

Communicable Disease Chart and Notes for Schools and Child-Care Centers

The major criterion for exclusion from attendance is the probability of spread from person to person. A child could have a noncommunicable illness yet require care at home or in a hospital.

Condition	Methods of Transmission	Incubation Period	Signs and Symptoms	Exclusion ¹	Readmission Criteria ¹	Reportable Disease ^{2,3}	Prevention, Treatment, and Comments
AIDS/HIV Infection	-Direct contact with blood and body fluids	Variable	-Weight loss, generalized swelling of the lymph nodes, failure to thrive, chronic diarrhea, tender spleen and liver -Individuals can be asymptomatic	No, unless determined necessary by health-care provider ⁴	Not applicable	Yes, but schools are not required to report	-Use standard precautions ⁵ -Educate adolescents about viral transmission through sexual contact and sharing of equipment for injection -Teach effective hand washing
Amebiasis	-Eating fecally-contaminated food or drinking fecally-contaminated water	Range 2-4 weeks	-Intestinal disease can vary from asymptomatic to acute dysentery with bloody diarrhea, fever, and chills	Yes	Treatment has begun	Yes	-Teach effective hand washing
Campylobacteriosis	-Eating fecally-contaminated food	Range 1-10 days Commonly 2-5 days	-Diarrhea, abdominal pain, fever, nausea, vomiting	Yes	Diarrhea free ⁶ and fever free ⁶	Yes	-Teach effective hand washing
Chickenpox (Varicella) (also see Shingles)	-Contact with the chickenpox rash -Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 10-21 days Commonly 14-17 days	-Fever and rash can appear first on head and then spread to body -Usually two or three crops of new blisters that heal, sometimes leaving scars -Disease in vaccinated children can be mild or absent of fever with few lesions, which might not be blister-like	Yes	Either 1) lesions are dry or 2) lesions are not blister-like and 24 hours have passed with no new lesions occurring	Yes	-Vaccine available and required ⁷ -Pregnant women who have been exposed should consult their physician
Common Cold	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs -Direct contact with respiratory secretions from an infected person -Touching a contaminated object then touching mouth, nose, or eyes	Range 1-5 days Commonly 2 days	-Runny nose, watery eyes, fatigue, coughing, and sneezing	No, unless fever	Fever free ⁶	No	-Teach effective hand washing ⁸ and good respiratory hygiene and cough etiquette ⁸ -Colds are caused by viruses; antibiotics are not indicated
Conjunctivitis, Bacterial or Viral (Pink Eye)	-Touching infected person's skin, body fluid, or a contaminated surface	Bacterial: Range 1-3 days Viral: Range 12 hours to 12 days	-Red eyes, usually with some discharge or crusting around eyes	Yes	Permission and/or permit is issued by a physician or local health authority ⁹ or until symptom free	No	-Teach effective hand washing ⁸ -Allergic conjunctivitis is not contagious and can be confused with bacterial and viral conjunctivitis
Coxsackie Virus Diseases (Hand, Foot, & Mouth Disease)	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs -Touching feces or objects contaminated with feces, then touching mouth	Range 3-5 days	-Rash in mouth, hands (palms and fingers), and feet (soles)	No, unless fever	Fever free ⁶	No	-Teach effective hand washing ⁸ and use standard precautions ⁵
Cryptosporidiosis	-Eating fecally-contaminated food or drinking fecally-contaminated water	Range 1-12 days Commonly 7 days	-Diarrhea, which can be profuse and watery, preceded by loss of appetite, vomiting, abdominal pain -Infected persons might not have symptoms but can spread the infection to others	Yes	Diarrhea free ⁶ and fever free ⁶	Yes	-Teach effective hand washing ⁸
Cytomegalovirus (CMV) Infection	-Mucous membrane contact with saliva and urine	Range unknown under usual circumstances	-Usually only fever	No, unless fever	Fever free ⁶	No	-Teach effective hand washing ⁸ and use standard precautions ⁵ -Pregnant women who have been exposed should consult their physician
Diarrhea	-Eating fecally-contaminated food or drinking fecally-contaminated water, or having close contact with an infected person	Variable	-Three or more episodes of loose stools in a 24 hour period	Yes	Diarrhea free ⁶	Yes, for certain conditions ³	-A variety of bacterial, viral, and parasitic agents can cause diarrhea -Teach effective hand washing ⁸
Escherichia coli (E. coli) Infection, Shiga Toxin-Producing	-Eating fecally-contaminated food or drinking fecally-contaminated water, or having close contact with an infected person	Range 1-10 days Commonly 3-4 days	-Profuse, watery diarrhea, sometimes with blood and/or mucus, abdominal pain, fever, vomiting	Yes	Diarrhea free ⁶ and fever free ⁶	Yes, if Shiga toxin-producing	-Teach effective hand washing ⁸
