

Overview of Understanding, Prevention, and Treatment of Bacteria and Viruses in Prenatal and Neonate Canines

In conclusion, viruses and bacteria are everywhere, they are in the soil, the water, the air, and even living inside of our bodies very happily. Prevention can come from many avenues, whether it is sanitation, avoidance of high traffic area where high volume of them may be evident like dog parks, or standing pools of stagnant water, or where excessive amounts of feces have built up, or in complimenting immune health with correct diet and exercise, to provide the body with the building blocks necessary to stay healthy, and fight off the infection. In the end if we want to avoid as many problems as possible all of these measures should be followed.

Viruses are the most strait forward. They have the highest kill rate once infected, and consequently have the most research done to minimize the risk of an outbreak through the use of vaccines. Vaccines are crucial to the prevention of viruses, moms that are fully vaccinated once having pups will pass on these antibodies to the babies and in turn they are protected. To be very safe a breeding female may be given a vaccination at the time of her breeding heat, this will ensure the very highest concentration of antibodies in her milk. Continued nursing through 5 weeks of age will also coat the intestine with these antibodies even if the babies can no longer absorb the large colostrum molecule, providing this coating can help to kill the infection before it is able to get past the intentional boundary. If a kennel gets a virus in that kills puppies most likely it will be the only time that female, or others infected at the time of the outbreak, will have future litter deaths associated with that specific virus, as after she has come in contact with it she will then have an immunity to pass to her pups for that virus for the rest of her life.

Bacteria is a bit more elusive, as the body cannot fight bacteria in the same way and each infection is taken as a new infection no matter how many times a dog will get it, as there are no remembered immunities for bacteria. But in general only one type of bacteria will not kill a puppy, but yet, bacterial infection still make up the largest portion of neonate deaths in canines. This is partly due to a lack of research on the subject, and this is in part due to the fact that bacterial infections are opportunistic, meaning they wait for the perfect moment to attack, when the immune system is already down. This may come from a viral infection, even if the puppy is protected by the mothers colostrum, there is still a immune decline until the pups immunities can eradicate the virus, and during this time is when a bacteria may attack. Dirty or stale environments can lead to an overgrowth of bacteria, and what would have been an acceptable amount for the body to defend against now may be too much, like how one fire ant can be squashed but if you are contained with a trillion of them, you may just get eaten. Also bacteria works off of each other, so as soon as the bodies immune system starts to be lessened from one type of bacteria that has been introduced to the environment, and the body starts to fight that, another bacteria, perhaps common to the body, takes this 'opportunity' and overgrows as well, then the body is fighting off two infections, this lowers the immunities more, and another bacteria overgrows, and now the body is fighting off three infections and this continues until the point the battle is lost and the pup dies. As is often the case with bacterial death, one bacteria is most often not the

cause but a combination of a few different types of bacteria and or a virus. Bacterial infections are best prevented with a clean environment of an appropriate temperature, and adequate ventilation, sunlight, and immune support through proper dietary needs and a stress free environment. Once infected there are options, and antibiotics are often very effective against many bacteria. In addition to this is a natural immune system support. All together environment, antibiotics, and immune support will give a puppies its best chance of survival against a bacterial infection.

All in All providing the mother and pup with the highest levels of nutrition, in a stress free and clean environment from conception through weening will provide the best chances of recovering from either a bacteria or virus, as even with the help of vaccines or antibiotics, nothing can compare to the amazing abilities of a strong functioning immune response. This is not to say that the immune system alone can always tackle and win every battle, and vaccines and antibiotics are invaluable, but with out a healthy immune system as your foundation, all the rest can crumble and fall. So start with your base make it strong and then provide outside help as needed, and your base will be strong enough to hold it all together, and make your pups survival that much more certain.