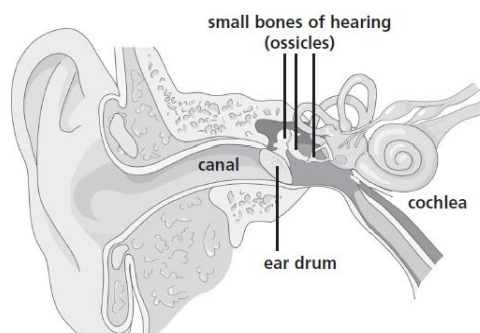
How is a perforated ear drum diagnosed?

A perforated ear drum can be diagnosed by looking closely into the ear using a small torch and magnifier, called an otoscope.

How is a perforated ear drum treated?

A perforated ear drum is treated in an operation (myringoplasty) under general anaesthetic. The surgeon will probably need to make an incision (a cut) behind or in front of the ear to get a good view of the eardrum.

A piece of tissue from near the ear is used to repair any hole in the eardrum. After the operation, your child should keep their ear dry while it heals.





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Nose Bleeds

Nose bleeds are when the small fragile blood vessels in the nose break. This will cause the nose to bleed. It is a common condition, especially in young children. Children who have frequent nosebleeds should be checked for underlying conditions by a doctor.

What causes nose bleeds?

Nosebleeds are pretty common, especially in young children. This is because the blood vessels in the nasal lining are close to the surface and quite fragile. They can rupture easily.

A bump or bang on the nose can often result in a nosebleed. Young children often play very physical games, whether it's rushing around on the playground at nursery or school or tumbling about at home. Bumps on the nose can be pretty common.

If a child picks their nose or blows it too vigorously, this can also start a nosebleed.

Sometimes even a violent sneeze can damage the nasal blood vessels, and trigger a nose bleed.

While nosebleeds are rarely dangerous, very occasionally, a nosebleed can indicate a more serious underlying problem like a head injury.

What are the signs and symptoms of nose bleeds?

If a child has a nosebleed after suffering from a bump on the head, it's important to look carefully for other signs that might indicate an underlying injury.

If the child has any of the following symptoms emergency medical advice should be sought:

- Confusion
- Drowsiness
- nausea and vomiting
- losing fluid through their nose that is thin and watery

How are nose bleeds treated?

If a child has a nose bleed, the recommended course of action is:

- Ask the child to sit down with their head tilted forward.
- Get them to breathe through their mouth.
- Put a bowl under the nose and give them tissues or a cloth.
- Ask them to pinch the front, soft part of their nose for 10 minutes – or pinch it for them if it is a young child.
- If tolerated, apply an ice pack to the affected area
- After 10 minutes, release the pressure – if the bleeding has not stopped, reapply the pressure for up to two further periods of 10 minutes.
- Once the bleeding stops gently clean the area.

Do not tilt the child's head backwards. This will not stop the bleeding and can cause blood to trickle down their throat. This can make them sick and affect their ability to breathe.



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Nose Bleeds

When to ask for medical help about nose bleeds

If the bleeding does not stop after 30 minutes, it's best to take the child down to your local Accident and Emergency department for expert advice.

Frequent nosebleeds

Some children do seem more prone than others to frequent nosebleeds. If a child does seem to suffer from them more than twice a week, it's advisable to see a doctor.

It's important in the first instance to rule out an underlying bleeding disorder.

These are quite rare. The child's doctor will ask whether the child has a history of prolonged bleeding from other areas, for instance when losing a tooth, and about whether they bruise easily.

Bleeding disorders do run in families so if there is a family history of this, the child may be susceptible.

The doctor may recommend blood tests. These may include a full blood count to check that frequent nosebleeds have not caused the child to become anaemic, and also to screen for any underlying bleeding disorders.

Another more common explanation for frequent nosebleeds is that the child may have picked their nose causing blood vessels in the septum, the cartilage which divides the nostrils, to bleed.

The doctor can also check for any signs of infection. If there is any infection, the doctor will probably prescribe a course of ointment with antibiotic and anti-inflammatory properties. This should be applied for up to two weeks.

If the child can resist touching or picking the affected area it should clear up completely within this time.

The doctor may also suggest referring the child to your local ENT (ear, nose and throat) surgeon who would be able to examine the back of the child's nose thoroughly, if necessary, to check for any underlying cause for the problem.

For instance, a child who has a deviated septum is more likely to suffer from nosebleeds. A deviated septum means that the septum is slightly bent, usually as a result of injury (for instance a sports injury or an injury sustained during birth).

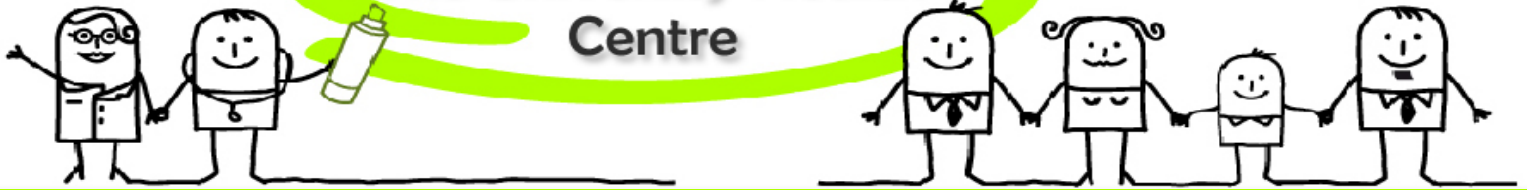
The deviated septum causes abnormal airflow through the nose which causes the lining of the septum to dry out and bleed easily.

There are also some extremely rare conditions linked with persistent nosebleeds.

The ENT doctor would also be able to discuss further treatment options.

One possibility is cauterisation which involves touching the affected area gently with silver nitrate which seals off the bleeding blood vessel by way of a chemical reaction and means it should bleed less.

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Warts

What are they?

A wart is a common contagious growth on the skin. Warts can occur singly or in clusters. Only the top layer of skin is affected. The black dots you often see are capillaries (tiny blood vessels) that have become clotted due to the rapid skin growth that the wart virus causes.

Warts are caused by the human papilloma virus (HPV). There are over 60 different types of HPV – warts are usually caused by types 1-4.

They most often appear on the hands, but any area of the body can be affected. They are generally harmless.

Treatment options

There are a variety of different preparations that will be available without prescription at your local pharmacy. These range from creams and gels to paints and medicated plasters. They usually contain salicylic acid as the main active ingredient.

Usually you need to rub the surface of the wart until it's flat with an emery board or pumice stone, then apply a drop of paint to the centre. This needs to be repeated once a day until the wart disappears. You'll need to be persistent – this can take weeks, even months.

But before you invest in one of these preparations, check with your child's GP first.

Prevent them spreading

In the meantime, there are things you can do to help prevent the warts from spreading.

Encourage your child not to pick or scratch their warts, as this can spread the infection to other parts of the body. It's also important that your child has their own towel and flannel to avoid spreading the virus to other members of the family.





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Vitamin D Deficiency

Vitamin D is essential for strong bones and teeth as it helps in the absorption of calcium in the diet from the intestinal tract.

A lack of vitamin D can lead to rickets. This is a rare disease that softens and weakens the bones. It can lead to deformities such as bowed legs and curvature of the spine.

What causes vitamin D deficiency?

Vitamin D deficiency can happen if a person does not get enough vitamin D in their diet.

Most people get some vitamin D from eating a healthy and balanced diet. A person does not need to have vitamin D everyday because it is a fat-soluble vitamin which the body will store.

Skin can also make vitamin D when exposed to the sun and the combination of diet and sunlight meets the requirements for this vitamin.

However, if a child is out in the sun make sure they are protected and don't get burnt. It is recommended that 10-15 minutes exposure of the lower arms after 3pm, between April and September, will make enough vitamin D without damaging the skin.

What are the signs and symptoms of vitamin D deficiency?

If a child is lacking in vitamin D they may notice aches in their legs.

A long-term deficiency can lead to softening of the bones, causing backache, muscle weakness, bone pain and even fractures.

How is vitamin D deficiency normally diagnosed?

A child suspected of having a vitamin D deficiency, should consult a doctor.

Taking high doses of vitamin D for long periods of time can be harmful, so it is important that you speak to a medical professional before giving a child any supplements.

How is vitamin D deficiency normally treated?

The small amounts of vitamin D a person needs each day are usually provided by a balanced diet and normal exposure to sunlight.

Good sources of vitamin D include oily fish (like sardines, salmon, herring and tuna), liver, milk and dairy products and egg yolks. Vitamin D is also made by the sun's rays when they act on chemicals naturally present in the skin.

Most people do not need to take vitamin D supplements.

However, if it is necessary to take a supplement, the recommended vitamin supplements for children aged six months to five years are the Healthy Start Vitamin Drops which contain 7.5micrograms of vitamin D.



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Whooping Cough

This page explains about the causes, symptoms and treatment of whooping cough.

What is whooping cough?

Whooping cough, also known as pertussis, is an infection of the lining of the respiratory tract.

Mainly affecting babies and young children, it's called whooping cough because of the characteristic 'whoop' sound that is made by a sharp intake of breath following a bout of coughing.

Sixty years ago, whooping cough was a major public health concern with 100,000 reported cases in England and Wales. Today, thanks to the introduction of a comprehensive immunisation programme, few children suffer from the condition.

Despite the dramatic fall in numbers, it is still possible to get whooping cough. It is very infectious, and there will always be children who are susceptible because they are too young for vaccinations.

Around half the babies who get it will need admitting to hospital for treatment, and in rare cases it can even prove fatal.

So it is worth being aware of the signs and symptoms of whooping cough, and knowing how to stop the disease from spreading.

What causes whooping cough?

It is caused by the *bordetella pertussis* bacterium, which is carried in droplets of moisture in the air. If your child inhales these bacteria, they multiply inside the respiratory tract causing a thick layer of mucus to develop.

How is it passed on?

Whooping cough is highly infectious – especially during the first stages of the condition. When someone with whooping cough coughs or sneezes, they send out hundreds of infected droplets into the air. If these droplets are breathed in by someone else, the bacterium will infect their airways.

What are the symptoms?

The first symptoms tend to be fairly mild, appearing around seven to ten days after your child has been infected with the bacterium. Your child may develop a cold, with a runny nose, watering eyes, sneezing and a dry cough.

After about a week, this progresses to bouts of coughing known as 'paroxysms'. The coughing is usually continuous with up to 30-40 coughs without taking a breath in.

Your child might cough intensely, bringing up thick mucus, which is followed by a 'whoop' sound as your child inhales. Younger children and babies may not have a whoop and may instead vomit, or may even stop breathing.

In older children, the coughing may be less intense and also might not include a 'whoop' – in fact, you may not even realise your child has whooping cough.



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Whooping Cough

Making a diagnosis

See your GP, who will usually be able to diagnose whooping cough from your description of your child's symptoms and from listening to your child's cough. The diagnosis can be confirmed by a throat swab – the bacteria responsible can be identified in the lab.

