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Preventing the Spread of Disease in Foster Homes

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Thank you for joining us to learn about preventing the spread of disease in foster homes...

Learning Goals

- To help foster caregivers understand the importance of preventing the spread of disease in foster homes
- To explain to foster caregivers how to prevent the spread of disease in foster homes
- To teach foster caregivers what fomites are and how to avoid disease transmission through fomites
- To educate foster caregivers on the proper way to put on and take off protective clothing and gloves



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Thank you for sharing your home with foster pets! Most of you probably have pets of your own, and have wondered how to keep them from getting sick if your foster pet becomes sick, and vice versa.

The goals of this class are...

To help foster caregivers understand the importance of preventing the spread of disease in foster homes...

To explain how to prevent the spread of disease in foster homes...

To teach foster caregivers what fomites are and how to avoid disease transmission through fomites...and...

To educate them on the proper way to put on and take off protective clothing and gloves.

Spread of Disease

- Pet to Pet
- Pets to People and vice versa
- Some infectious diseases are species specific, others are not



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Spread of disease can be from pet to pet...

Pets can also spread disease to people, and vice versa...

Some infectious diseases are species specific and cannot spread to a pet of a different species, nor to people, but others are not.

For example,...

Feline herpesvirus is specific to cats. It can be spread from cat to cat, causing upper respiratory disease, but dogs and people cannot get feline herpesvirus.

On the other hand, ringworm can jump between species and spread between cats, dogs, and people.

So, preventing the spread of disease in foster homes is also about protecting people.

Remember that children and immunocompromised individuals, such as HIV patients, or people undergoing chemotherapy are more susceptible to disease.

Increased Susceptibility to Disease in Shelter/Rescue Group Setting

- Animals coming in who:
 - May not have been vaccinated
 - May have decreased immunity
 - May have been exposed to infectious disease before intake



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Cats and dogs in an animal shelter or rescue group setting also have an increased susceptibility to disease, and there are many reasons why.

Many animals coming into animal shelters and rescue groups may not have been vaccinated before. Some are kittens and puppies who have not yet gotten their first vaccines. Others are adult animals who simply may never have been to a veterinarian, or have not been in a long time.

Since vaccination can prevent certain diseases and reduce the severity of others, a lack of vaccination increases a pet's susceptibility to disease.

There are animals entering shelters and rescues who may have decreased immunity. For example, kittens and puppies who are under 6 months of age have immature immune systems compared to adults, and any immunity they have from their mother's milk is wearing off or has already worn off.

Cats who are infected with Feline Leukemia Virus or Feline Immunodeficiency Virus are immunocompromised. Since decreased immunity causes a pet's body to have trouble fighting off infection, that means increased susceptibility to disease.

A shelter or rescue group has many animals coming in who may have been exposed to infectious disease before intake, but are not yet showing symptoms. A puppy could have been exposed to littermates who had parvovirus, and could seem fine for a couple days before breaking with diarrhea. A dog could have "kennel cough" bacteria or viruses before entering the shelter, but not show symptoms for several days. Then, by the time the dog shows symptoms, other dogs at the shelter have already been exposed and may become sick.

Increased Susceptibility to Disease in Shelter/Rescue Group Setting

- Stress can cause apparently healthy animals to start shedding infectious diseases that were dormant (inactive)
- Overcrowding makes it easier for disease to spread



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Stress is one of the most significant factors in disease susceptibility. Even the most well-run shelters are stressful. Dogs and cats are confined to a cage or kennel, surrounded by unfamiliar pets and people, and exposed to strange noises and new routines. They may be scared, upset, or bored.

Stress can cause apparently healthy animals to start shedding infectious diseases that were in their system, but dormant, or inactive; a very common example of this is herpesvirus, a cause of upper respiratory disease in cats. Stress can also make pets more likely to become sick if they're exposed to infectious disease.

When shelters or rescues operate beyond their physical and staffing capacities, overcrowding occurs. High numbers of animals, living in close proximity, make it much easier for disease to spread.

Take a look at these photos: If one of these kittens gets sick, there's a good chance that all of them will. Likewise, the dog kennels shown here allow for a lot of contact between dogs. If one of them gets "kennel cough", it will spread through that row of kennels very quickly.

Housing pets in foster homes greatly reduces stress and addresses overcrowding, decreasing the risk of a foster pet becoming sick.

Thank you again for being a foster caregiver, you are helping keep shelter and rescue pets healthier!



Test Your Knowledge!

