

Common contagious diseases

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OVERVIEW

Signs of contagious disease

When a child is about to become ill, s/he often becomes weak, fussy, irritable or teary. Young children may vomit or complain of an upset stomach, even though the illness is not located in the stomach.

When can a child return to school/day care?

The rule of thumb is that sick children and staff may not come to school, and that a child with a contagious disease may return only when s/he is no longer contagious. The child should be able to participate fully in activities without requiring extra help or support.

There are, however, exceptions to this rule and the definition of “healthy” and “sick” is not always so simple.

What is a contagious disease?

Contagious diseases are the result of an infection by microorganisms such as bacteria, virus, fungi or parasites. Infection is transmitted from person to person, or in rarer cases, from animals to people. Infection can also happen via food, water or soil (see below).

The **incubation period** is the time between the point of infection and appearance of symptoms.

The **contagious period** is the time during which a person is able to transmit the disease to others.

In order to limit transmission of diseases, it is important to follow the rules about when children can come to school. Additionally, the level of hygiene at the institution is a factor in the rate of disease among children and adults. This includes, for example:

- that children and adults practice the correct hand hygiene, at the correct times
- that the institution ensures a good standard of cleanliness with careful cleaning of surfaces and toys
- that there awareness about how and when disinfection should occur
- that general hygienic rules are followed in relation to diaper changing
- that there is awareness of proper technique for cleaning wounds

Fever

When measured rectally, the normal temperature is 36.5-37.5° C in the morning and up to 37.9° C in the evening. The temperature is approximately 0.5° lower when measured by mouth or ear thermometer. Ear thermometers can be used on children older than one year. Skin thermometers (forehead strips) cannot generally be considered accurate. Temperature should be taken when a child has been resting for about 30 minutes, in a room that is not too warm. During normal play or crying, a child's temperature can rise to 38.0° C without it being an indication of illness.

There is a rise in temperature associated with most contagious diseases. A child has a fever if his or her temperature is 38.0° C or higher.

A child should not return to school until his/her fever has been gone for at least 24 hours.

The employee's role when a child is sick

In addition to the dissemination of information about cases of illness, employees should defend against infection by ensuring that sick children do not attend school or day care and by practicing good hygiene. Employees should also inform parents about the relevant guidelines, for example, during parent meetings.

A sick child in the institution

If a child is sick, or suspected of being sick, employees are required to:

- contact the parents and inform that the child should be taken home as soon as possible
- keep the child separate from other children, but still under supervision. Even seemingly harmless illnesses can quickly take a serious turn. Medicine should, as much as possible, be given at home. With chronic or long-term illness, it may be necessary to administer medicine several times during the day.

The parent's role when a child is sick

A prerequisite for reducing the amount of illness in an institution is that sick children stay home. This is especially important for young children where the frequency of infection is already high.

Parents have a special task. They should:

- keep sick children home
- respect employees' appraisal of whether a child is sick/contagious when contacted by the institution and asked to take a child home
- orient themselves with the Danish Health Authority's rules about when a child can return to school/ day care.
- inform the institution about the child's diagnosis, and understand the confidentiality requirements for schools/ school leaders
- uphold general hygienic standards and be aware if/when rules are tightened in certain special situations

CHICKEN POX

Chicken pox is a common illness, particularly for children under age 12.

Contagiousness

Chicken pox is caused by a virus and is transmitted via airway secretions passed by hand or object (toys, door handles, etc), by droplets coughed or sneezed into the air, or by fluid from blisters. Dry scabs do not transmit the illness.

Chicken pox are contagious from about 3 days before symptoms appear until 5 days after symptoms appear or until there have been no new blisters for 2 days/ the blisters have dried.

Incubation period: 2 – 3 weeks.

Symptoms

Some children have a fever, abdominal pain, sore throat, headache, or a vague sick feeling a day or two before the rash appears. Chicken pox causes a red, itchy rash on the skin that usually appears first on the torso or scalp before spreading to the face and other parts of the body.

The rash begins with small red spots that form blisters, which then pop or dry out into scabs. The illness is usually gone within a week, but it can take a long time for the scabs to fall off. The rash is often very itchy and scratching can cause infection in the wounds.

Treatment

There is usually no treatment for the illness. Zinc liniment, available over-the-counter, can be used to help with itching.