Whooping cough is a notifiable disease. This means your GP must report each case to the local health authorities, so the spread of the disease can be monitored. It's best to call the surgery beforehand to warn them your child might have whooping cough, as there may be a separate waiting area for people with infectious diseases.

Treatment

Treatment consists of antibiotics, although in whooping cough antibiotics have only shown to be useful if they are given before the cough has commenced. In most cases, once the coughing has started, antibiotics will not be of benefit in terms of boosting your child's recovery. However, they may reduce the infectiousness.

Babies and pre-school age children tend to be most severely affected by whooping cough, and are at highest risk of complications. Around half of all babies need admitting to hospital for treatment. In hospital, your child will probably receive antibiotics intravenously (directly into a vein) and if breathing is proving difficult, your child may also be given steroids to reduce inflammation of their airways.

In older children, whooping cough can usually be treated at home. Your GP may prescribe antibiotics to prevent the infection spreading further. However, if it isn't diagnosed until the later stages of the infection, your child may not need antibiotics because by this time the bacteria that caused the condition will have gone. Your GP will advise you on caring for your child at home, including ensuring your child rests and has plenty of fluids.

Complications

Babies and young children are at risk of several complications including pneumonia, breathing difficulty, and dehydration. Around one in every 500 babies under the age of 12 months will die from the condition.

Older children are at much less risk from complications. A persistent cough is the most common complication in this age group.

Preventing the disease from spreading

Your child should stay home from school or nursery for five to seven days if they are receiving antibiotics, or four weeks if they are not receiving medication.

Make sure you dispose of any tissues your child has used immediately, and wash your hands if you have touched them yourself.

Whooping cough is now rare in the UK because of immunisation. Children are vaccinated against whooping cough at two, three and four months, and again before they start school at between three and five years of age. The whooping cough vaccine is given as part of the DtaP/IPV/Hib vaccine, which also protects against diphtheria, tetanus, polio and Hib (haemophilus influenzae type b).

It's important for children to be immunised in order to ensure low levels of the disease circulating in the community – thus reducing the risk that very young babies, who have not yet been immunised and who are at greatest risk of suffering from the condition in its most severe form, are protected.



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Croup

Croup is a childhood condition that affects the windpipe (trachea), the airways to the lungs (the bronchi) and the voice box (larynx).

A child with croup has a distinctive barking cough and will make a harsh sound, known as stridor, when they breathe in.

A blocked airway can also cause a hoarse voice and breathing difficulties.

Croup can usually be diagnosed by a GP and treated at home. However, if your child's symptoms are severe and they are finding it difficult to breathe, take them to the nearest hospital's accident and emergency (A&E) department.

Why does Croup happen?

Commonly, croup is caused by a viral infection. In 80% of cases, the parainfluenza virus is responsible.

In some cases, croup may be caused by an allergic reaction.

There are two types of croup:

- viral croup (laryngotracheitis), which develops over several days and is caused by an infection
- spasmodic croup, which involves repeated, short-lasting episodes of croup that can be caused by an allergic reaction

The same treatments are recommended for both viral croup and spasmodic croup.

Who is affected?

Croup usually affects young children aged between six months and three years, with most cases occurring in two-year-olds. However, croup can sometimes develop in older children up to 15 years of age.

About three in 100 children will suffer from croup every year. The condition is more common during the late autumn and early winter months.

It tends to affect more boys than girls.

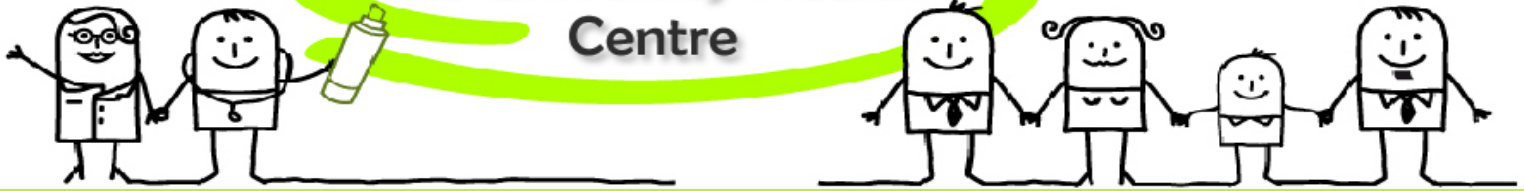
It is occasionally possible for a child to experience croup more than once during childhood.

Treating Croup

Most cases of croup are mild and get better on their own, without the need for treatment. Sitting your child upright and comforting them if they are distressed is important, because crying may make symptoms worse. Your child should also drink plenty of fluids to prevent dehydration.

More severe cases of croup may need to be treated with steroids to reduce the swelling in the throat.

If your child has breathing problems, hospital treatment, such as adrenaline and an oxygen mask may be required.



Croup

Complications

Around 60% of croup cases clear up within 48 hours. However, in some cases symptoms can last for up to two weeks.

It is very rare for a child to die from croup.

There are a number of conditions that can follow croup, such as pneumonia and middle ear infection.

Preventing Croup

Croup is spread in a similar way to the common cold, so it is difficult to prevent.

Good hygiene is the main defence against croup, such as regularly washing hands and cleaning surfaces.

A number of your child's routine vaccinations also protect against some of the infections that can cause croup. These include:

- MMR - protection from measles, mumps and rubella
- DTaP/IPV/Hib - protection from diphtheria, tetanus, whooping cough, polio and Haemophilus influenzae type b





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Slapped Cheek Disease

Slapped cheek disease is an infectious disease that mainly affects children between the ages of six and ten years old. It is also called Fifth Disease because it used to be the fifth most common childhood infection.

Slapped cheek disease is caused by a virus and often occurs in outbreaks at nursery and school. It is spread by droplets, which are released into the air by coughing and sneezing.

The incubation period between catching the virus and showing any symptoms is one to two weeks. Slapped cheek disease often occurs in outbreaks because children can be infectious for up to two weeks before any signs appear. It is no longer infectious once the rash has appeared. Once your child has had slapped cheek disease, he or she will not catch it again.

What are the symptoms of slapped cheek disease?

Your child may have a runny nose, rash, aches and pains, and a high temperature. To begin with, the rash appears on the cheeks making them look red - which is why it is called slapped cheek disease.

A few days later, the rash will appear on your child's chest, arms and legs. The rash may fade a bit and then come back if your child gets hot after a bath, is in direct sunlight or runs about.

Some people can have slapped cheek disease and not have any symptoms, but they will still be able to pass the virus on to other people.

If your child has a chronic illness, particularly affecting his or her blood, you should see your GP if symptoms occur.

How is it treated?

In most children, slapped cheek disease is a mild illness, which gets better in a few days without any treatment. As a virus causes slapped cheek disease, antibiotics won't help to treat it.

If your child has aches and pains, you can give him or her paracetamol according to the instructions on the bottle. Do not give aspirin, or medications containing aspirin, to children under sixteen years old.

You should encourage your child to drink plenty of fluids to reduce the chance of dehydration due to the high temperature.

The spread of slapped cheek disease can be reduced by frequent hand washing, putting your hand over your mouth when coughing and sneezing into a handkerchief or tissue.

What is the outlook for children with slapped cheek disease?

The vast majority of children recover completely within a few days, with no lasting effects.

If a pregnant woman comes into contact with or develops slapped cheek disease, she should see her GP as the disease can cause miscarriage.



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Hand, Foot and Mouth Disease

Hand, foot and mouth disease is an infectious disease that can occur at any age, although it is more common in young children. It is not the same as the foot and mouth disease that affects cows, sheep and pigs.

What is hand, foot and mouth disease?

Hand, foot and mouth disease is caused by a virus. It is spread through direct contact with bodily fluids such as mucus, and by droplets released into the air by coughing and sneezing.

The incubation period between catching the virus and showing any symptoms is three to five days. A child with hand, foot and mouth disease remains infectious for about seven days after the symptoms first occur.

What are the symptoms of hand, foot and mouth disease?

Children with hand, foot and mouth disease develop a rash on the palms of their hands and soles of their feet. This rash is usually red and lumpy and may blister. They also get sore areas inside their mouth, which can develop into ulcers.

Children often develop a high temperature, sore throat and generally do not feel well.

How is it treated?

In most children, hand, foot and mouth disease is a mild illness that gets better in a few days, without any treatment. As a virus causes hand, foot and mouth disease, antibiotics will not be any help in treating it.

If your child has aches and pain, or the mouth ulcers are sore, you can give them paracetamol according to the instructions on the bottle. Do not give aspirin, or medications containing aspirin, to children under 16 years old. You should encourage your child to drink plenty of fluids to reduce the chance of dehydration due to the high temperature.

The spread of hand, foot and mouth disease can be reduced by frequent handwashing, putting your hand over your mouth when coughing and sneezing into a handkerchief or tissue.

What is the outlook for children with hand, foot and mouth disease?

The vast majority of children recover completely within a few days, with no lasting effects.



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Febrile Convulsions

What are febrile convulsions?

A febrile convulsion is basically a seizure that can happen when a young child develops a high temperature. They are quite common – around one in 50 children will have had one by the time they reach their age of five.

Febrile convulsions are understandably very worrying for parents. It might look as though your child is having an epileptic fit. However convulsions of this type are only related to fever, which is not typical of epilepsy. Plus they won't cause your child any lasting harm.

It's really important for parents and carers to know what to do if a child does have a febrile convulsion.

Who can have them?

Children between the age of six months and five years can be affected, although most are at the younger end of the age range.

There are also genetic factors. A child is four times more likely to have a febrile convulsion if either parent was affected when young. Children of parents with epilepsy are also at a slightly higher risk.

For some reason, boys are more likely to be affected than girls.

What's the cause?

A convulsion of this kind is caused by a rapid rise in a child's temperature usually at the start of a bacterial or viral illness. A child's temperature may have reached 38.5C or 39C but it is thought that the rate of rise, rather than the final temperature, is more important.

The most commonly associated illnesses are upper respiratory tract infections, otitis media (infection of the middle ear), bronchopneumonia and gastrointestinal infection. Whooping cough, measles and meningitis were important causes when they were more common illnesses. In about 90 per cent of cases a viral infection is the cause of the fever.

What are the signs and symptoms of a febrile convulsion?

During a febrile convulsion, a child loses consciousness and becomes either stiff or floppy. They may stop breathing briefly and their eyes can roll back. A child may be irritable or sleepy after coming round.

What should you do?

Firstly, try to keep calm. Bear in mind that a febrile convulsion is unlikely to cause any harm or damage. Hold the child in your arms, or lie the child down on a soft surface like a cot or bed with their head below their body if possible. Don't restrain the child, but take off any warm clothing and loosen anything tight. If the child is sucking a dummy, gently remove it. Don't try to give anything to eat or drink during the convulsion. The child may lose consciousness for a minute or two, but most will come round quickly without any help. Stay with the child throughout the convulsion, and when it's over call the doctor (unless it has happened before and the doctor has advised that you do not need to call). Once the child is fully conscious, try giving infant liquid paracetamol to reduce the child's temperature. If the child wants to go to sleep, prop them on their side using a rolled up blanket so the child doesn't roll onto their back. You may have been given further advice regarding medication if the child has had a previous febrile convulsion.