Fever	-Variable by condition	Variable	-A temperature of 100° Fahrenheit (37.8° Celsius) or higher -Measure when no fever suppressing medications are given	Yes	Fever free ⁶	No	-Children should not be given aspirin for symptoms of any viral disease, confirmed or suspected, without consulting a physician
Fifth Disease (Human Parvovirus)	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 4-20 days	-Redness of the cheeks and body -Rash can reappear -Fever does not usually occur	No, unless fever	Fever free ⁶	No	-Pregnant women who have been exposed should consult their physician -Teach effective hand washing ⁸ and good respiratory hygiene and cough etiquette ⁸
Gastroenteritis, Viral	-Eating fecally-contaminated food or drinking fecally-contaminated water, or having close contact with an infected person	Range a few hours to months Commonly 1-3 days	-Nausea and diarrhea -Fever does not usually occur	Yes	Diarrhea free ⁶ and fever free ⁶	No	-Teach effective hand washing ⁸ -Can spread quickly in child-care facilities
Giardiasis	-Close contact with an infected person, drinking fecally-contaminated water	Range 3-25 days or longer Commonly 7-10 days	-Nausea, bloating, pain, and foul-smelling diarrhea; can recur several times over a period of weeks	Yes	Diarrhea free ⁶	No	-Treatment is recommended -Teach effective hand washing ⁸ -Can spread quickly in child-care facilities
Head Lice (Pediculosis)	-Direct contact with infected persons and objects used by them	Commonly 7-10 days	-Itching and scratching of scalp -Presence of live lice or pinpoint-sized white eggs (nits) that will not flick off the hair shaft	No	Not applicable	No	-Treatment is recommended -Teach importance of not sharing combs, brushes, hats, and coats -Check household contacts for evidence of infestation
Hepatitis A	-Touching feces or objects contaminated with feces, then touching mouth	Range 15-50 days Commonly 25-30 days	-Most children have no symptoms; some have flu-like symptoms or diarrhea -Adults can have fever, fatigue, nausea and vomiting, anorexia, and abdominal pain -Jaundice, dark urine, or diarrhea might be present	Yes	One week after onset of symptoms	Yes, within one work day	-Vaccine available and required ⁷ -Teach effective hand washing ⁸ -Infected persons should not have any food handling responsibilities
Hepatitis B	-Direct contact with blood and body fluids	Range 2 weeks-9 months Commonly 2-3 months	-Gradual onset of fever, fatigue, nausea, or vomiting, followed by jaundice -Frequently asymptomatic in children	No	Not applicable	Yes, acute only	-Vaccine available and required ⁷ -Do not share personal hygiene items -Use standard precautions ⁵ -Educate adolescents about viral transmission through sexual contact and sharing of equipment for injection
Herpes Simplex (Cold Sores)	-Touching infected person's skin, body fluid, or a contaminated surface	First infection, 2-17 days	-Blisters on or near lips that open and become covered with a dark crust -Recurrences are common	No	Not applicable	No	-Teach importance of good hygiene -Avoid direct contact with lesions -Antivirals are sometimes used
Impetigo	-Touching an infected person's skin, body fluid or a contaminated surface -Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Variable Commonly 4-10 days	-Blisters on skin (commonly hands and face) which open and become covered with a yellowish crust -Fever does not usually occur	No, unless blisters and drainage cannot be contained and maintained in a clean dry bandage	Blisters and drainage can be contained and maintained in a clean dry bandage	No	-Teach effective hand washing ⁸
Infections (Wound, Skin, or Soft Tissue)	-Touching infected person's skin, body fluid, or a contaminated surface	Variable	-Draining wound	None, unless drainage from wounds or skin and soft tissue infections cannot be contained and maintained in a clean dry bandage	Drainage from wounds or skin and soft tissue infections can be contained and maintained in a clean dry bandage	No	-Restrict from activities that could result in the infected area becoming exposed, wet, soiled, or otherwise compromised -Do not share personal care items -Disinfect reusable items -Use proper procedures for disposal of contaminated items
Influenza (Flu)	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs -Direct contact with respiratory secretions from an infected person -Touching a contaminated surface then touching mouth, nose, or eyes	Range 1-4 days	-Rapid onset of fever, headache, sore throat, dry cough, chills, lack of energy, and muscle aches -Children can also have nausea, vomiting, or diarrhea	Yes	Fever free ⁶	No, except for pediatric influenza deaths, novel influenza, or outbreaks ⁹	-Vaccine available and recommended ⁷ annually for all persons aged 6 months and older -Teach effective hand washing ⁸ and good respiratory hygiene and cough etiquette ⁸