Pregnancy

There are special rules for pregnant women who have not had chicken pox- please consult your doctor.

When to return to school

When the scabs have dried out and the contagious period has passed.

COLD

This is a group of illnesses that can stem from a variety of viruses that attack mucous membranes in the throat and airway. These illnesses are especially frequent among younger children.

Contagiousness

Infection is transmitted via airway secretions passed by hand or object (toys, door handles, etc), or by droplets coughed or sneezed into the air.

Incubation period: 1-7 days, dependent on the virus.

Symptoms

Runny nose, sore throat, coughing.

Treatment

A cold can't be treated, but an attempt can be made to reduce symptoms.

When to return to school

When the child is well.

DIARRHEA

Diarrhea is suddenly-occurring watery stools or several loose stools within 24 hours. To be considered diarrhea, there needs to be a clear change in the frequency and consistency in relation to what is normal for a child. Diarrhea can be caused virus, bacteria or parasite. Diarrhea can also be a symptom of other illnesses, particularly in small children, where vomiting and diarrhea can result from even ear- or urinary tract infection.

Contagiousness

Diarrhea can be transmitted via faeces or vomit passed by hand, object or food. Especially norovirus can live for long periods on surfaces and can be difficult to get rid of. The most common cause of transmission in schools is from people inside the incubation period who have diarrhea in the family, are sick themselves or have returned to school too quickly.

Incubation period: a few days

Symptoms

Vomiting, diarrhea, abdominal pain and possibly fever.

Treatment

It's important to drink plenty of fluids. Medication is required in rare cases.

When to return to school

When the child is healthy and parents are sure that stools are back to normal (which will generally mean staying home for at least 24 hours). In cases of norovirus, children should stay home for 24 hours after diarrhea and vomiting have ended.

FLU

The flu season is mainly in the winter months. There can be different kinds of influenza viruses. In years with particularly high incidence of flu, authorities may refer to an epidemic.

Contagiousness

Infection is transmitted via airway secretions passed by hand or object (toys, door handles, etc), or by droplets coughed or sneezed into the air. The disease is very contagious from the day before symptoms appear to 3-4 days after.

Incubation period: 1-4 days

Symptoms

Symptoms usually come quickly. There will be high fever, headache, muscle pain and general weakness, often followed by sore throat and cough. Among small children the symptoms of a cold can often be confused with influenza.

Treatment

Among typically-healthy children treatment is usually not needed.

When to return to school

When the child is well.

HAND, FOOT AND MOUTH DISEASE

A short virus infection with rash on the skin and in the mouth.

Contagiousness

HFM disease is often spread by hands or objects contaminated by airway secretions, faeces, or liquid from blisters. HFM can affect children or adults. Transmission often occurs via healthy carriers.

Incubation period: 5 days for mouth lesions and 7 days for skin elements.

Outbreaks usually occur during the warm summer and early fall months

Incubation time is 5 – 7 days.

The children are most contagious a week before the first symptoms shows...

Symptoms

HFM can begin with general malaise and light fever, but usually the rash is the first sign of disease. In the mouth, and especially on hands and feet, small red spots appear that develop into liquid-filled blisters. It can be hard for a parent to tell if a child (especially a preverbal child) has HFM disease if sores are only inside the mouth or throat. If a child stops eating or drinking, or wants to eat or drink less often, it should send a signal to parents that something is wrong. The illness is usually over within a week.

Treatment

There is no treatment for this illness.

When to return to school

When the child is well.

IMPETIGO

A very infectious disease caused by bacteria (usually staphylococci or streptococci).

Contagiousness

Impetigo is transmitted when fluid from wounds contaminates hands or objects. It can also be spread by healthy carriers, who have the bacteria in their noses.

Incubation period: a few days

Symptoms

The wounds start as a small red spot that quickly develops into a seeping wound, covered by a yellow crust. The wound can be anywhere on the skin, but is most frequently around the nose or mouth. Transmission to others in the family is common.

Treatment

Impetigo usually *does* require medical treatment.

When to return to school

Children may not return until the wounds have dried out and scabs have fallen off. Even if treatment is underway, a wound can spread the disease. Older children who are better able to maintain good hand hygiene can return to school if the wound can be covered and if it is not widespread.