The University Health Centre

Febrile Convulsions

When to seek emergency help

If the child is not breathing normally after a convulsion, or if it lasts five minutes or more, you need to get emergency help by dialling 999.

Are any investigations needed?

If a child is under the age of one, it is likely your doctor will refer you to your local hospital to investigate the cause of the fever. A blood test and urine and stool samples may be needed to identify the virus or bacteria responsible.

Sometimes, a lumbar puncture might be recommended to exclude meningitis. It is very unlikely that a child with meningitis would present having had a febrile convulsion, but meningitis can be difficult to pick up in babies and it is important to rule it out.

If a child is over the age of one, your doctor may only refer you to a consultant if they are not convinced that the cause of your child's infection is a virus or cold.

Can febrile convulsions be prevented?

As a convulsion of this kind is caused by a rapid rise in temperature usually at the start of a bacterial or viral illness, the best form of prevention is to keep your child's temperature down. Remove any warm clothing and give liquid paracetamol.

Unfortunately, other than this, there aren't any really effective tactics you can use.

While anti-convulsant medication is useful for children who suffer from recurrent convulsions not associated with fever (epilepsy), there is little evidence to suggest that such medication will prevent recurrent febrile convulsions, and the possibility of side effects tends to outweigh the benefits.

What are the chances of it happening again?

If a child is over the age of one when they have their first febrile convulsion, they have around a one in three chance of having more. If it happens before the age of one though, the chance of having another rises to one in two.

The length of time that the convulsion lasts is also important. If a first convulsion lasts a long time – rarely, this can be up to 15 minutes – further convulsions are more likely in the future.

But the good news is that around six or seven out of ten children who have one febrile convulsion never have another.

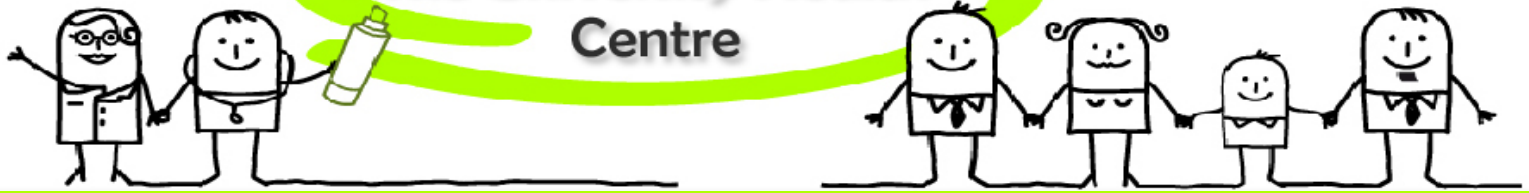
Are there any associated risks?

Children who have long febrile convulsions have a slightly higher risk of developing epilepsy, although the risk is small. For a very small minority, a febrile convulsion may be a sign of an underlying neurological problem.

Looking forward

The vast majority of children, including those who have had several febrile convulsions, will stop having them well before they start school.

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Candida

Candida is a type of yeast (a type of fungus). Some types are harmless and some types cause infections. Candida infections range from the superficial and common – such as candidiasis or thrush – to systemic and potentially life-threatening diseases which are usually confined to severely immunocompromised persons, such as cancer, transplant, and AIDS patients.

What causes candida?

There are more than 20 species of candida, the most common being candida albicans. These fungi live on all surfaces of our bodies. Under certain conditions, they can become so numerous they cause infections, particularly in warm and moist areas. Types of infections caused by candida include vaginal yeast infections, thrush (infection of tissues of the oral cavity), skin and nappy rash, and nailbed infections.

Vaginal yeast infection, which is the most common form of vaginitis, is often referred to as vaginal candidiasis.

In adults, oral yeast infections become more common with increased age. Adults can also have yeast infections around dentures, in skin folds under the breast and lower abdomen, nailbeds, and beneath other skin folds.

The most common forms of candida infections to affect children include nappy rash and oral thrush, although young girls can also suffer from vaginal candidiasis.

In people who have a weakened immune system because of cancer treatments, steroids, or diseases such as AIDS, candidal infections can occur throughout the entire body and can be life-threatening.

The blood, brain, eye, kidney, and heart are most frequently affected, but candida also can grow in the lungs, liver, and spleen. Candida is a leading cause of esophagitis (infection in the swallowing tube) in people with AIDS.

What are the signs and symptoms of candida?

The signs and symptoms of a candidal infection can vary depending on the location of the infection. Common symptoms of a vaginal yeast infection include a white discharge that is thick and often described as having a cottage cheese appearance.

The infection can also cause itching and irritation inside the vagina and surrounding the outer tissues. On occasion there may be pain with sexual intercourse or burning with urination (pee).

Oral candidiasis is called thrush. Typical symptoms include:

- thick, white lacy patches on top of a red base can form on the tongue, palate, or elsewhere inside the mouth
- red tongue
- pain
- difficulty eating

Superficial candidal skin infections (and nappy rash) appear as a red flat rash with sharp scalloped edges. There are usually smaller patches of similar appearing rash nearby, known as 'satellite lesions'. These rashes may cause itching or pain.

In people with weakened immune systems, candidal infections can affect various internal organs and cause pain or dysfunction of the organ.



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Candida

If candida gets into the bloodstream, the person may become sick with or without fever. If the infection spreads to the brain, they may have acute changes in mental function or behaviour.

In people with weakened immune systems, candidal infections can affect various internal organs and cause pain or dysfunction of the organ.

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How is Candida normally diagnosed?

For healthy people (those without weakened immune systems), most GPs can diagnose a candidal infection by asking about symptoms and on physical examination of the area affected.

Occasionally, if the infection won't go away or involves the entire body, more extensive tests may need to be performed.

Oral thrush is diagnosed with an examination of the mouth and nappy rash diagnosed with an examination of the skin around the anus.

If there is any confusion about the diagnosis, the GP may obtain a small scraping of the area to be examined in a laboratory.

In people with weakened immune systems, oral, vaginal, and skin candidal infections can also usually be diagnosed by sight.

How is Candida normally treated?

Most candidal infections can be treated at home with over-the-counter or prescription medications and can clear within a week. If it is a first candidal infection, or if the infection is in a child, the advice of a GP should be sought.

Vaginal thrush can be treated with antifungal cream, tablets and/or pessaries (which are inserted inside the vagina). Usually a child can be treated with cream alone. Ask a pharmacist for advice on which creams are available.

Skin rashes and nappy rash can also be treated with cream alone. For nappy rashes, frequent nappy changes and the use of barrier creams will speed recovery.

Oral thrush is usually treated with a mouthwash containing an antifungal agent called nystatin.

If symptoms are recurrent or continue for more than one week, a GP should be consulted.

If a child has a weakened immune system due to any medical treatment for an underlying illness, you should speak to a doctor about any candidal infection. In some cases the infection can affect other parts of their body making them very ill. A doctor will want to monitor their treatment.



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Glue Ear Information

The ear consists of three parts, the outer ear, the middle ear and the inner ear. Sound waves enter the ear canal and cause the eardrum to vibrate. The sound then passes through the middle ear via the three small bones of hearing (ossicles) on to the inner ear, which is filled with fluid.

The movement of the fluid in the cochlea stimulates the hair cells inside it to trigger a nerve impulse, which is carried to the brain by the auditory nerve. The brain then interprets these nerve impulses as sound. Glue ear occurs when a sticky fluid (glue) builds up inside the ear. This can affect hearing because the parts of the middle ear cannot move freely, although the level of hearing loss is mild to moderate, rather than severe or profound.

Some children have 'recurrent' glue ear which means it returns after treatment over a period of some months or years. This can lead to problems in speech and language development, due to these mild to moderate hearing problems.

Some children develop glue ear after a cold so it can be more common during the winter months. It is also more common in boys than girls, but at present, we do not know why.

It is also called 'otitis media with effusion', which means the middle ear contains fluid.

What causes glue ear and how is it diagnosed?

We are not exactly sure what causes glue ear, but doctors believe it is connected to the Eustacian tube not functioning properly. The Eustacian tube usually keeps the air pressure on both sides of the eardrum equal.

If the tube is blocked, this causes the air pressure inside the middle ear to drop. Fluid drains from the surrounding tissue to fill up the middle ear. With time, this fluid becomes sticky and stops the eardrum and ossicles vibrating as they should.

The doctor will start by looking inside your child's ear to see if there is any visible blockage of the ear canals and to check the appearance of the eardrum. This will be followed by some hearing tests to see whether there is any hearing loss and if so, whether it is caused by glue ear. One of these tests (tympanometry) tests the mobility of the eardrum and can give an indication of whether glue is present.

Your child may already have been diagnosed by the time you visit Great Ormond Street Hospital (GOSH) or the audiology doctors may diagnose it here.

How can glue ear be treated?

If a child has an isolated case of glue ear, it may clear up by itself. However, if it persists and starts to affect their speech, language or schooling, the doctor may suggest treatment using grommets or T-tubes, which are inserted during an operation.

What are grommets and T-tubes and what does the operation to insert them involve?

Grommets or T-tubes are tiny tubes, which are inserted into the eardrum. They allow air to pass through the eardrum, which keeps the air pressure on either side equal. The surgeon makes a tiny hole in the eardrum and inserts the grommet or T-tube into the hole. It usually stays in place for six to twelve months and then falls out. This is normal and will not affect your child.



The University Health Centre

Glue Ear Information

Are there any risks?

Every operation carries some risk of infection and bleeding, but as the hole in the eardrum is tiny, this risk is very much reduced. Your child will have a course of antibiotic eardrops to reduce the risk of infection further.

Around one in every 100 children may develop a perforated eardrum. If this persists it can be repaired later.

Every anaesthetic carries a risk, but this is very small. Modern anaesthetics are very safe and your child's anaesthetist is a very experienced doctor who is trained to deal with any complications.

Are there any alternatives?

For persistent glue ear, grommets and T-tubes are the treatment of choice. Medical treatment with decongestants or steroids has not been shown to be particularly effective unless there are signs of infection or allergy. Antibiotics can help but only in the short term.

What happens before the operation?

You will already have received information about how to prepare your child for the operation in your admission letter. The doctors will explain about the operation in more detail, discuss any worries you may have and ask you to give permission for the surgery by signing a consent form.

Another doctor will also visit you to explain about the anaesthetic. If your child has any medical problems, particularly allergies, please tell the doctors about these. Please also bring in any medicines your child is currently taking.

What happens afterwards?

After the operation, your child will return to the ward to fully wake up from the anaesthetic. Once he or she feels comfortable and has had a drink, you will be able to take your child home.

Going home

Your child's ear may ooze or bleed a little for a day or two after the operation. This is normal and should recover within a few days. You should clean any discharge from the outer ear, but do not attempt to clean inside the ear.

