

Parvovirus in a home environment

Oh no! You've fostered an animal with parvovirus in your home, now what? Dr. Ferrell breaks down the steps that you can take to minimize risk for future pets in the household.

Question:

I am a professional puppy trainer and I recently took in three 8 week-old puppies that had spent a week in isolation at a local shelter. I could not stand to see them there so I brought them to my house.

I had them for about 48 hours when they started to seem a little off; loose stool, lethargic, then they started vomiting and refusing food and water.

I took them in to see the veterinarian and they tested positive for parvovirus. Thankfully, we caught it early and they were back to their normal selves within less than 24 hours.

My current concern is that I now have parvo in my environment. I have bleached my interior and clothes and have thrown away a TON of things that I feared I could not properly sanitize. I have used Rescue on my back yard once.

Prior to realizing they had parvovirus, the pups had pooped and vomited on concrete in their short stay here, and I cleaned up immediately each time. However, I had not disinfected and just used household soap, but there was often a bit of residue, which I rinsed and ended up draining into my grass.

I am supposed to have two 8 week old puppies in the coming months and I am worried!

Will the Rescue work on killing the virus in the dirt?

Please advise, I have so many questions and concerns!

Answer:

Thank you for your inquiry about canine parvovirus. As it sounds like you are well aware, canine parvovirus can be very difficult to completely remove from certain environments. While there is no way to completely eliminate risk, there are some steps you can take to minimize it if you must take puppies into your home.

In regards to inside the home, surfaces should be cleaned in a three-step process;

1. Removing of all organic material/debris, such as feces.
2. Applying a detergent product,
3. Applying a disinfectant

We recommend using Rescue (Accelerated Hydrogen Peroxide) as it can act as both a detergent and a disinfectant which has been proven parvocidal by peer reviewed studies. Rescue can maintain efficacy in presence of organic material and has good penetration into porous surfaces, which makes it a good choice for the types of surfaces you tend to find in a home environment. Therefore it allows you to combine steps 2 and 3 noted above. This can be used on soft surfaces such as carpets and furniture as well as hard surfaces. Always test it on a small area first when using it on fabrics to check for discoloration. We recommend using a concentration of 1:16 (8oz/gal) with at least 5 minutes of wet contact time, or 1:32 (4oz/gal) with at least 10 minutes of wet contact time. For areas or surfaces that are hard to completely clean of organic material, err on the side of using a higher concentration and longer contact time – for instance, on a soiled area of carpet, provided Rescue does not cause staining, you could use 1:16 for ten minutes or even longer.

Where Rescue is not available, bleach can be used as it is also parvocidal under the right circumstances, but we do not prefer it as it requires use of a detergent beforehand and will get deactivated by any organic material. Please note as well that while many Quaternary Ammonium products will be labeled for use against parvovirus, but they have been proven to be ineffective in independent studies. More information can be found in [Parvovirus Guidebook](#).

Steam cleaning can be considered as well, though appropriate temperatures (75C or 167F) might be hard to achieve with household steamers.

Anything that can be laundered should be washed in hot water with bleach in a washer that is not overfilled, then dried in a

dryer on the highest heat setting or if dried on a clothesline, dried outside in direct sunlight.

As an extra measure of safety, restricting puppies to easily cleanable/disinfectable areas might be an consideration for future litters of puppies if it is feasible in your home environment. This would reduce the difficulty of future decontamination as well as lower the risk from the recent episode.

Parvovirus can be difficult to eliminate from outdoor yards, but some steps can help significantly decrease the infectious dose, and therefore decrease the risk. Parvovirus can survive for many years in an ideal environment, for example damp soil in dark places, such as areas below porches or where plumbing is leaking. If these areas are contaminated, you might want to consider fencing them off if possible. However, the virus' longevity is greatly reduced when kept in dry areas and with exposure to sunlight - desiccation and ultraviolet light are good disinfectants in themselves. . Furthermore, [a recent study has shown](#) that Rescue maintains a good activity when faced with heavy contamination of organic material, which could be extrapolated to its use in outdoor yards. Therefore, contaminated yards should be flushed with water first, followed by an application of accelerated hydrogen peroxide product which should help significantly reduce the viral load and therefore risk for future animals using the yards. Removing tarps or coverings that would reduce exposure to sunlight will also help decrease the risk.

For puppies under 5 months (20 weeks) of age, we recommend starting DA2PP vaccination as early as 4 weeks of age and repeating every 2 weeks until the age of 20 weeks while they are in a high-risk environment. This usually refers to a shelter environment, but can also be applied to a foster home with a known previous contamination or where large numbers of animals might be rotating through the household. You can read more about this vaccination protocol [here](#).

While none of these above-mentioned strategies will guarantee that susceptible dogs will not be exposed to parvovirus, they will greatly reduce the risk of both exposure and infection.

With this in mind, it's important to balance the risk and the benefits for foster families who have previously fostered animals with parvovirus. If many foster families are available, it might be

wise to choose one without a recent history of parvovirus. Otherwise, following the steps mentioned above, along with a robust vaccination protocol, will help decrease the risk to future animals fostered in that household.

Emmy Ferrell, DVM MS
Shelter Medicine Resident
Oregon Humane Society
*On behalf of UW Shelter Medicine
Program*



Shelter Medicine
SCHOOL OF VETERINARY MEDICINE
UNIVERSITY OF WISCONSIN-MADISON

www.uwsheltermedicine.com

www.facebook.com/UWShelterMedicine