



# Causes of Neonatal Deaths

Extract from *The Dog Owner's Manual*  
by Dr Karen Hedberg BVSc

## Defects and Abnormalities

Severe defects such as cleft palates or intestinal abnormalities will result in either immediate euthanasia if noticed, or death within 2-3 days if the abnormality is internal or goes unnoticed until the failure to thrive is investigated.

## Birth Injuries

These include internal injuries from whelping, resulting in damage to the liver, lungs or brain, and cases where puppies do not sufficiently clear the fluid from their lungs. This can occur after prolonged labour or where a puppy has been stuck during whelping, more commonly seen in rear presentation.

Puppies that had to be pulled due to a very tight pelvis, or have been delayed (stuck), or born at the end of a large litter, are more likely to:

- have damage to their bodies (ruptured liver, neck damage).
- retain more fluid in the lungs (if delayed in rear presentation).
- and/or be hypoglycaemic (tired, lacking sugars)

Because the puppies are already under stress due to birth trauma, they do not progress well. In all of the above cases there is a gradual weight loss; weakening, then death. Trying to save some of these puppies can be heart breaking, as the response is often very poor. Hypoglycaemic puppies can be treated reasonably effectively if you are observant and initiate immediate restorative treatment.

Abnormalities and severe birth injuries are uncommon and usually only affect one or two puppies in a litter.



## Squashed Puppies

This occurs more commonly with larger breeds who are often very careless and sloppy when sitting and lying down in the whelping box. In some cases the owners may have to remove the puppies before the bitch gets up and put the puppies back in after the bitch lies down again. The breeds that are notable for this are St Bernards and Rottweilers, although it can occur in any breed, particularly if there is a large litter. As the puppies get a little older, they are better able to wriggle out of the way of the bitch. If careless, a bitch tends to stay careless.



Immediately after a caesarean, a bitch will not be very steady on her feet and might sit or tread on a puppy. Watch for this for the first 12-24 hours.

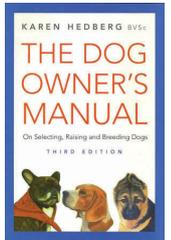
If you hear a puppy screeching, dash in and pull it out from under the bitch. If the puppy is in shock, give it a gentle rub over the chest and put several drops of brandy on the gums. Keep the puppy warm and gently stimulate it until it appears to be improving. If you are worried, take the puppy down to your vet but keep it warm and don't forget the brandy (it's a heart stimulant, and you may need some as well).

In order to prevent accidents like these, there should be bars (approximately 3-4" up and 2-3" inches in from the sides) around the inside edges of the whelping box which will give the puppies at least some protection.

*If there are dead puppies and you are not sure of the cause of death, have a post mortem done.*

A post mortem reveals that squashed puppies have internal bleeding and heavy bruising especially around the chest. Also the bodies usually look very flat (unfortunately, it's not a joke).

An extract from **The Dog Owners Manual** by Dr Karen Hedberg BVSc  
Available for purchase from Dogs NSW for \$63.60 + p/h



## Infections from the Bitch

Puppies may be born with an infection which is usually bacterial. Less commonly, in fact fairly rarely, there may be viral infections such as herpes or hepatitis.

### Viral Hepatitis

Usually there will only be neonatal deaths from viral hepatitis in cases where the bitch has very little or no maternal immunity, ie. she has not been vaccinated in the last 2-3 years. Viral hepatitis can cause sudden deaths of puppies overnight from no obvious cause. Post mortems show characteristic changes including an enlarged liver. Deaths can occur any time up to vaccination, but the sudden deaths usually occur in the first 2-3 weeks. Bitches that are up to date on their vaccinations should pass on sufficient maternal immunity to adequately cover the puppies for the first 6-8 weeks of life. Rarely seen.

### Viral Herpes

This is an infection carried by the bitch that can be passed on to the puppies at birth. The herpes virus infection causing death is usually seen 4-14 days after birth and does not necessarily affect all members of a litter. Affected puppies cry constantly, are weak, do not eat well and occasionally suffer from diarrhoea. As the condition progresses there is lung congestion and then death.

A post mortem reveals a characteristic picture of haemorrhage throughout the lungs, liver, intestines and kidneys. Because the virus replicates at a fairly low temperature, the problem is rarely seen once the puppies can properly regulate their own temperatures (over two weeks). Take sensible precautions to avoid hypothermia (chilling) in puppies at risk. Herpes virus occurs more commonly in crowded kennel set-ups where cross transmission is far more likely. At present there is no vaccine for the canine herpes virus. Fortunately it is uncommon.

## Neonatal Septicemia

Neonatal Septicemia is a generalised bacterial infection where the puppies are either sickly from birth or start to deteriorate immediately after birth (within 1-2 days). Puppies will cry, feed poorly, lose weight and develop dark red blotches on the abdomen. There can be very small haemorrhages in the gums which will have a spotty appearance. Often the naval cord/umbilical junction is wet (as opposed to dry) and the remaining naval cord is soggy (again, it should dry out very quickly - within 12 hours). Post mortem reveal widespread bacterial infection and multiple small haemorrhages. This condition is also called 'fading puppy syndrome'.

## Infected Milk from the Bitch

Puppies are born healthy and start to fail and die within 2-3 days. On rare occasions, an incompatibility of the bitch's milk to the puppies can occur and the puppies may 'bloat' because of the production of gas and toxins. Treatment is to remove the puppies from the bitch and rear by foster mother or hand feed. The puppies need antibiotics but use these only until the puppies are gaining weight steadily for 2-3 days and then stop. Remember to give yoghurt and/or acidophilus as well.