Measles (Rubeola)	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 7-21 days Commonly 10-12 days	-Fever, followed by runny nose, watery eyes, and dry cough -A blotchy red rash, which usually begins on the face, appears between the third and seventh day	Yes	Four days after onset of rash	Yes, call immediately	-Vaccine available and required ⁷ -Pregnant women who have been exposed should consult their physician
Meningitis, Bacterial	-Direct contact with respiratory secretions from an infected person -Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Variable Commonly 2-10 days	-Sudden onset of high fever and headache -May have stiff neck, photophobia, and/or vomiting	Yes	Written permission and/or permit is issued by a physician or local health authority ⁹	Yes, for certain pathogens ⁹ and outbreaks ⁹	-Vaccine available and required ⁷ for Haemophilus influenzae type B, meningococcal disease, and pneumococcal disease -Teach effective hand washing ⁸ and good respiratory hygiene and cough etiquette ⁸ -Only a laboratory test can determine if meningitis is bacterial
Meningitis, Viral (Aseptic Meningitis)	-Varies by virus causing illness -May include: • Direct contact with respiratory secretions from an infected person • Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs • Touching feces or objects contaminated with feces or virus, then touching mouth	Variable Commonly 2-10 days	-Sudden onset of fever and headache -May have stiff neck, photophobia, and/or vomiting	No, unless fever	Fever free ⁶	Yes, for certain pathogens ⁹ and outbreaks ⁹	-Teach effective hand washing ⁸ and good respiratory hygiene and cough etiquette ⁸ -Viral meningitis is caused by viruses; antibiotics are not indicated -Only a laboratory test can determine if meningitis is viral
Meningococcal Infections (Meningitis and Blood Stream Infections caused by Neisseria meningitidis)	-Direct contact with respiratory secretions from an infected person -Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 2-10 days Commonly 3-4 days	-Sudden onset of fever, intense headache, nausea, and often vomiting, stiff neck, and photophobia -May have a reddish or purplish rash on the skin or mucous membranes	Yes	Until effective treatment and approval by health-care provider ⁴	Yes, call immediately	-Vaccine available and required ⁷ -Prophylactic antibiotics might be recommended for close contacts -In an outbreak, vaccine might be recommended for persons likely to have been exposed
Mononucleosis Infections (Epstein Barr Virus)	-Spread by oral route through saliva, e.g., kissing, mouthing toys, etc.	Commonly 30-50 days	-Variable -Infants and young children are generally asymptomatic -Symptoms, when present, include fever, fatigue, swollen lymph nodes, and sore throat	Yes	Physician approval or until fever free ⁶	No	-Minimize contact with saliva and/or nasal discharges -Teach effective hand washing ⁸ -Sanitize surfaces and shared items -No athletic sports without health-care provider approval
Mumps	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 12-25 days Commonly 14-18 days	-Swelling beneath the jaw in front of one or both ears	Yes	Five days from the onset of swelling	Yes	-Vaccine available and required ⁷
Otitis Media (Earache)	-Can follow an infectious condition, such as a cold, but not contagious itself	Variable	-Fever, ear pain	No, unless fever	Fever free ⁶	No	-Antibiotics are indicated only for acute otitis media
Pertussis (Whooping Cough)	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 4-21 days Commonly 7-10 days	-Low-grade fever, runny nose, and mild cough lasting 1-2 weeks, followed by coughing fits, "whooping" sound followed on inspiration, and often vomiting after coughing	Yes	Completion of five consecutive days of appropriate antibiotic therapy	Yes, within one work day	-Vaccine available and required ⁷ -Teach respiratory hygiene and cough etiquette ⁸ -Vaccine and/or antibiotics might be recommended for contacts
Pharyngitis, Nonstreptococcal (Sore Throat)	-Not always contagious -If contagious, transmission varies by pathogen -Can include: • Direct contact with respiratory secretions from an infected person • Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs • Touching feces or objects contaminated with feces or virus, then touching mouth	Variable	-Fever, sore throat, often with large, tender lymph nodes in neck	No, unless fever	Fever free ⁶	No	-Non-streptococcal pharyngitis is caused by a virus; antibiotics are not indicated -Teach effective hand washing ⁸ and good respiratory hygiene and cough etiquette ⁸
Pinworms	-Touching feces or objects contaminated with feces, then touching mouth	Range 2 weeks -> 2 months Commonly 4-6 weeks	-Perianal itching	No	Not applicable	No	-Treatment recommended -Teach effective hand washing ⁸ -Check household contact for infestations
