



SOS: RECOGNIZING NEONATAL DISTRESS

Even under the best circumstances, some newborn puppies may struggle to survive. Recognizing signs of distress in puppies may circumvent mortality.

"In general, a well-managed kennel should experience less than 20 percent puppy mortality over time," says Purina veterinarian Melanie Barnes. "Greater than 20 percent mortality should be a concern. The highest risk of mortality is the first 72 hours during the neonatal stage. After that, the causes of mortality shift from congenital abnormalities to environmental factors, maternal issues, infectious disease, or trauma, to name a few."

Breeders who have persistent problems with mortality before weaning should consider having postmortem exam-

inations of non-survivors, Dr. Barnes suggests. "This helps breeders and veterinarians learn information to aid the decision-making process and prevents breeders from taking steps that may not work," she says.

The neonatal period from birth to 7 days of age is a critical stage for puppies. Intervention may be necessary if puppies fail to thrive. Signs include poor nursing, separation by the dam, lying on the side instead of the chest, lying with the mouth open, little movement compared to other puppies, and restlessness or crying despite nursing.

It is important to make sure that the temperature of the whelping box is balanced and consistent. "An excessively high temperature can lead to dehydration via evaporation,"



says Dr. Barnes. “Puppies also may become dehydrated when dams that are overly warm spend less time with them and produce less milk.”

On the other hand, hypothermia can occur when puppies are too cold. “Hypothermia can cause suppressed activity and suckling in addition to slowed gastrointestinal function,” she says. “Puppies with hypothermia also are at risk for being ignored by the dam and thus failure to thrive.”

In large litters, two or three of the smallest puppies may need assistance with suckling. “Breeders may need to encourage small puppies to nurse by placing them on the nipples to nurse every two hours including during the night,” Dr. Barnes says. “The maximum comfortable stomach capacity is about 20 milliliters per pound of body weight. You should measure a puppy’s body weight multiple times a day within the first few weeks to assess appropriate nursing and weight gain. Most normal puppies should come close to doubling their body weight in the first week or so. Lack of weight gain is a good sign that intervention may be necessary.”

A first-time mom may be overwhelmed with her puppies. “In some cases, the breeder may need to soothingly lay the dam down and help the puppies nurse to initiate a good bond,” she says. “Start with the small puppies and then the larger ones. After a few days of assistance, the dam most likely will take over and do a great job.”

If puppies continue to fail to thrive, you should consult your veterinarian. “It’s best to try to understand why puppies aren’t doing well and correct the problem, if possible,” says Dr. Barnes. “Your veterinarian may advise you to begin bottle feeding or tube feeding, though you should not try tube feeding unless you are trained by the veterinarian or a veterinary technician. When deciding whether to intervene, the veterinarian will want to know at minimum the puppies’ body weight at birth, 12 hours and 24 hours to help determine the best next steps.”

IMPACT OF PREGNANCY ON PUPPY HEALTH

Things that contribute to puppy mortality are varied. It is helpful to understand the key puppy development stages, as genetic and external issues can affect short- and long-term health. Losses that occur during gestation typically happen in the first 21-day trimester when the organs are forming.

“Essentially, the health of puppies starts at the time of breeding,” Dr. Barnes says. “For starters, you should plan to breed healthy parents that have cleared their health tests. You want to provide proper prenatal care that includes a healthy prenatal diet. With a complete and balanced diet, there is no need for supplementation.

“Pregnant bitches should not become obese during pregnancy because it can lead to poor performance during whelping and nursing. Thus, they should be active and receive regular exercise throughout pregnancy. Increasing calories is not necessary until at least the third trimester and should be based on each individual dam’s body condition score.”



Stress during pregnancy may result in puppies that are less emotionally stable.¹ On the other hand, research shows that pregnant bitches that are petted and caressed produce more docile puppies.² Exposure to parasites, poor nutrition, chemicals, disease, and medications, especially in the first trimester, can have dangerous and lasting effects on puppies.²

Importantly, breeders should be present during whelping, especially with a young bitch having her first litter or an older bitch that may show disinterest in her puppies. Attended whelping may help prevent mortality that could occur from inattention by the dam, trauma or cannibalism.

If neonates are born small in size and are not being attended to by mom, you can take quick action to rub them to dry them, to stimulate respiration and to keep them warm. Low birth weight often is associated with immature lungs, and puppies with low birth weight can become hypothermic quickly.

Likewise, one of the most common causes of puppy mortality during whelping is hypoxia, or a lack of oxygen. A green or greenish-black discharge from the dam indicates placental separation. “If this discharge appears and the puppies aren’t yet whelped, they may not be getting enough oxygen and veterinary care or monitoring may be necessary,” Dr. Barnes says.

A common error some breeders make is giving medications such as oxytocin to help induce labor when the bitch’s contractions are not strong. “If you do this without consulting your veterinarian, it could be dangerous because these medications facilitate premature placental separation, which can cause hypoxia or, even worse, uterine rupture if contractions occur when dystocia (birth complications) is present,” says Dr. Barnes.

Producing healthy puppies involves planning for a successful pregnancy and delivery. Recognizing signs of distress in neonates is an important part of getting the best outcomes in raising a healthy litter of puppies. ■

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¹ Fox MW. Understanding Your Dog. (Bantam Books: New York City) 1984.

² Hastings P, Rouse EA. Another Piece of the Puzzle: Puppy Development. (Dogfolk Enterprises: Aloha, OR) 2004.