Your child may have mild earache, which is quite common. You should give him or her pain relief medicines such as paracetamol or ibuprofen according to the instructions on the bottle. Your child should avoid water getting into his or her ear until the follow up outpatient appointment, six weeks or so after the operation. You will need to take care during hair washing, bathing and showering. It can help to put some cotton wool with Vaseline® on it into your child's outer ear. Do not insert it into the ear canal itself, as this could prove difficult to remove.

The doctor may prescribe eardrops for your child so please give the complete course according to the instructions on the bottle. Further instructions about giving eardrops are available on an information sheet from the Pharmacy or in a podcast available on our website.

Your child will need to come back to the hospital for a check up appointment six weeks after the operation. We will send you details of this appointment in the post.



The University Health Centre

Tummy Bugs

This explains about gastroenteritis (tummy bugs), what they are and how to prevent them spreading.

What are tummy bugs?

They are very common illnesses in children, which can be spread by bacteria or by a virus. They cause diarrhoea (watery poo) and vomiting, and most children have several bouts during childhood.

Are they dangerous?

For most children, a tummy bug is not serious, but a child can become dehydrated very quickly which can be serious. Dehydration happens when your child loses too much fluid from their body through diarrhoea and vomiting.

Who is at risk of developing a tummy bug?

It is a very common illness, which most people develop at some point in their lifetime. It is almost impossible to avoid contact with it, especially when your child is at nursery or school, where it tends to occur in outbreaks.

How is it diagnosed?

In mild cases, you probably will not need to visit your family doctor (GP). If your child has an attack which lasts longer than 24 hours or you think it was caused by a particular food, you should ring your GP for advice.

It is unlikely that the particular bacteria or virus causing the attack will be identified. If at any time your child becomes listless, floppy and groggy, you should call your GP immediately, or go to your local Accident and Emergency (A&E) department as these are signs of dehydration.

What are the symptoms of a tummy bug?

The main symptoms are diarrhoea and/or vomiting. Your child may also have a high temperature and tummy pains.

How is it spread?

Tummy bugs caused by a virus are spread by droplets expelled during vomiting or by coming into contact with vomit or poo.

Tummy bugs can also be caused by bacteria and can be spread by eating and drinking contaminated water or undercooked food, or by poor hygiene, like not washing your hands after going to the toilet or before eating.

It can also be passed by direct contact from person to person or through poor hygiene. You should contact your GP as the bug may be caused by food poisoning, and they will know if other people have fallen ill after eating the same food.

If this is the case, then the Environmental Health Department for your area will need to be told and you may be contacted for more information.



The University Health Centre

Tummy Bugs

How is it treated?

You will not usually need medicines to treat tummy bugs. The most important thing to do is to replace the fluid your child's body is losing through the diarrhoea and vomiting. In most cases, it is better that the germ is 'flushed out' of your child's system.

Encourage your child to drink clear fluids or try rehydrating sachets, which are available from chemists. If your child does not like the taste of the sachets, try to encourage him or her to drink 'flat' lemonade or cola. Both the lemonade and cola contain most of the ingredients needed to boost your child's fluid levels.

Your child is less likely to be sick if you encourage him or her to drink small amounts frequently rather than a large drink.

What is the outlook?

Your child is unlikely to suffer any lasting effects from a tummy bug, if any dehydration is treated in time. You can reduce the likelihood of your child catching another tummy bug by teaching them to wash their hands thoroughly before eating and after visiting the toilet.



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Conjunctivitis

Conjunctivitis is a very common eye infection. It involves the inflammation (swelling) of the conjunctiva which is the thin delicate membrane that covers the whites of the eyes and lines the inside of the eyelids.

Most children will suffer from conjunctivitis at least once while they are growing up. It isn't usually serious - in most cases, it clears up quickly with the help of eye drops prescribed by the doctor.

What causes conjunctivitis?

Conjunctivitis can either be caused by a bacterial infection or by an allergy.

Newborn babies are especially prone to conjunctivitis as a result of bacterial infection in the birth canal.

In older children, the cause is usually a virus, a bacteria or an allergy.

Viral or bacterial conjunctivitis is infectious. In other words it can pass from one eye to the other, and from one person to another. This might happen by sharing towels.

Allergic conjunctivitis is not infectious – it cannot be passed from one person to another. It is common in people who have hayfever and asthma, and is caused by pollen and dust that irritate the eyes.

A child may also suffer from conjunctivitis in response to:

- certain medicines or foods
- certain chemicals, such as those used in swimming pools
- smoke or fumes

These types of conjunctivitis are rare.

What are the signs and symptoms of Conjunctivitis?

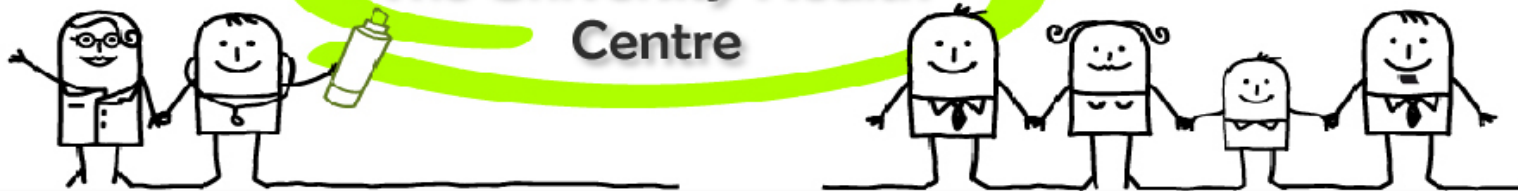
A child is likely to have red, itchy eyes and sticky eyelids. Their eyes will be watering more than usual, and may have a discharge. The discharge might be more noticeable in the morning – for example, they may have a crusting on their eyelid when they first wake up.

If it is infectious conjunctivitis and caused by bacteria, the discharge will be yellow. If it is allergic conjunctivitis, the discharge is watery and clear. Viral conjunctivitis causes a sticky clear discharge and is almost always accompanied by flu-like symptoms.

An older child may complain that their eye feels sore, that they have a 'gritty' feeling in their eye, or that their vision is blurred.

Infectious conjunctivitis usually starts in one eye then spreads to the other. Allergic conjunctivitis usually starts in both eyes at the same time.

The University Health Centre



Conjunctivitis

How is conjunctivitis normally diagnosed and treated?

A child with symptoms of conjunctivitis should visit the doctor. A GP may take a swab (sample) of the discharge from the eye that can be tested for any bacteria or virus.

The type of treatment the child will need will depend on the type of conjunctivitis they have:

- If the child's doctor thinks the infection is caused by bacteria, they will recommend a course of antibiotic eye drops.
- If it's a viral infection, they will recommend a different type of eye drops that reduce inflammation.
- If the child's conjunctivitis is caused by an allergic reaction, the doctor will probably suggest antihistamine medication to soothe the irritation.

Eye drops won't be painful but might cause a slight stinging sensation (like putting water in the eyes).

A child's symptoms can also be relieved by gently cleaning away any crusty discharge with clean cotton wool soaked in boiled, cooled water. Start in the corner of the eye, and gently wipe to the outer eye. Use a separate piece of cotton wool for each eye to prevent spreading the infection.

Make sure the child does not share towels or flannels with anyone else in the family to contain the infection.

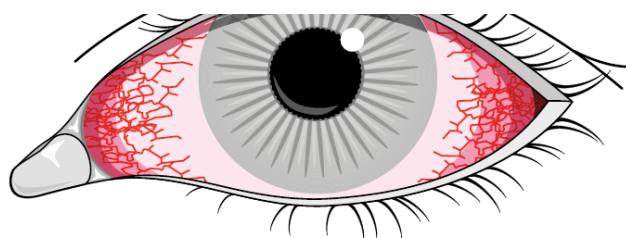
What happens next?

If the child's conjunctivitis is caused by an infection, it can be prevented from spreading by making sure the child:

- washes their hands frequently
- tries not to touch or rub their eyes
- doesn't use towels that are shared with other people.

Conjunctivitis is quite common and shouldn't cause any damage to a child's eyes or any long-term vision problems.

But, if their symptoms last longer than one week, despite using eye drops, it's best to go back to the doctor. They will refer the child to a paediatric ophthalmologist.





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Constipation

Constipation is a common condition that affects people of all ages. It can mean that you are not passing stools (poo) regularly, or you are unable to completely empty your bowels.

Constipation can also cause your stools to be hard, lumpy, large or small.

The severity of constipation varies from person to person. Many people only experience constipation for a short time, but for others, constipation can be a chronic (long-term) condition that causes significant pain and discomfort and affects quality of life.

What causes Constipation?

It's often difficult to identify the cause. However, there are a number of things that increase the risk of constipation, including:

- not eating enough fibre, such as fruit, vegetables and cereals
- a change in your routine or lifestyle, such as a change in your eating habits
- ignoring the urge to pass stools
- side effects of certain medication
- not drinking enough fluids
- anxiety or depression

In children, poor diet, fear about using the toilet and poor toilet training can all be responsible.

Should I see my GP?

You may be able to help treat constipation yourself by making simple changes to your diet and lifestyle. If these changes do not help, see your GP.

You should also speak to your GP if you suspect your child might be constipated.

Treating Constipation

An oral laxative (medication to help you empty your bowels) is usually prescribed to treat constipation.

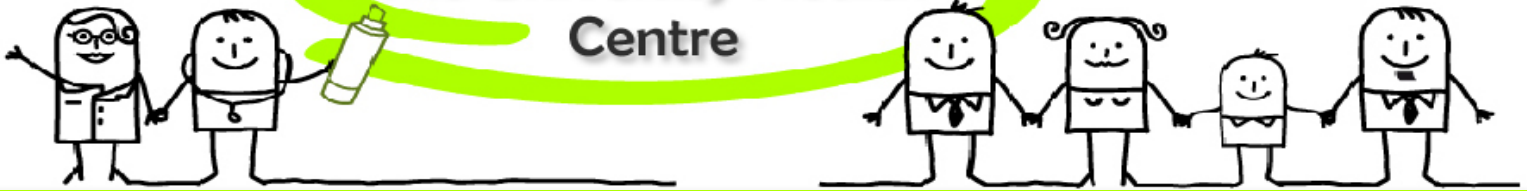
Treatment for constipation is effective, although in some cases it can take several months before a regular bowel pattern is re-established.

Preventing Constipation

Making diet and lifestyle changes, such as eating high-fibre foods, drinking plenty of fluids and regularly exercising will help to prevent or ease your constipation.

It may also help to give yourself enough time and privacy to pass stools comfortably and never ignore the urge to go to the toilet.

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Constipation

Complications

For most people constipation rarely causes any complications, but people with long-term constipation can develop:

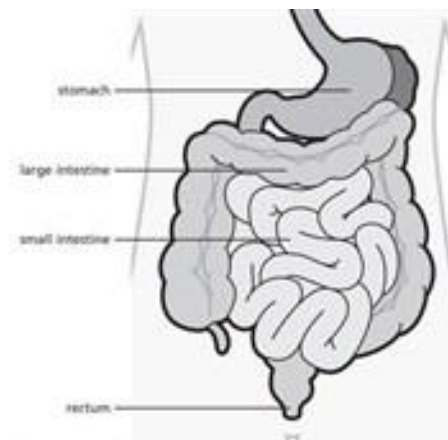
- haemorrhoids (piles)
- faecal impaction (where dry, hard stools collect in the rectum)
- faecal incontinence (the leakage of liquid stools)

Who is affected?