Ringworm (Body or Scalp)	-Touching an infected person's skin, body fluid, or a contaminated surface	Range 4-21 days	-Slowly spreading, flat, scaly, ring-shaped lesions on skin -Margins can be reddish and slightly raised -May cause bald patches	No, unless infected area cannot be completely covered by clothing or a bandage	Infected area can be completely covered by clothing or a bandage or treatment has begun	No	-Ringworm is caused by a fungus -Treatment is recommended -Teach importance of not sharing combs, brushes, hats, and coats
Respiratory Syncytial Virus (RSV)	-Direct or close contact with respiratory and oral secretions	Range 2-8 days Commonly 4-6 days	-Mostly seen in children younger than 2 years of age -Cold-like signs or symptoms, irritability, and poor feeding -May present with wheezing and episodes of turning blue when coughing	No, unless fever	Fever free ⁶	No	-Teach effective hand washing ⁸ and good respiratory hygiene, and cough etiquette ⁸
Rubella (German Measles)	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 12-23 days Commonly 14-18 days	-Cold-like symptoms, swollen and tender glands at the back of the neck, fever, changeable pink rash on face and chest	Yes	Seven days after onset of rash	Yes, within one work day	-Vaccine available and required ⁷ -Pregnant women who have been exposed should consult their physician
Salmonellosis	-Eating fecally-contaminated food or drinking fecally-contaminated water or having close contact with an infected person	Range 6-72 hours Commonly 12-36 hours	-Fever, abdominal pain, diarrhea	Yes	Diarrhea free ⁶ and fever free ⁶	Yes	-Teach effective hand washing ⁸
Scabies	-Touching infected person's skin, body fluid, or a contaminated surface	First infection 2-6 weeks	-Small, raised and red bumps or blisters on skin with severe itching, often on thighs, arms, and webs of fingers	Yes	Treatment has begun	No	-Teach importance of not sharing clothing -Can have rash and itching after treatment but will subside
Shigellosis	-Eating fecally-contaminated food, drinking fecally-contaminated water, or having close contact with an infected person	Range 1-7 days Commonly 2-3 days	-Fever, vomiting, diarrhea, which can be bloody	Yes	Diarrhea free ⁶ and fever free ⁶	Yes	-Teach effective hand washing ⁸ -Can spread quickly in child-care facilities
Shingles	-Contact with fluid from blisters either directly or on objects recently in contact with the rash	Variable, often activated by aging, stress, or weakened immune system. Only occurs in people who have previously had chickenpox	-Area of skin, usually on one side of the face or body, has tingling or pain followed by a rash that may include fluid filled blisters -The blisters scab over in 7-10 days	Yes, if the blisters cannot be covered by clothing or dressing	Lesions are dry or can be covered	No	-Contact with the shingles rash can cause chickenpox in a child that has not had chickenpox -Shingles vaccine is available for persons 50 years and older
Sinus Infection	-Can follow an infectious condition, such as a cold, but not contagious	Variable	-Fever, headache, greenish to yellowish mucus for more than one week	No, unless fever	Fever free ⁶	No	-Antibiotics are indicated only for long-lasting or severe sinus infections
Streptococcal Sore Throat and Scarlet Fever	-Direct contact with respiratory secretions from an infected person -Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Range 1-3 days	-Fever, sore throat, often with large, tender lymph nodes in neck -Scarlet fever-producing strains of bacteria cause a fine, red rash that appears 1-3 days after onset of sore throat	Yes	Effective antibiotic treatment for 24 hours and fever free ⁶	No	-Streptococcal sore throat can only be diagnosed with a laboratory test -Teach effective hand washing ⁸ and good respiratory hygiene and cough etiquette ⁸
Tuberculosis, Pulmonary	-Breathing in respiratory droplets containing the pathogen after an infected person exhales, sneezes, or coughs	Variable	-Gradual onset of fatigue, anorexia, fever, failure to gain weight, and cough	Yes	Antibiotic treatment has begun AND a physician's certificate or health permit obtained	Yes, within one work day	-Teach good respiratory hygiene and cough etiquette ⁸
Typhoid Fever (Salmonella Typhi)	-Eating fecally-contaminated food or drinking fecally-contaminated water	Range 3->60 days Commonly 8-14 days	-Sustained fever, headache, abdominal pain, fatigue, weakness	Yes	Diarrhea free ⁶ and fever free ⁶ , antibiotic treatment has been completed and 3 consecutive stool specimens have tested negative for S. Typhi	Yes	-Teach effective hand washing ⁸ -Disease is almost always acquired during travel to a foreign country

