### **CESAREAN SECTION POST-OPERATIVE INSTRUCTIONS**

A cesarean section is major surgery to remove puppies from the uterus. Most dogs recover quickly from this procedure; however, if your dog was in labor for several hours before surgery was performed, her recovery will be slower, and she will need extra attention and help with her litter.

# What should I expect during the mother's recovery period?

The mother has been given an anesthetic that is eliminated from her body rather quickly. Most dogs are raising their heads about the time they arrive at home. Complete recovery from anesthetic may take 2-6 hours, depending on the mother's physical condition at the time of surgery and her age.

During the recovery period, she must be restrained in such a way that she does not fall and hurt herself or roll over and crush the puppies. The puppies should not be left alone with her until she is completely awake and coordinated.

The mother should be interested in eating within a few hours after she is completely awake. Allow her to eat and drink all that she wants, being careful that she does not overload her stomach. This can result in vomiting. Her food intake at this time should be about 1 times her food intake before she became pregnant. By the third or fourth week of nursing, her food intake may be 2 to 2 times normal.

The mother's temperature may rise 1°-2°F above normal for the first 1-3 days after delivery, then it should return to the normal range. The normal range is 100°-102°F (37.8°-38.9°C). Your dog should not be given aspirin because it may aggravate bleeding. However, acetaminophen is appropriate at a dose of 325 mg (one regular strength tablet) per 50 pounds. If the mother's temperature goes above 104°F (40°C), she and her litter should be examined by a veterinarian for the presence of serious complications.

#### When should the puppies begin to nurse?

The puppies should be ready to nurse as soon as you arrive at home. Although the mother will not be awake enough to handle the nursing alone, it is still possible for you to assist the process by making her lie still so the puppies can nurse.

If the mother does not have any milk at first, you may supplement the puppies for the first day or two. There are several good commercial canine milk replacers available. Nursing bottles are available, made in the appropriate size for tiny mouths. The following formula may be used for a day or two if the other products are not available:

1 cup milk + 1 tablespoon corn oil + 1 pinch of salt + 3 egg yolks (no whites). Blend together until uniform. It should be fed at the rate of l oz per 1/4 lb (1/8 kg) of puppy weight PER 24 HOURS. That amount should be divided into 3-5 feedings. The average newborn, small breed puppy weighs 1/4 lb (1/8 kg) at birth.

Another alternative is canned goat's milk that is available in most grocery stores. It should be fed at the above amounts.

Although we prefer that puppies begin nursing immediately, a healthy newborn can survive nicely

for up to 12 hours without nursing. However, if the newborn is weak, dehydrated, or chilled, nourishment must be given very soon.

# How warm should we keep the room where the puppies are?

A newborn puppy is not able to regulate its body temperature very well. As long as the puppies stay near their mother, the room temperature is not too critical. However, if they are not with their mother, the room temperature should be between 85° and 90°F (29.4° and 32.2°C). If the litter is kept outside, chilling or overheating is much more likely to occur. The newborns should be kept inside the house or the garage, if possible.

#### Is a bloody vaginal discharge normal?

A bloody vaginal discharge is normal for 3-7 days following birth. It may be quite heavy for the first 1-3 days, then it should begin to diminish. If it continues for longer than one week, the mother should be checked for the presence of infection. If she was spayed at the time of the surgery, there should be no vaginal discharge.

## What does it mean if the puppies are crying frequently?

Puppies should sleep or be nursing 90% of the time. If they are crying or whining, something is likely to be wrong. Uterine infections, inadequate milk, poor-quality milk, and infected milk are the most likely causes. The entire litter can die within 24 hours if one of these occurs. If you are not comfortable with the way the litter is doing, the puppies and the mother should be examined by a veterinarian.

### When are her stitches removed?

The stitches may or may not need to be removed, depending on the type of suture material used. As a general rule, if the stitches are visible, they will have to be removed. Removal should occur at 10-14 days after surgery.

# When should the puppies be weaned?

Weaning should begin when the puppies are about 3 weeks old. The first step is to place a 50:50 mixture of water and milk replacer or cow's milk in a flat saucer. The puppies' noses should be dipped in this mixture 2-3 times per day until they begin to lap. Once lapping begins, a puppy-type canned food should be crumbled in the water:milk mixture. As they begin to eat the solid food, the water:milk mixture should be reduced until they are eating only the solid food. Once they are eating solid food (about 5-6 weeks of age), they may be placed in their new home.

## When are the puppies treated for worms?

Puppies can be treated for worms when they are three and six weeks of age. It is important that accurate weights are obtained for the puppies so that the proper dose of medication can be used.

### When should vaccinations begin?

First vaccinations typically begin at 6-8 weeks of age. If your puppies were not able to nurse during the first three days of life, they will not have received proper immunity from their mother. In this situation, vaccinations should begin about two weeks of age.