Quiz - 2 questions

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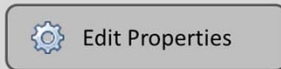
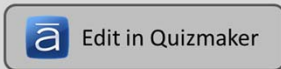
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New Foster Pets: The First Two Weeks

- This is the time that they are most likely to become sick
- Isolate them in an area of the home that is easy to clean and disinfect



Photo courtesy of the Humane Society for Southwest Washington, Vancouver, WA



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Even though the risk of getting sick is lower than it would be in a shelter or rescue setting, extra precautions should be taken during the first two weeks that new foster pets are in your home. This is the time that they are most likely to become sick, even if they initially appear healthy. It is best to isolate them in an area of the home that is easy to clean and disinfect. We will explain this in more detail later in the presentation.

Diseases Commonly Seen in Shelter/Rescue Pets

- **Most common**

- Feline Upper Respiratory Infection (URI)
- Canine Respiratory Disease Complex (“Kennel Cough”)

- **Less common**

- Feline panleukopenia virus
- Canine parvovirus
- Ringworm



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If foster pets *do* become sick, the most common conditions tend to be respiratory infections. The disease in cats is called “Feline Upper Respiratory Infection” – or just “URI” for short. In dogs, it’s called Canine Respiratory Disease Complex, or more commonly -- “Kennel Cough.” Symptoms may include sneezing, nasal discharge, eye discharge, congestion, and/or coughing.

Less common diseases are feline panleukopenia or canine parvovirus, and ringworm. Both feline panleukopenia and canine parvovirus can cause severe vomiting and diarrhea, both of which are important to address as quickly as possible.

Ringworm is not really a worm; it’s caused by a fungus. It can cause circular patches of hair loss, and occurs most often in kittens and cats. It is extremely contagious and difficult to control, so if you are concerned about it, you should contact your foster manager.

Diseases Commonly Seen in Shelter/Rescue Pets: Ease of Eradication from Environment Varies

- **Most common, easy to destroy**
 - Feline Upper Respiratory Infection (URI), except for calicivirus
 - Canine Respiratory Disease Complex (“Kennel Cough”)
- **Less common, difficult to eradicate**
 - Feline panleukopenia virus
 - Canine parvovirus
 - Ringworm



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These diseases vary in how easy they are to get rid of in the environment. For example, some viruses are easily killed by regular household cleaners, and others cannot be killed without using a special type of disinfectant or a dilution of household bleach. We cover this in more detail in the *Maddie's Cleaning and Disinfection in Foster Homes* flash class. A link to this class can be found in the Resources tab at the top right of your screen.

The good news is that the most common diseases tend to be easy to destroy. The viruses and bacteria that cause Feline URI and Canine “Kennel Cough” are easy to eliminate from the environment, with one exception: feline calicivirus.

If a cat with calicivirus sneezes on a wall, and that wall is not cleaned and disinfected, the calicivirus can live in the dried nasal discharge on the wall for up to a month.

Fortunately, the diseases that are difficult to eradicate from the environment are less common, and include feline panleukopenia virus, canine parvovirus, and ringworm. Feline panleukopenia virus and canine parvovirus can persist in the environment for years. Ringworm spores can also survive for years, tend to get everywhere, and it can be hard to get rid of them all.

We won't always know which infectious agents, if any, we are dealing with when a foster pet first starts showing symptoms. A puppy could simply have diarrhea from a diet change, or it could be the beginning of parvovirus. A cat could have a URI caused by herpesvirus, or it could be calicivirus. It is best to err on the side of caution, and take precautions to prevent the spread of disease. We'll talk about these precautions next...



Test Your Knowledge!

Quiz - 2 questions

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How to Prevent the Spread of Infectious Disease

Once you have clicked through each prevention method below,
click the Next button to continue on in this presentation

Vaccinate Pets

Isolate Pets Who Have Infectious Disease

Avoid Disease Transmission Through the Air

Avoid Disease Transmission Through Fomites

Clean and Disinfect



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Preventing the Spread of Disease in Foster Homes

We need to take five different precautions to prevent the spread of infectious disease. Click on each one below to learn more.

Vaccinate Pets

- One of most effective ways of preventing the spread of disease
- Foster pets should be vaccinated immediately upon arrival to an animal shelter or rescue group
- Resident pets should be current on their vaccinations



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One of the most effective ways to prevent the spread of disease between the same species is to vaccinate pets.