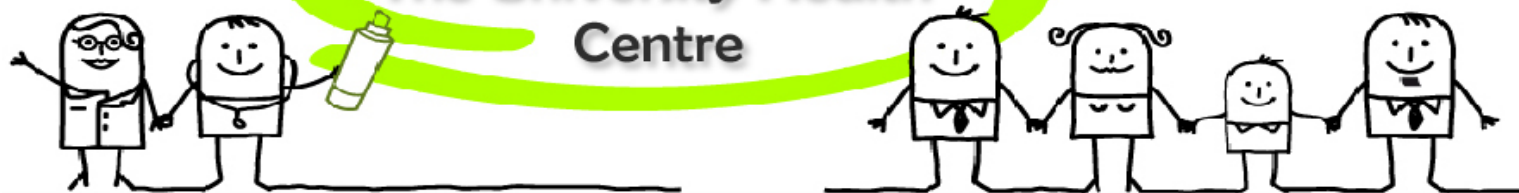
Constipation can occur in babies, children and adults, and affects twice as many women as men.

Older people are five times more likely than younger adults to have constipation, usually because of diet, lack of exercise, use of medication and poor bowel habits.

Approximately 40% of pregnant women experience constipation during their pregnancy.



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Impetigo

Impetigo is a contagious skin infection. It's most often seen in children between the ages of two and four but anyone can get it, including adults.

As it is contagious it's a good idea to seek prompt treatment for the child and take precautions to avoid it spreading to other people.

What causes impetigo?

Impetigo is usually caused by one of two bacterial organisms – staphylococcus aureus and streptococcus pyogenes (group A strep).

These bacteria are naturally present in the environment, sometimes colonising in the noses of healthy children and adults.

If these bacteria enter the body through a point where the skin is broken, for instance at the site of a cut or in the area of a skin condition such as atopic eczema or severe nappy rash, they can cause problems.

It's thought that young children are more vulnerable to the infection than adults because their immune systems are not yet fully developed.

What are the signs and symptoms of impetigo?

Impetigo causes lesions, which most often start around the mouth and nose. The skin reddens before small crops of blisters appear. The blisters then burst, leaving raw, moist sores which crust over to form honey coloured plaques or scabs.

The sores are not usually painful, although they can be itchy. They usually heal without scarring.

How easily can impetigo spread from one person to another?

Contact with fluid that emerges from the blisters helps to spread the bacteria. It can spread to the arms and legs, especially if the sores feel itchy and the child scratches.

If the child has a cold or runny nose, it's a good idea to put a little petroleum jelly over the area around and just below the nose to protect it. This stops constant wiping from breaking the skin.

The infection is spread by close contact. If the child goes to nursery or school, it's best to keep them away until the infection has cleared up.

Most children are no longer contagious once their sores have dried and healed.

What else will help prevent impetigo spreading?

It is possible for the infection to spread to other parts of the body by means of fingers, clothing and towels. It's important to:

- Make sure the child washes their hands regularly and thoroughly, and doesn't touch the affected area of skin if possible.
- Keep the child's bedding, towels and flannels separate from the rest of the family's.
- Bathe the child every day, and keep their nails short and clean. This means the infection will be less likely to spread through scratching.
- Keep the child away from newborn babies until the sores have crusted over.

To prevent impetigo returning in the future, it's a good idea to keep all cuts and scratches scrupulously clean and make sure any condition involving broken skin, such as eczema, is treated quickly.



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Impetigo

How is impetigo normally diagnosed?

If you suspect a child has impetigo, it's important to see their doctor. They should be able to make a firm diagnosis by examining the child's skin.

How is impetigo treated?

The doctor may prescribe antibiotic ointment to put on the sores. In some cases, if the infection is very widespread, an oral antibiotic may be prescribed too.

You'll need to follow the doctor's instructions for applying the antibiotic ointment carefully. First, wash the affected areas of skin and then apply the ointment.

You may choose to wear medical gloves to apply the ointment to protect yourself. Alternatively, you could wash your hands very thoroughly afterwards.

With treatment, the infection usually clears up within around five to seven days.

What happens next?

Most children recover quickly, and the sore patches usually heal well.

Impetigo is not usually a serious condition and complications are rare. But newborn babies are particularly susceptible, and they can become ill quite quickly. Very occasionally the infection can spread to a deeper layer of skin, or can affect the kidneys.

It's a good idea to stay alert for any changes in the child's condition and contact their doctor if you have any concerns.



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Molluscum Contagiosum

Molluscum contagiosum is a mild, viral skin infection that usually affects children between the ages of five and 10. It causes small, shiny lesions on the surface of the skin, most often the trunk, face and extremities.

The lesions can appear singly or in clusters and although they look unsightly, they are not usually troublesome. They usually clear up within a matter of months but sometimes may persist for longer.

What causes molluscum contagiosum?

Molluscum contagiosum is caused by a virus. It spreads easily. It can be passed on by direct contact, in other words touching open lesions of a person who has the condition, or through indirect contact, for instance sharing clothing or towels. It can also be picked up in swimming pools.

The rate of incidence is highest among five to 10-year-olds but anyone, including babies and adults, can catch it. Those children with lowered immunity, for instance after having chemotherapy, are more likely to develop widespread, persistent lesions.

Interestingly, the worldwide incidence of molluscum contagiosum seems to be on the increase although it's unclear why this is happening.

What are the signs and symptoms of molluscum contagiosum?

The incubation period, the time from initial contact to the first lesions appearing, is usually between two and eight weeks. When they begin to show, the lesions start as tiny raised bumps that grow to one to five millimetres across. Sometimes they can be bigger.

The lesions are dome shaped with a central dimple, and can be pearly white or flesh coloured. They contain a white substance that is almost cheese-like in consistency. The lesions are not itchy and it is unusual for them to cause any problems, but occasionally children say they feel tender.

Most children develop between one and 20 lesions, but it's possible to develop more than 100. Around ten per cent of children also develop an eczema type reaction on the skin around the lesions.

Molluscum contagiosum is spread through direct or indirect contact with an open lesion. This makes it important that you wash your hands after touching the molluscum and for a child not to share clothing, or towels used on the infected area.

Children should also be discouraged from scratching the lesions as this can cause the virus to spread and also lead to potential scarring.



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Molluscum Contagiosum

How is molluscum contagiosum normally diagnosed?

The condition is diagnosed by the appearance of the lesions.

If a lesion becomes red and inflamed, it could indicate infection. If this happens, consult your GP to discuss whether antibiotics are needed.

How is molluscum contagiosum treated?

Parents are usually advised to let nature take its course. The lesions will clear up on their own in time.

There are limited treatments available, but these can be very painful and aren't usually recommended unless a child has a very widespread infection, or has compromised immunity. These include curettage, which involves removing the central core of each lesion, and cryotherapy, which involves applying liquid nitrogen.

If a child develops associated eczema, treatment can help reduce itching and discomfort.

What happens next?

The condition generally clears up of its own accord in a matter of months and in the majority of cases within a year.

There's no reason to keep children off school, or restrict friends coming back to your home, but it's a good idea to take sensible hygiene precautions.



The University Health Centre

Eczema

Eczema is inflammation of the skin, causing redness and itching. Eczema is one of the most common childhood conditions, affecting one in seven children in the UK under the age of five.

What causes eczema?

Eczema is genetic in origin. There is often someone else in the family with eczema, asthma or hay fever. There are many other factors known to influence eczema on a day-to day-basis.

The rate of eczema in children has increased in recent years, but the reason for this is unclear. It may be linked to changing environmental conditions.

Affected children have hypersensitive skin which reacts to allergens in the environment such as grass pollen, house dust mite, dander from cats and dogs and also feathers.

Different children will react to different allergens and these may alter throughout childhood. In 80 per cent of children with eczema, the condition appears in the first year of life

Eczema is often worse in the winter when the cold weather and low humidity increase skin dryness. A flare-up may also be associated with teething, a vaccination or even a mild infection such as a cold.

What are the signs and symptoms of eczema?

Skin will appear inflamed and red and will be itchy.

Are there any problems associated with eczema?

Yes – children with eczema will be more susceptible to skin infections. If itchy skin is scratched, it may split. A severe flare-up can be associated with a secondary bacterial infection which will usually require antibiotic treatment.

For some reason, eczema seems to attract certain bacteria, in particular one called staphylococcus aureus, which has been found on the surface of the skin of most children with eczema. It has been suggested that children with eczema may be allergic to some of these bacteria, which may aggravate the condition.

Children with eczema are three times more likely to develop asthma compared with other children. They are also susceptible to cold sores caused by the herpes simplex virus, and to warts which can be numerous and persistent.

How is eczema normally diagnosed?

A doctor will examine the child's skin and ask about family history. The doctor will want to know if the area affected is itchy, how long it has been there and whether flare-ups occur.



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Eczema

How is eczema treated?

Treatment has improved enormously over the past 20 years and eczema is no longer a condition children just have to put up with. Parents often don't realise how effective modern treatment can be.

First line treatment consists of emollients to moisturise and soften the skin. This helps to restore elasticity and suppleness and reduce itching. Adding bath oil to a bath will be advised.

Children with eczema should bathe at least once a day, with oil added to the water. Frequent bathing will also help keep the skin clean and reduce the risk of developing an infection.

A cream such as aqueous cream should be used instead of soap and for washing. A moisturising cream should be applied liberally to all areas of dry skin at least twice a day.

Using a topical steroid ointment as prescribed by a GP or skin specialist is usually an essential part of treatment. This should be applied once or twice a day specifically to the areas affected but not at the same time as moisturiser.

Parents sometimes worry about steroid ointment. Depending on the severity of the eczema, the ointment will usually be very mild and applied according to the instructions is both safe and highly effective.

How can eczema be prevented?

It is not known how to prevent eczema. However, preventing babies' skin from drying out by avoiding soaps and bubble baths and applying suitable moisturisers may help to reduce the risk of eczema.

What's going to help?

There are several things you can try to help control the symptoms:

- Dress children in cotton clothes, use cotton bed linen and feather-free pillows and duvets. Eczema can be aggravated by synthetic or woollen fabric and/or feathers.
- Use non biological detergents and avoid fabric conditioners which can aggravate eczema.
- Avoid smoking inside your home – the fumes can irritate skin.
- Avoid furry animals – children with eczema are usually allergic to cats, dogs and virtually all furry pets. Even if the animal isn't around it can leave dander everywhere.
- House dust mites, found in old mattresses and in dust on carpets, can make eczema worse. Reduce house dust mites by having new mattresses and vacuuming and damp dusting surfaces regularly. Wooden floors or lino are better than carpet. Wash furry toys regularly. It is also worth investing in a mattress cover which will be useful when children stay away from home.
- Try to make sure your house is well ventilated. A damp environment encourages the growth of fungi and moulds, which may aggravate the eczema.
- Hard water may irritate the skin. If you live in a hard water area try a water softener.
- Grass pollen can be a problem during summer. Avoid freshly cut grass and grass cuttings.
- Children's nails should be kept short to avoid harmful scratching.