Footnotes

¹Criteria include exclusions for conditions specified in the Texas Administrative Code (TAC), Rule 89.77, Diseases Requiring Exclusion from Schools. A school or child-care facility administrator might require a note from a parent or health-care provider for readmission regardless of the reason for the absence. Parents in schools must follow school or district policies and contact them if there are questions. For day-care facilities, follow your facility's policies, contact your local Child Care Licensing inspector or contact your local Licensing office. A list of the offices is available at http://www.dhs.state.tx.us/Child_Care/Local_Child_Care_Licensing_Offices or refer to TAC Chapters 8744, 746, and 747.

²Report confirmed and suspected cases to your local or regional health department. Report within one week—unless required to report earlier as noted in this chart. You can call (800) 705-8868 or locate appropriate reporting fax and phone numbers for your county at <http://www.dhs.state.tx.us/idcu/investigation/conditions/contacts>.

³An up-to-date list of Texas reportable conditions and reporting forms are available at <http://www.dhs.state.tx.us/idcu/investigation/conditions/>.

⁴Health-care provider - physician, local health authority, advance practice nurse, physician's assistant.

⁵Diarrhea free for 24 hours without the use of diarrhea suppressing medications. Diarrhea is 3 or more episodes of loose stools in a 24 hour period.

⁶Fever free for 24 hours without the use of fever suppressing medications. Fever is a temperature of 100° Fahrenheit (37.8° Celsius) or higher.

⁷Many diseases are preventable by vaccination, which might be required for school or day-care attendance. The current vaccine requirements can be found at <http://www.dhs.state.tx.us/immunize/school/> or call (800) 252-9152.

⁸Local Health Authority: A physician designated to administer state and local laws relating to public health:

(A) A local health authority appointed by the local government jurisdiction; or

(B) A regional director of the Department of State Health Services if no physician has been appointed by the local government.