Some vaccines provide essentially *full protection* against disease. For example, in adult cats, a single dose of a modified live vaccine can completely protect against feline panleukopenia within 1-3 days; the same is true for canine parvovirus in adult dogs.

If an adult cat or dog is fully protected against a certain disease, and they get exposed to it, they will not get sick, and will not spread it to others.

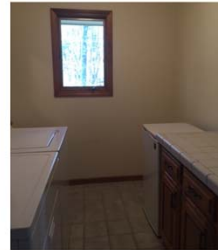
Some vaccines provide *partial* protection against disease. These vaccines decrease the chance that a pet will catch an infectious disease, and they decrease the *severity* of disease if a pet does get sick. Vaccines for upper respiratory infections are a good example. Cats and dogs who have been vaccinated can still *get* sick, but the symptoms will not be as severe. They will recover faster, which means they may be contagious to others, but for shorter periods of time.

Foster pets should be vaccinated, ideally immediately upon arrival to an animal shelter or rescue group, before they go into their new foster homes. This will help protect them from infectious disease. However, they can still become sick if they were exposed to infectious disease prior to intake or while at the animal shelter or rescue group.

Resident pets in a foster home should also be current on their vaccinations before foster pets are welcomed into the home.

Isolate Pets Who Have Infectious Disease

- Sick pets should be isolated in an area of the home that is easily cleaned and disinfected
 - Spare bathroom
 - Utility room
 - Clutter-free
 - Supplies kept in isolation should be easy to clean and disinfect
 - See Maddie's Cleaning and Disinfection in Foster Homes flash class



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Preventing the Spread of Disease in Foster Homes

To help prevent the spread of disease from sick pets to healthy ones, isolate pets who have infectious disease. Sick pets should be isolated in an area of the home that is easily cleaned and disinfected. A spare bathroom or utility room is a great choice, and should be clutter-free. The room should contain the supplies being used for the sick pet, nothing else. These supplies should be easy to clean and disinfect.

When we refer to an area of the home and supplies that are easy to clean and disinfect, we're talking about surfaces and objects that can be scrubbed and bleached without causing damage.

For more information on how the type of housing and supplies chosen affects the ease and effectiveness of cleaning and disinfection, please see the *Maddie's Cleaning and Disinfection in Foster Homes* flash class. You can find a link to this class in the Resources tab at the top right of your screen.

Avoid Disease Transmission Through the Air

- Diseases like “kennel cough” in dogs
 - Viruses and bacteria are coughed out and become airborne
- Keep doors closed to isolation areas
- Keep healthy pets as far away from the isolation area as possible



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Some infectious diseases can be transmitted through the air. “Kennel Cough,” in dogs is a good example. Viruses and bacteria are coughed out, become airborne, and can travel long distances to be inhaled by a healthy dog. This process is called aerosolization. This is not as much of a concern with cats with upper respiratory infections, as they typically don’t cough. Even if they do cough, their lungs are too small to generate significant aerosolization.

To help avoid disease transmission through the air, keep the doors closed to isolation areas and keep healthy pets as far away from the isolation area as possible.

Avoid Disease Transmission Through Fomites

- Fomite
 - A nonliving object that can carry infectious organisms on its surface



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A fomite is a nonliving object that can carry infectious organisms on its surface. A *lot* of things can be fomites.

Let's talk about fomites in more detail, and then we'll explain how to avoid disease transmission through them.

Fomites

- Anything with traces of a sick pet's body secretions or fur
- All surfaces and objects that a sick pet has come into direct contact with
 - Floors, Walls
 - Bedding
 - Toys
 - Food and water bowls
 - Crates and Pens
 - Collars, Leashes
 - Scales
 - YOUR hands and clothing!



Photo courtesy of the Humane Society for Southwest Washington, Vancouver, WA



Photo courtesy of Humane Society Silicon Valley, Milpitas, CA



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Fomites can be anything with traces of a sick pet's body secretions or fur on them. Body secretions include nasal discharge, saliva, vomit, diarrhea and blood.

Essentially, this means that fomites are all surfaces and objects that a sick pet has come into direct contact with...

Floors, walls, bedding, toys, food and water bowls, crates and pens, collars, leashes, scales, and – yes – YOUR hands and clothing!!

Fomites

- Any surface or object touched after handling a sick pet
 - Doorknobs
 - Light switches
 - Stair railing
 - Stepstools
 - Furniture
 - Writing pens
 - Thermometers
 - Etc.



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Since people's hands and clothing can be fomites, ...