What happens next?

Children generally grow out of eczema and can show a significant improvement by the age of five. A significant percentage will be clear of the condition by their teens.



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Lice

Head lice are tiny brown insects that can only live on human hair. They survive by sucking blood from the scalp. Head lice are easily spread by close contact, but do not spread disease.

They are very common, especially among school children and can affect anyone. Head lice are not a serious problem but they are difficult to remove.

What causes lice?

Head lice are tiny brown insects around three millimetres long – roughly the size of a sesame seed. They lay their eggs (nits) at the base of hair follicles. The eggs hatch after around seven days. They are fully mature adults, able to reproduce themselves, around two weeks later.

The life span of a female louse is around 40 days, during which time it can lay more than 100 eggs.

Lice only live on human scalps and they are not passed to or from animals. They can't fly or jump but use their six legs to hold on tightly to scalp hairs.

Head lice can affect anyone and having them is nothing to do with hair type or style. Nor is having head lice a sign of dirty hair.

They are usually passed by hair-to-hair contact. The lice simply walk from one head to another. Outbreaks often occur in schools as children work and play closely together.

The lice die after a couple of days away from a human scalp.

What are the signs and symptoms of lice?

Head lice are usually visible in the hair and on the scalp, especially during brushing. Some children might also feel itchy. The eggs are white in colour and can be found near the scalp. Head lice can reproduce and mature very quickly, so a few can quickly grow in number over a very short period of time.

How are lice normally diagnosed?

A child has head lice if you can see them in their hair. There might also be tiny red spots on the scalp. A doctor can only confirm the diagnosis if they find a live louse.

What's going to help?

Cleaning combs and brushes regularly helps prevent transferring the lice back onto the scalp. Try not to share brushes with other people. Maybe have one for each child.

Check the rest of the family for signs of head lice and treat if necessary. Inform friends and family who may come into contact with a child with head lice. Also remember to alert the child's school. Most schools have a head lice policy in place. They can advise whether the child needs to temporarily stay at home or can continue with school.



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Lice

How are lice normally treated?

If you suspect head lice, check the base of the hairs for eggs. They are oval, yellow or white, and tiny, less than one millimetre long. Also look carefully at the hair to see if you can spot adult lice. Favourite spots for infestation are behind the ears, and at the nape of the neck. If you can't see anything, try combing the hair with a fine toothed comb over a piece of white paper to see if any lice drop out.

Most people prefer to try natural methods to treat this problem first. This is a good idea because lice are becoming increasingly resistant to chemical treatments. The most effective is wet combing but it is hard work and you'll need to be persistent.

The best procedure is as follows:

- Wash the child's hair and apply a generous amount of conditioner, which should be left in.
- Use a good quality fine toothed steel comb and comb the child's hair in small sections over a piece of paper so you can see the lice drop out. Wipe the comb clean on a piece of tissue between each stroke.
- Continue until you can't see any more lice or nits after combing. This will probably take at least half an hour.
- Repeat every three or four days for at least two weeks so you remove any hatching lice before they have the chance to lay new eggs. You can't remove the eggs by combing, only the lice.

Alternatively you could try an insecticide lotion. You will need to apply the lotion to all areas of the child's scalp. It usually needs to be left in for up to 12 hours. For most brands, two applications a week apart are needed.

If lice are still present after the second application, they may be resistant to it. Try a different brand with different active ingredients.

It can take several treatments to get rid of the eggs and lice completely. Medicated shampoos and lotions contain quite strong chemicals, so some people may have an allergic reaction to them.

These lotions are not usually recommended for babies under the age of six months. Some brands are not suitable for children with asthma.

How can I reduce the risk of lice?

Check the child's hair regularly for signs of head lice. Start treatment as soon as possible if the child has them. Do not use medicated lotions as a preventative measure. This only encourages resistant strains of head lice to emerge.

What happens next?

Head lice are not a serious condition and are not dangerous. But it is best to tackle it early to prevent it passing to others.



Infant Feeding: Weaning

The purpose of this guideline is to provide guidance about infant feeding and weaning.

Age of introduction of solid foods

The Department of Health recommends that healthy term infants need no nutrition other than breast milk or formula milk until six months (26 weeks) of age (Rationale 1).

Some babies may benefit from solids sooner and may be ready for solids from four months (17 weeks of age). Each baby should be assessed on its needs for solids individually. Discuss this with your ward dietitian (Rationale 2).

Some babies with certain clinical conditions may have solids introduced before 17 weeks as a means for them to take their prescribed supplements eg cystic fibrosis, metabolic disorders. Discuss with your ward dietitian (Rationale 3).

Premature babies must be assessed individually for their readiness for solids - discuss with your ward dietitian (Rationale 4).

How to give solids

The baby must be well supported and not slouching with its abdomen doubled over; use a reclining chair for younger babies, or a high chair once they can support themselves (Rationale 5).

Use age-appropriate bowls to put the food in.

Food should be given from a hard plastic weaning spoon that will not crack. Do not use a metal spoon (Rationale 6).

First weaning foods are for tastes only. A few teaspoons should be offered before one feed.

Foods should be of a smooth puree texture (Rationale 7). Once the baby is happy with this, offer puree foods before a second feed, and then a third feed, gradually increasing the quantity (Rationale 8).

The consistency can be made thicker as the baby learns to eat. Don't move onto thicker textures too quickly (Rationale 9). By 9-12 months of age, most healthy babies will be able to cope with minced and mashed textures.

Babies may not progress so quickly and must be individually assessed (Rationale 10).

It is very important that babies in hospital are offered food at mealtimes and that eating becomes part of the daily routine (Rationale 11).

Allow messy play – give the baby their own spoon to feed themselves and let them use their hands (Rationale 12). Never leave a baby alone with food (Rationale 13).

Most babies will be fed in their cubicles and their parents and family should be encouraged to feed them (Rationale 14).

Older children should be encouraged to eat in the ward dining room/play area with other children or their family (Rationale 15). For older children make sure that furniture, cutlery and crockery is age appropriate and that the dining area is a cheery environment, without too many distractions (Rationale 16).



Infant Feeding: Weaning

How to give solids

Babies under one year of age must be fed commercial baby foods: tins, packets, jars, according to Trust policy. In exceptional circumstances some older infants (over nine months of age) may be fed from the ward trolley with the permission of the ward manager and parent (Rationale 17).

First foods should be baby rice, puree fruits and puree vegetables. Commercial baby foods are available via a top up system (Appendix 1) (Rationale 18).

Full feed volumes should be given whilst first weaning foods are given (Rationale 19).

Once established on baby rice, fruits and vegetables, weaning foods can include puree meat/fish/cheese dinners and milk-based baby desserts. It is important to offer savoury foods as well as sweet foods.

Salt and sugar must not be added to solids for infants (Rationale 20).

The move onto commercial baby foods containing lumps will need to be assessed for the individual baby. Some babies do not cope well with the texture of these 'second stage' baby foods and will manage better if the lumps are mashed up (Rationale 21).

If a baby is finding difficulty swallowing solid foods, consider a referral to your ward speech and language therapist (Rationale 22).

If a baby is having a special therapeutic feed from the Special Feeds Unit, they are likely to also need a special diet.

Discuss weaning diets with your ward dietitian. Meals may be sent from the Diet Kitchen if the commercial baby foods are not suitable (Rationale 24).

As more solids are taken the baby will naturally take less formula. From seven months a baby taking solids has a fluid requirement of 120ml/kg. Fluid does not necessarily have to be taken as feed and will depend on how well the baby is eating. If there are any doubts about the baby's intake discuss with your ward dietitian (Rationale 25).

Babies can be given water from a cup from six months of age. Use Ready To Feed (RTF) water, order number: ABT 055. Juices should not be given (Rationale 26). Bottle-feeding is discouraged from one year of age in healthy children.

Please note: Sick babies and children may need to drink from a bottle well into their toddlerhood (Rationale 27).

Feeding difficulties in tube fed infants and young children

Stimulate the mouth during a tube feed – seek the advice of your ward speech and language therapist for the right technique (Rationale 28). Give the baby a dummy to suck while they are being tube fed (Rationale 29).

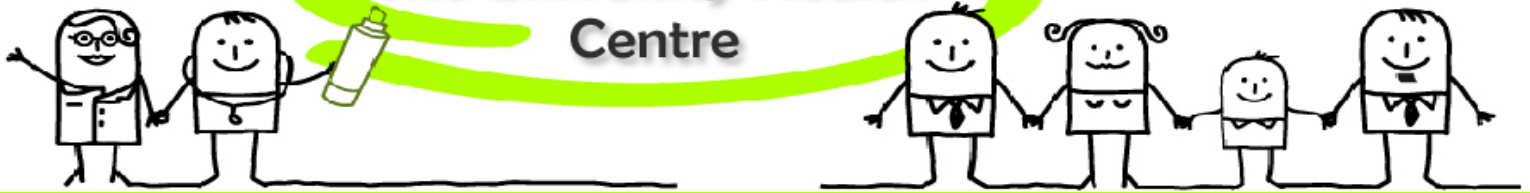
Make sure that normal interactions take place while tube feeding eg hold and cuddle the baby within sight of your face, make eye contact and talk to them (Rationale 30).

Sit young children, where possible, with others of their own age at meal times (Rationale 31). Introduce fun activities related to food eg feeding dolls or teddies, making food shapes from play dough - seek the advice of your ward play specialist for further help (Rationale 32).

Provide food for tasting if the baby or child is allowed to eat – seek advice from your ward dietitian if they are on a special feed (Rationale 33).

Look at the timings of when feed is given (eg daytime boluses or overnight feeding) and offer foods at other times (Rationale 34). Liaise with your ward dietitian if feed volumes are reduced as intake of food increases (Rationale 35).

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Infant Feeding: Weaning

Rationale

Rationale 1: Breast milk and formula milk meet the nutritional requirements of most healthy babies for the first six months of life (World Health Organisation 2001; Department of Health (DH) 2007).

Rationale 2: Sick infants have different nutritional requirements to healthy babies. To ensure nutritional adequacy and that appropriate solids are offered.

Rationale 3: To ensure nutritional adequacy and that appropriate solids are offered.

Rationale 4: The degree of prematurity will determine the appropriate age for introduction of solids.

Rationale 5: To ensure the baby is comfortable and the stomach is not compressed.

Rationale 6: The shallow bowl of a weaning spoon allows the baby to more easily take food from it. A metal spoon may harm the baby's mouth.

Rationale 7: To allow the baby to practise how to move a bolus of food around and to experience flavours and textures (North 2004).

Rationale 8: To allow the baby to learn to eat solid food.

Rationale 9: The baby may choke on thicker textures and become food averse.

Rationale 10: Sick babies are often developmentally delayed and may take longer to progress from puree foods to thicker textures.

Rationale 11: To encourage normal developmental milestones.