LICE

Head lice are very contagious and irritating for those that have them. They most commonly affect children aged 3-10. Lice can be a problem at any time of year, but are most common in the fall and spring.

Contagiousness

Lice live close to the scalp in both clean and dirty hair. They can not fly or hop and therefore spread almost exclusively via direct human contact, for example, between people that sleep closely together or share hats or combs. Lice can live up to 48 hours away from the scalp.

Incubation period: Whenever lice have moved from one person to another, infection has occurred.

Symptoms

Itchy scalp is the primary symptom, though a person may have lice for several weeks before itching begins, thus this is problematic way of assessing whether someone has lice or not. The best method to prevent lice is to give children regular checks, especially when there are other known cases of lice in the school.

Lice can be seen close to the scalp. A nymph is under 1 mm long. Grown lice are 2-3 mm long, with a colour that varies from gray-white to very dark. They move quickly. Pale yellow eggs are

found close to the scalp and resemble dandruff. However, unlike dandruff, they stick to the hair. Eggs that are further than 1 cm from the scalp are dead. The most common place to find lice are near the neck or behind the ears.

Treatment

Lice are treated with combing alone or combing in combination with medicinal shampoo. Resistance to the insecticides found in lice shampoo is widespread, so directions should be followed carefully. A video showing proper combing technique can be found at www.farvellus.dk

When to return to school

Children may return to school when treatment has begun. If an employee finds lice on a child, teachers will inform parents immediately to encourage pick up and the start of treatment.

PARVOVIRUS

Parvovirus, also called fifth disease or slapped-cheek syndrome, is a common and usually mild children's disease. Most adults have had the disease earlier and are immune. There is some risk for pregnant women.

Contagiousness

Infection is transmitted via airway secretions passed by hand or object (toys, door handles, etc), or by droplets coughed or sneezed into the air. The rash itself is not contagious. The contagious period is from 5-10 days after exposure until the rash appears. This means that transmission will usually occur before symptoms appear.

Incubation period: 13-18 days

Symptoms

The illness can begin with mild flu-like symptoms, but is usually first evident when the cheeks become red, followed by a rash that is especially visible on the arms and legs. The rash usually lasts just for a few days, but can reappear in the following weeks, especially when the child has been physically active.

Pregnant women in the first trimester are slightly at risk if exposed.

Treatment

There is no treatment. Pregnant women who may have been exposed should consult a doctor.

When to return to school

When the child is well.

STREP THROAT

A common bacterial infection, usually caused by *Streptococci* bacteria.

Contagiousness

Infection is transmitted via airway secretions passed by hand or object (toys, door handles, etc), or by droplets coughed or sneezed into the air. Healthy carriers can also transmit the disease. Children are contagious from the time of infection until 2 days after antibiotic treatment has begun.

Incubation period: 1-3 days

Symptoms

Symptoms include fever, pain when swallowing, swollen glands, red and white patches in the throat and general malaise. Strep throat can develop into scarlet fever, which is identifiable by a rash that starts on the stomach and spreads to the rest of the body. Another complication can be the development of a peritonsillar abscess.

If a sore throat is combined with a runny nose or coughing, it is likely caused by a virus, which is not strep throat, and does not usually require treatment.

Treatment.

Strep throat is treated with antibiotics.

When to return to school

Children should stay home for at least two days after beginning antibiotic treatment. After that, a child may then return to school when symptoms have abated.

THREADWORM/ PINWORM

Small worms that live in the intestine. The worms move outside the intestines to lay eggs near the anus.

Contagiousness

Threadworm eggs are tenacious and can survive for several weeks in bedsheets or house dust. Threadworm is usually spread via hand contact after an infected child has scratched or used the toilet. Threadworm is contagious from 2 weeks after infection until treatment has begun.

Incubation period: 2-6 weeks

Symptoms:

The only symptom is itchiness near the anus, especially at night. Threadworms are visible on faeces and, after bedtime, on the skin around the anus. They are about a centimetre long, white and thread-like.

Treatment.

Infected children or adults should be treated as soon as possible. The rest of the family should also be treated at the same time. Along with treatment, bedsheets and underwear should be washed at minimum 60° C. Hands and shortly-clipped fingernails should be kept clean using a nailbrush.

When to return to school

Children may continue attending school.