Any surface or object that you touch after handling a sick pet but before hand washing becomes a fomite too....

Doorknobs, light switches, stair railing, stepstools, furniture, writing pens, thermometers...you get the picture!

Fomites

- Items used for cleaning and disinfection

- Brooms, mops
- Mop buckets
- Sponges, rags
- Can still be fomites even if they contain a disinfectant



- Dirty laundry and trash

- Transport them carefully
- Wear gloves
- Consider double bagging



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Preventing the Spread of Disease in Foster Homes

It may sound counterintuitive, but fomites can also be items used for cleaning and disinfection... like brooms, mops, mop buckets, sponges, and rags.

These items can still be fomites even if they contain a disinfectant such as diluted bleach. Debris, light, and water can inactivate the disinfectant.

Dirty laundry and trash often contain the most fomites of all, so transport them carefully. Wear gloves, and consider double bagging dirty laundry and trash. Someone can stand outside the doorway of an isolation room holding a clean garbage bag while the person standing inside the isolation area places a bag of dirty laundry or trash inside the clean garbage bag.

Avoid Disease Transmission Through Fomites

- Use personal protective equipment (PPE)
 - Protective clothing, gloves, footwear
- Traffic management
 - Limit the number of people going in and out of an isolation area
 - Don't go into the isolation area more frequently than necessary
 - Place signs on doors as reminders



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Preventing the Spread of Disease in Foster Homes

Now that we have a good understanding of what fomites are, let's go back to how to avoid disease transmission through them...

Use personal protective equipment -- PPE, for short. This means protective clothing, gloves, and footwear. It is important to understand how to put them on and take them off properly. We will explain how to do this later in the presentation.

Traffic management is important too. Limit the number of people going in and out of an isolation area, and don't go in more frequently than necessary to properly care for the medical and behavioral needs of your pet. It's a good idea to place signs on doors as reminders.

Avoid Disease Transmission Through Fomites

- Dog walking
 - Find shortest path from the isolation area to the outdoors
 - Smaller dogs can be carried outside
 - Keep your sick dog on a leash
 - Confine other pets temporarily
 - Designate one small area for a “potty spot” that cannot be accessed by other dogs
- Clean and disinfect all possible fomites



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Preventing the Spread of Disease in Foster Homes

Dog walking can be challenging. For puppies, you can use pee pads to avoid taking them outside. For adult dogs, there is no choice but to walk them. Find the shortest path from the isolation area to the outdoors.

Smaller dogs can be carried outside. Keep your sick dog on a leash, even if carried outside. Confine other pets behind closed doors temporarily to keep them out of the way.

Designate one small area outdoors for a “potty spot” outside that cannot be accessed by other dogs. This could be an area outside of a fenced in backyard, or a separate fenced in area. Once your sick dog has been walked, clean and disinfect the pathway from the isolation area to the outdoors.

One of the most important ways to avoid disease transmission through fomites is to clean and disinfect all possible fomites.

Let's talk about this some more...

Clean and Disinfect

- **Cleaning:**
 - Removal of dirt and debris
 - Washing with soap or detergent and water
 - Mechanically removes germs, but does not kill them
- **Disinfection:**
 - Application of any agent that kills germs



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To get started, it's essential to understand the difference between cleaning and disinfection.

Cleaning is the removal of dirt and debris – like cat litter or pieces of food -- followed by washing with soap or detergent and water. Cleaning mechanically removes viruses, bacteria, and other germs, but it does not kill them, no matter how hard you scrub. This is where disinfection comes in.

Disinfection is the application of any agent, such as diluted bleach, that actually kills the germs.

Lastly, remember that cleaning always comes first. You can't disinfect a surface until you clean it.

Clean and Disinfect

- Important to clean and disinfect all possible fomites
- Especially if a pet has an infectious disease that is difficult to get rid of in the environment
 - Feline panleukopenia
 - Canine parvovirus
 - Feline calicivirus
 - Ringworm
- See the [Maddie's Cleaning and Disinfection in Foster Homes](#) flash class



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It is very important to clean and disinfect all possible fomites to help prevent the spread of disease in the foster home.

This is especially true if a foster pet or resident pet has an infectious disease that is difficult to get rid of in the environment, like feline panleukopenia virus, canine parvovirus, feline calicivirus, and ringworm, as we discussed previously.

For how-to instructions, see the *Maddie's Cleaning and Disinfection in Foster Homes* flash class. You can find a link to this class in the Resources tab at the top right of your screen.