⁹Outbreak/epidemic: The occurrence in a community or region of a group of illnesses of similar nature, clearly in excess of normal expectancy, and derived from a common or a propagating source.

Communicable Disease Notes

When a Communicable Disease is Suspected

- Separate the ill child from well children at the facility until the ill child can be taken home.
- Inform parents immediately so that medical advice can be sought.
- Adhere to the exclusion and readmission requirements provided on this chart.
- Observe the appearance and behavior of exposed children and be alert to the onset of disease.
- Pregnant women should avoid contact with individuals suspected of having chickenpox, cytomegalovirus, fifth disease, influenza, measles, and rubella. Seek medical advice if exposure occurs.
- In addition to the conditions described in this chart, the following symptoms might indicate an infectious condition; consider excluding or isolating the child:
 - Irritability
 - Difficulty breathing
 - Crying that doesn't stop with the usual comforting
 - Extreme sleepiness
 - Vomiting two or more times in 24 hours
 - Mouth sores

Hand Washing (<http://www.cdc.gov/handwashing/>)

- Encourage children and adults to wash their hands frequently, especially before handling or preparing foods and after wiping noses, diapering, using toilets, or handling animals.
- Wash hands with soap and water long enough to sing the "Happy Birthday" song twice.
- Sinks, soap, and disposable towels should be easy for children to use.
- If soap and water are not available, clean hands with gels or wipes with alcohol in them.

Diapering

- Keep diapering areas near hand washing areas.
- Keep diapering and food preparation areas physically separate. Keep both areas clean, uncluttered, and dry.
- The same staff member should not change diapers and prepare food.
- Cover diapering surfaces with intact (not cracked or torn) plastic pads.
- If the diapering surface cannot be easily cleaned after each use, use a disposable material such as paper on the changing area and discard the paper after each diaper change.
- Sanitize the diapering surface after each use and at the end of the day.
- Wash hands with soap and water or clean with alcohol-based hand cleaner after diapering.

Environmental Surfaces and Personal Items

- Regularly clean and sanitize all food service utensils, toys, and other items used by children.
- Discourage the use of stuffed toys or other toys that cannot be easily sanitized.
- Discourage children and adults from sharing items such as combs, brushes, jackets, and hats.
- Maintain a separate container to store clothing and other personal items.
- Keep changes of clothing on hand and store soiled items in a nonabsorbent container that can be sanitized or discarded after use.
- Provide a separate sleeping area and bedding for each child, and wash bedding frequently.

Respiratory Hygiene and Cough Etiquette (<http://www.cdc.gov/flu/protect/covercough.htm>)

- Provide facial tissue throughout the facility.
- Cover mouth and nose with a tissue when coughing or sneezing.
- If tissue is not available, cough or sneeze into upper sleeve, not hands.
- Put used tissue in the waste basket.
- Wash hands with soap and water or clean with alcohol-based hand cleaner after coughing or sneezing.

Standard Precautions

Because we do not always know if a person has an infectious disease, apply standard precautions to every person every time to assure that transmission of disease does not occur.

- Wear gloves for touching blood, body fluids, secretions, excretions, contaminated items, and for touching mucous membranes and non-intact skin.
- Use appropriate hand washing procedures after touching blood, body fluids, secretions, excretions, contaminated items, and immediately after removing gloves.
- Develop procedures for routine care, cleaning, and disinfection of environmental surfaces.

Immunizations

Child-care facilities and schools are required to have an immunization record on file for each child enrolled to ensure that each child has received age-appropriate immunizations. For immunization information, contact your local health department, call (800) 252-9152, or visit <http://www.dhs.state.tx.us/immunize/school/>.

Antibiotic Use

Antibiotics are not effective against viral infections. Because common colds and many coughs, runny noses, and sore throats are caused by viruses, not bacteria, they should not be treated with antibiotics. Even bacterial illnesses might not require antibiotic treatment. Except for conditions indicated in the readmission criteria, do not require proof of antibiotic treatment for readmission to school or day-care. Unnecessary or inappropriate antibiotic use can lead to the development of drug-resistant bacteria.