Rationale 12: To encourage normal developmental milestones.

Rationale 13: To prevent choking.

Rationale 14: To encourage normal family social interactions around feeding times.

Rationale 15: To encourage normal social interactions around meal times.

Rationale 16: To create an environment that is conducive to eating (NHS Estates 2003).

Rationale 17: For microbiological safety.-To determine that it is safe to feed the individual baby this way.

Rationale 18: To comply with recommendations (DH 1994).

Rationale 19: To ensure nutritional adequacy.

Rationale 20: To introduce a wider range of nutrients and tastes to the diet (DH 1994).

Rationale 21: Puree phase mixed with lump phase is not easy for babies to chew and swallow without choking.

Rationale 22: To assess whether there is any anatomical dysfunction that is interfering with feeding and accepting appropriate food textures.

Rationale 23: There is no provision for freshly cooked foods for weaning diets.

Rationale 24: To ensure that the correct foods are given.

Rationale 25: To ensure nutritional adequacy.

Rationale 26: The acidity and sugar content of juices can cause dental caries (DH 1994)

Rationale 27: To progress to feeding from a cup (DH 1994). Developmental milestones may be delayed in sick children. They may gain comfort from sucking from a bottle.

Rationale 28: To help the baby learn to associate feeding with the sensation of touch in the mouth area.

Rationale 29: To associate mouth activity with feeling their hunger satisfied.

Rationale 30: To help the baby associate feeding times with social activity and comfort (Douglas 2002; Harris et al 2000; Southall and Schwartz 2000).

Rationale 31: To help the child associate feeding times with social activity and comfort (Douglas 2002; Harris et al 2000; Southall and Schwartz 2000).

Rationale 32: To reduce anxiety around feeding and mealtimes.

Rationale 33: To familiarise the child with flavours and textures.

Rationale 34: To introduce new food tastes when the child is likely to be most hungry and receptive to oral intake.

Rationale 35: To ensure nutritional adequacy is maintained.



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Seasonal Flu

Flu is caused by a virus and each outbreak is caused by a particular strain or type. Once a person develops flu, they build up resistance to the particular strain causing it. Seasonal flu is the type that tends to occur during the winter months.

The flu virus can be more serious in children with certain long-term health conditions, particularly if their immune system is 'damped down' by medicines called immunosuppressants. This means that their immune system cannot fight off the virus as well as usual and cannot develop immunity to it either.

Key points

- Seasonal flu is the type that tends to occur during the winter months.
- Flu is caused by a virus so antibiotics cannot be used to treat it.
- Flu can be more serious in children who have certain long term health conditions.
- We advise that these children receive the flu vaccination each year.
- Children in high-risk groups who have not had the flu vaccine and come into contact with someone with flu may need antiviral medicine.

How is seasonal flu spread?

The flu virus is spread by droplets breathed out through the nose and mouth. The droplets can live for a few hours on hands and surfaces such as tissues and door handles. The next person to touch them can pick up the droplets and so catch the virus.

Who is at risk of developing flu?

Potentially, everyone is at risk of developing flu. However, some groups of people may be more likely to become ill. These include: very young or very old people, people with existing medical conditions such as asthma or diabetes, or those whose immune system is damped down either by illness or treatment like chemotherapy.

Prevention of flu in children in high risk groups

The flu virus can be more serious in children with certain long-term conditions including:

- chronic respiratory illness, such as asthma or cystic fibrosis
- chronic heart disease
- chronic neurological conditions
- chronic liver problems
- chronic kidney problems
- a 'damped down' immune system, either due to medicines or illness
- HIV infection
- diabetes mellitus

Vaccines are available to prevent people developing flu, but they only work against a particular strain of flu. We strongly advise that any of our patients over six months old with the above conditions are vaccinated against flu each year. This can easily be arranged through your family doctor (GP) but if you have any problems, please discuss it with your consultant.

The only exception to this advice is for children with an egg allergy. Currently the flu vaccine is developed using eggs so we do not recommend it for children with egg allergy.



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Seasonal Flu

Are there any other ways of preventing flu?

The best defence against viral infections is sensible hygiene precautions. These include:

- Thorough hand washing with soap and water before eating and after using the toilet.
- Covering your mouth when you cough.
- Catching sneezes in a tissue and disposing of it immediately afterwards.
- Cleaning surfaces such as door handles and work surfaces with soap and water regularly.

There is usually no need to use 'antibacterial' wipes, hand washes or cleaning products, as they are unlikely to work against viruses any better than soap and water.

What are the symptoms of flu?

Unfortunately, the symptoms of flu can look like many other viral infections. There is no definitive test for flu, so the diagnosis is usually made on the basis of symptoms and whether many people in the local area are showing similar symptoms. The likelihood in this case is that the flu virus is causing the flu-like symptoms.

There is usually an incubation period, that is, the time between developing the virus and showing symptoms, of one to four days. The symptoms to watch out for are:

- high temperature with chills
- headache
- muscle aches
- sore throat
- cough
- runny nose

The high temperature tends to last between two and four days, but the cough may last a little longer. Most people will start to feel better in one week, although tiredness can linger on for a few days or weeks more. Tiredness is a side effect of all types of flu, so is no cause for concern.

Flu in the community

The Department of Health (DH) monitors the number of people developing flu on a weekly basis. When these numbers increase significantly, DH advises doctors to offer treatment to people at high risk who have not been vaccinated and who come into contact with flu. This should reduce the number of people catching flu. The advice from DH therefore depends on the frequency of flu cases in the community and will change during the season. Up to date advice will be available from your family doctor (GP) and Primary Care Trust.



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Seasonal Flu

What should I do if my child comes into contact with someone with flu-like symptoms?

If your child has not had the flu vaccination but is in one of the high-risk groups above, he or she may need treatment with antiviral medicine. Two types of antiviral medicine are used: oseltamivir and zanamivir, both of which need to be given within 48 hours of contact. Children who have had the vaccination within two weeks of coming into contact with the flu virus will need treatment. Treatment might also be needed if a new strain of flu develops, which the vaccination does not cover. Your family doctor (GP) will be able to advise you, depending on the up to date advice from DH.

Antiviral medicines prevent the spread of the virus in the body and so help to ease or prevent the symptoms of influenza.

Oseltamivir (Tamiflu(R)) comes in tablets or a suspension and the usual course is 10 days. It can cause side effects such as an upset stomach, feeling and being sick, headache, tiredness, nosebleeds or a rash. Oseltamivir is removed from the body by the kidneys, so some children with chronic kidney disease may need either to take less frequent doses. More information about children with kidney disease and oseltamivir is at the end of this information sheet.

Zanamivir (Relenza(R)) comes as a dry powder to be breathed directly into the lungs. The usual course is five days. It can cause breathing problems or a rash. If your child develops tightness in their throat or chest or seems to have difficulties breathing, stop giving the medicine and seek immediate medical help.

With both medicines, your child should complete the course even if the person with flu is better.

Oseltamivir and zanamivir can be taken with paracetamol and/or ibuprofen and is not expected to alter the effects of any other medicines. It can cause side effects such as an upset stomach, feeling and being sick, headache, tiredness, nosebleeds or a rash. However, the discomfort caused by these symptoms is less than the risk of developing flu.

Does the person with flu-like symptoms need treatment too?

If a family member develops flu-like symptoms, he or she should rest as much possible and keep drinking plenty of fluids to prevent dehydration. Taking painkillers such as paracetamol or ibuprofen, unless you have been advised otherwise, can help lower a high temperature and help aching muscles.

In babies and children, dehydration is the most serious symptom. If you are breastfeeding, give your baby a feed as often as he or she seems to want it and give water in between feeds if needed. Make sure your child takes plenty of fluids, either as liquid such as squash, juice or water, or in foods such as jelly. As long as your child is taking fluids, it does not matter if he or she does not feel like eating for a few days. If your child develops a temperature, you can lower this by taking off your child's clothes and keeping the room cool. Do not use a fan or open the window as this could cause a chill. Paracetamol-based medicines given according to the instructions on the bottle, unless you have been advised otherwise, can also help reduce a temperature.

If you have any questions, please talk to your consultant



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Seasonal Flu

Dosage instructions for children

The following doses are for oseltamivir prophylaxis, to prevent seasonal flu after coming into contact with the virus. The dosage instructions for children are different to those for adults. Please show this sheet to your family doctor (GP) and pharmacist.

Children with normal kidney function

- Oseltamivir is available as capsules or liquid suspension.
- Dosage is worked out by weight as follows (recommended dose for 10 days):
 - 15kg or less - 30mg once daily
 - between 15kg and 23kg - 45mg once daily
 - between 23kg and 40kg - 60mg once daily
 - 40kg or more - 75mg once daily

Your pharmacist will explain how to give the correct dose for your child.

Children with chronic kidney disease

- Oseltamivir is removed from the body by the kidneys so children with chronic kidney disease may need to take it less frequently.
- The following information will enable your family doctor (GP) to prescribe the correct dose for your child.
- The dosage for children with chronic kidney disease is worked out according to their creatinine clearance level.
- When you see your family doctor (GP), please take your child's most recent creatinine results with you.

Creatinine clearance (recommended frequency for 10 days):

- more than 30ml/min - once daily
- between 10ml/min and 30ml/min - every other day, that is, five doses in total
- less than or equal to 10ml/min or patients receiving dialysis - not recommended



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Chicken Pox

Chicken pox is a very common infection, which most children catch sooner or later. Chicken pox is a rash with small blisters that can appear all over the body and often is accompanied by fever.

What causes chicken pox?

It is caused by the varicella zoster virus which spreads by direct contact with chicken pox blisters and through droplets breathed out through the mouth and nose.

Generally chicken pox can only be caught once, although there are rare reports of a person having it more often. In some cases, the virus can reactivate following chicken pox causing shingles, which is usually a small area of blisters on the skin.

Who is at risk of developing chicken pox?

The majority of children catch chicken pox at some time. As it is infectious from about two days before the rash appears, children often go to nursery or school when they have it and outbreaks are not uncommon.

It is infectious until all the blisters have formed scabs (usually about seven days). People sometimes think that the scabs have to fall off before the risk of infection has gone, but this is not the case.

The spots, and then blisters, can develop in several phases, so check the child all over to make sure that scabs have formed on all the blisters before sending him or her back to nursery or school.

Chicken pox has an incubation period of eight to 21 days, which means that a child can develop it between eight and 21 days after coming into contact with someone with chicken pox. However, in most cases there is no need to keep the child away from nursery or school if they have been in contact with chicken pox but not caught the illness.

What are the signs and symptoms of chicken pox?

Before the rash appears, a child may seem unwell and have a temperature. The rash tends to start as small red spots which then develop into blisters. It usually starts on the body and face and often spreads to the arms, legs and scalp. It may also appear inside the mouth and nose, and sometimes on the genitals.

After a few days, the blisters start to scab over, but new blisters may still continue to appear. The number of spots varies from person to person. Some children only get a few, while others seem to be covered in them.

How is chicken pox normally diagnosed?