Personal Protective Equipment (PPE)

- Smocks, coveralls, gowns
- Disposable nitrile or latex exam gloves
- Rubber boots or disposable booties
- Do not wear it outside of the isolation area



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Preventing the Spread of Disease in Foster Homes

Remember that the use of personal protective equipment, PPE, is one way of avoiding the spread of disease through fomites. PPE is protective clothing, gloves, and footwear.

Protective clothing includes smocks, coveralls, or gowns. They should be long sleeved, and ideally long enough to reach mid-calf or ankle level.

Protective gloves are disposable nitrile or latex exam gloves.

Protective footwear may be rubber boots or disposable booties.

Some animal shelters and rescue groups may have formal PPE that they can give to foster parents, but PPE does not have to be fancy, nor expensive.

Protective clothing can be clothing that is commonly found around the house, like painting smocks or old bathrobes that are worn backwards with the buttons or ties in the back instead of the front.

Disposable exam gloves can be found in the first aid section of local pharmacies or in beauty supply stores. Rubber rain or barn boots are also something that many people already have around the house.

Regardless of the type of PPE you find to use, do not wear it outside of the isolation area. Put it on in front of the isolation area and then take it off in front of the isolation area. The only exception would be to carry or walk a dog outside.

Personal Protective Equipment (PPE): Putting It On

- Put on rubber boots or booties
- Put on the gown, fasten it in the back
- Put gloves on, with gloves covering the ends of the gown sleeves



[Click above to start video](#)



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It is important to understand how to properly put on PPE. Put on the rubber boots or booties first. Then put on the gown, and fasten it in the back. Then put gloves on, with the gloves covering the ends of gown sleeves.

Here is a nursing video that shows how to properly put on a gown and gloves...
(Play video).

Personal Protective Equipment (PPE): Taking It Off

1. Gloves first
2. Gown next
3. Boots or booties last



[Click Above to Start Video](#)



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Taking off PPE must be done very carefully to avoid contaminating your underlying clothing and hands with fomites from your sick pet.

Gloves should be taken off first, the gown next, and the boots or booties last.

Here is a nursing video that shows how to remove the gloves and one way of removing the gown.... (Play first video)...

This video shows an alternative way of removing the gown.... (Play second video)...

Personal Protective Equipment (PPE): Taking It Off

Alternative way to take off Gown



[Click Above to Start Video](#)



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Taking off PPE must be done very carefully to avoid contaminating your underlying clothing and hands with fomites from your sick pet.

Gloves should be taken off first, the gown next, and the boots or booties last.

Here is a nursing video that shows how to remove the gloves and one way of removing the gown.... (Play first video)...

This video shows an alternative way of removing the gown.... (Play second video)...



Test Your Knowledge!

Quiz - 4 questions

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Helpful Tips

- Consider designating one person to care for sick pets
- If that is not possible, take care of the healthy pets first before handling the sick ones
- Wear two pairs of disposable exam gloves
 - Put on first pair before putting on boots or booties
 - Take off first pair after removing boots or booties
- Wash hands frequently



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Preventing the Spread of Disease in Foster Homes

Here are some helpful tips...

Consider designating just one person in the household to care for sick pets. That person should avoid handling healthy pets in the household. If that is not possible, take care of the healthy pets first before handling the sick ones.

Wear two pairs of disposable exam gloves instead of just one pair. This will help keep hands clean and disease-free. Put on the first pair before putting on the boots or booties. Take off the first pair after removing the boots or booties.

Don't forget to wash your hands frequently. Hands should always be washed after removing PPE, even if you wore a second pair of disposable gloves.

Conclusion

- Foster pets sometimes bring infectious diseases into a foster home
- To prevent the spread of disease to other pets and people
 - Vaccinate all pets
 - Isolate pets who have infectious diseases
 - Be diligent about cleaning and disinfection
 - Avoid disease transmission through the air or via fomites



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Preventing the Spread of Disease in Foster Homes

Foster pets sometimes bring infectious diseases into a foster home, some of which are difficult to get rid of in the environment. These infectious diseases can be spread to other pets and people. To help prevent this, it is important to vaccinate all pets, isolate pets who have infectious diseases, be diligent about cleaning and disinfection, and avoid disease transmission through the air or via fomites.

Thank you for fostering!!!
And special thanks to Dr. Susan Krebsbach
and Dr. Mike Greenberg for their reviews



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Thank you for watching and thank you for fostering!! You are making a huge difference in the lives of foster pets. We wish you and your foster pets all the best!