A GP will be able to diagnose chicken pox easily once the rash has appeared as it has a distinctive appearance. The spots are round and form a blister with fluid inside.



Chicken Pox

How is chicken pox treated?

There is no way of reducing the length of time a child has chicken pox, only making the symptoms more bearable. A vaccine against chicken pox is used as part of the normal vaccination programme in the United States, but it is not currently in general use in the UK.

If the child has a temperature, you should try to bring it down with paracetamol. Try to keep the child cool as heat and sweating makes the itching worse.

It is always a good idea to use a separate towel for the child with chicken pox, although if the child has siblings this is unlikely to prevent them from catching it.

Efforts should be made to stop the child scratching the blisters as this will make them sore and open to infection. The blisters are also more likely to leave a scar if the scabs are scratched off.

The scratching can be reduced by cutting the child's nails short and persuading them to wear cotton gloves. Calamine lotion will help to reduce the itching but it needs to be reapplied regularly. If the itching is so bad that the child has trouble sleeping, a doctor can prescribe an antihistamine.

If the child has blisters inside their mouth, this can make them feel particularly miserable and not feel like eating or drinking. Watch them carefully for any signs of floppiness or dehydration and seek advice from a GP if you are worried. Cold drinks and soft bland foods can help, but avoid giving the child anything too salty or acidic.

Is it dangerous?

For most children, chicken pox is nothing more than a mildly uncomfortable illness which gets better on its own. However, it can be dangerous for people with immune problems who have had no history of previous chicken pox to come into contact with someone who has active chicken pox.

People who have not had chicken pox and are receiving chemotherapy, taking steroids or have weakened immune systems must always seek advice from their GP, hospital consultant or infection control nurse and may have to have a special injection (VZIG) each time they come into contact with chicken pox.

What happens next?

Once a child has had chicken pox, they will be immune from it for the rest of their life. Catching chicken pox more than once is extremely rare. However, it is possible that the disease could return in later life as shingles, when the virus causing chicken pox is re-activated. A person with shingles can pass on chicken pox to other people who have not had it before, but not shingles.

Chicken pox is unlikely to have any lasting effect on a child. The most common after effect is one or two tiny scars if the scabs have been scratched. In very rare circumstances, other conditions can develop after chicken pox, but this is unlikely.



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Mumps

As a parent, you may be aware of an increase in cases of mumps. You may know of people who've had it, or have heard media reports about teenagers affected by this infectious disease.

In fact, there was a dramatic increase in the number of cases of mumps in England and Wales between 2004 and 2006. In 2004, a total of 8,014 cases of mumps were confirmed, compared to a total of 3,907 in the previous five years put together. In 2005, there were 43,378 cases. Fortunately in 2007, the number of cases fell to 1,476.

This once-common infection did become rare after the introduction of the MMR (measles, mumps and rubella) vaccine in 1988. It has mostly re-emerged in older teenagers and young adults, born before 1987. So with the disease in circulation again, any child or teenager who has not had two doses of MMR will be vulnerable. It's therefore worth being aware of the signs and symptoms of mumps.

What is mumps?

It's a moderately infectious disease caused by a virus from the paramyxovirus group of viruses. It spreads from an infected person in airborne droplets, via coughs and sneezes, and even just by breathing.

Who is most at risk?

Mumps can affect anyone of any age, but it mostly affects children between the ages of five and ten. It is unusual in children under the age of one.

Fortunately, the vast majority of children in this age bracket are protected from mumps through having had two doses of the MMR vaccine.

The recent outbreaks were mainly among older teenagers and adults aged between 19 and 23, who were born before 1987. In fact, most were born between 1983 and 1986.

When the MMR vaccine was introduced in 1988 (single mumps vaccine was never used), there was a catch-up programme which included children up to the age of five but many missed out.

In addition this group would not have routinely been given two doses, which offers more comprehensive protection than one dose of the vaccine.

Signs and symptoms

The first signs of mumps appear after an incubation period of between 15 and 24 days.

The first symptoms tend to be flu-like, with a headache and fever, followed by the classic swelling of the parotid (salivary) glands which sit just below the jaw line on either side of the neck. The swelling may be confined to one side only, but in 90 per cent of cases both sides of the neck are affected. Your child will feel generally unwell.

The symptoms tend to be more severe in children after the age of puberty, and in adults. However, around one in three cases of mumps are termed 'sub clinical' – in others words there aren't any symptoms at all.



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Mumps

Making a diagnosis

The classic neck swelling is distinctive, but it's important to see your GP. The diagnosis can be confirmed with a saliva test. Mumps is a notifiable disease – each case needs to be reported to the Health Protection Agency, which your GP will be able to do. It's best to call the surgery beforehand to warn them your child might have mumps, as there may be a separate waiting area for people with infectious diseases.

Treatment

There isn't any specific treatment, other than management of the symptoms. Because the salivary glands are affected, swallowing can be painful. Your child will need plenty of drinks and will probably find it easier to have soft food (such as ice cream and yogurt) that is quite easy to swallow.

If your child feels uncomfortable, pain relief medication such as paracetamol or ibuprofen may also be helpful.

When is a child infectious?

It's not known exactly when the infectious period begins, but it is thought that a person who has been infected with mumps begins to shed the virus themselves (in other words they are infectious and can pass it on to other people) around four to seven days before any symptoms appear.

It's recommended that children/teenagers should stay away from school, college or work for five days after the parotid glands become swollen.

Complications

Most children with mumps make a full recovery. But there are several possible complications that can affect girls as well as boys, including viral meningitis.

In fact, before the introduction of the MMR vaccine, mumps was the main cause of hospital admission for viral meningitis, affecting one in 400 who got the disease.

Other complications include inflammation of the pancreas, and ovaries or testes. It is commonly believed that mumps can lead to sterility in men, but there is no firm evidence for this.

More rarely, children may develop permanent deafness following mumps but this is thought to affect only one in 15,000. Encephalitis (inflammation of the brain) is another rare complication, affecting around two or three people in 10,000.

Mumps

Preventing mumps

As mumps can result in meningitis, and other complications such as hearing loss, it is potentially a serious condition.

It is therefore important that children are protected against it. The only effective way of doing this is to have two doses of MMR vaccine. All children should have been offered two doses of MMR vaccine by the age of four years.

If you are not sure whether your child has had two doses of MMR, you could ask your GP's surgery for confirmation. This is particularly recommended for all school leavers and people born after 1982. The surgery should have written records with dates for vaccinations given.

If there are no written records, or if there is any uncertainty, it's best for your child to have the vaccine. If your child was already immune, the vaccine will have no effect other than perhaps a slightly sore arm where the injection was given.

If mumps is to be eliminated, 85-90 per cent of the population needs to be immune and two doses are necessary to eliminate the infection. Currently the uptake of MMR among young children is about 83 per cent but is much lower in some areas.

The current outbreaks are not a direct result of lower uptake of MMR in the pre-school age group, which followed concerns over the vaccine's safety, and in particular one paper which questioned whether it was linked with autism and bowel disease. Further extensive research has explored this link and there is convincing evidence that the MMR vaccine does not cause autism.



Measles

Few parents today will remember the potentially devastating effects of measles before the introduction of a vaccine against this disease.

In fact, complications were relatively common, and measles claimed the lives of around 85 children every year in the UK (more in epidemic years) before the vaccine became part of the routine immunisation schedule in 1968.

Protected

Fortunately the vast majority of children in the UK are now protected against measles. A huge amount of research worldwide has overwhelmingly confirmed the safety of the MMR vaccine, and has led to a return in public confidence following scare stories raised by one doctor in the late 90s.

But in some areas where uptake of the vaccine is low, there have recently been outbreaks of measles. For instance, between May and October 2007, 544 cases of measles in preschool and primary age children were confirmed in North East London. At least two of these children needed intensive care treatment because their lungs were affected.

So it's worth knowing a bit about measles – what to look out for, and how the vaccine can protect your child.

What is measles?

Measles is a highly contagious viral infection. It spreads easily from an infected person via coughs and sneezes, and even just by breathing.

Symptoms develop between six and 19 days after contact with the infection. Children with measles are usually infectious themselves for one or two days before the rash appears – in other words, before it's confirmed that they have measles.

The first symptoms, which usually last two or three days, include feeling generally unwell and having a runny nose, cough, sore eyes, and a fever which may be as high as 40C.

Children may also complain that bright light hurts their eyes. A day or two before the rash appears, some children develop 'Koplik's spots' – tiny white spots on a red background inside the mouth.

Rash

The rash appears on the fourth day of the illness and is red and blotchy. It starts at the hairline and travels down the body over a period of about three days, although it's mainly confined to the face and upper body. After three to four days, the rash turns a brownish colour and gradually fades.

Having measles is believed to give a child lifelong immunity against the infection.

The condition does have what's known as an 'immunosuppressive' effect – so for a period of months after the attack, your child might be more susceptible than usual to other infections.



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Measles

Complications

Most children with measles make a full recovery – but unfortunately, around one in 15 suffer from complications. These include pneumonia, middle ear infections and convulsions. One in 70 have to be admitted to hospital. The risks are higher in children under the age of one.

Making a diagnosis

The measles rash is very distinctive, but it's important to see your GP. Your doctor will take a sample of your child's saliva for testing to confirm the diagnosis.

Measles is a notifiable disease – each case needs to be reported to the Health Protection Agency which your GP will be able to do. It's best to call the surgery beforehand to warn them your child might have measles, as there may be a separate waiting area for people with infectious diseases.

What is the treatment?

There isn't any specific treatment for measles itself – only the symptoms. You'll be advised to ensure your child has plenty to drink, to offer liquid paracetamol to reduce fever and to contact the surgery if you suspect your child's condition is deteriorating.

Measles and pregnancy

Measles can be dangerous to the unborn child. It's really important to keep a child with measles away from anyone who is pregnant during the infectious period, as the woman may not have had measles.

Preventing measles

The most effective way of preventing measles is through the MMR immunisation. Most children in the UK receive the MMR immunisation; the first dose is offered at 13 months and the second at three years four months to five years old. However, the second dose can be given as soon as three months after the first dose.

One dose of a measles-containing vaccine is about 90 per cent effective against measles. A second dose of MMR was introduced to the UK vaccination schedule in the mid 90s, before children started school, which is very important as it raises their immunity against the disease to almost 100 per cent.



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Measles

Herd immunity

Vaccination is important. As measles is so infectious, a high level of immunity is needed before 'herd immunity' can be reached. Herd immunity occurs when a certain percentage of a population is vaccinated and the spread of the disease is effectively stopped.

To reach this level of protection, about 85 per cent of preschool children should be immune (for this to happen, 90-95 per cent need to be immunised with at least one dose of vaccine).

Currently in the UK, around 85 per cent of children receive two doses of MMR but some areas are below this.

The decline in the uptake of the vaccine is the result of publicity surrounding a paper that suggested an association between the MMR vaccine and the development of autism and bowel problems in children.

Research has since been conducted to explore this link and there is convincing evidence that the MMR vaccine does not cause autism (DeStefano and Thompson, 2004; McCormick et al, 2004).
