



VET CHAT

Care of Puppies from Birth to Ten Days

The first 10 days is the most delicate time of a dog's life, and of these, the first 2-4 days are the absolutely critical for survival. Puppies are unable to control their body temperature for the first 8-10 days so the temperature of the room, and the whelping box, in particular, must remain fairly constant. *The heat must remain fairly constant down near the puppies ie. at floor level.*

Puppies are usually born with sufficient fat reserves to last 4-5 days. If puppies are placed under stress from adverse conditions such as extremes of temperature, lack of milk or infections, the fat supply will only help them cope for a very short time. Once these energy reserves have been depleted, the puppies will have great difficulty in picking up and improving from this position.

Sugar or glycogen reserves are very limited in newborn puppies, more so where there has been prolonged whelping. Failure to replace these sugars by feeding fairly quickly and frequently can have puppies in a negative energy state within 24-48 hours.

This area of care can be quite complex with many interrelating factors. The various sections within this article overlap to a reasonable degree.

Normal Healthy Puppies

Healthy puppies are quiet, contented and gain weight steadily.

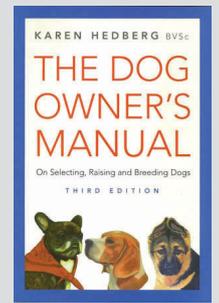
A healthy puppy will feel warm to the touch and, when picked up, will curl up in the hand, this is the normal healthy reflex. A sickly or cold puppy will remain flat and will not attempt to curl up. Healthy puppies will suckle vigorously and move around fairly actively to find a teat. Sluggish puppies have trouble finding a teat and will fall off the teat easily when pushed by litter mates. Once on a teat, a healthy puppy will suckle for 5-8 minutes (or longer) before dropping off and having a rest. The belly will feel full behind the ribs.



An extract from **The Dog Owners Manual** by Dr Karen Hedberg BVSc

Available for purchase from Dogs NSW for \$63.60 + p/h

This book is well written and an essential reference guide for professional dog breeders or family pet owners.



There should be steady weight gain by the puppies across the litter. Daily weight checks for the first 4-5 days are especially important for any smaller or 'runty' puppies. Puppies cannot afford to lose weight at this age, and the sooner any failure to gain weight (and/or loss) is noticed, the sooner it can be remedied.

A healthy puppy gains weight steadily and feels 'solid' to lift (as opposed to an unhealthy "featherweight" puppy). Weight gain is proportional to breed and birth weight, but a puppy should drink at least 10% of its body weight daily. Puppies should double their birth weight within 10-14 days.

Good Temperature control of the whelping box (and/or room)

Puppies can not control their body temperature for the first 8-10 days and need very good stability of temperature at floor level (ie. where *they* live) in order to gain weight and grow. Ideally, puppies at a good temperature should be loosely spread out in a box, happy to sleep on their sides and not needing to huddle on top of each other. They should not be making much noise apart from the usual little waffles and snuffles. *Puppies that are hot, cold or hungry will be fairly vocal on an ongoing basis until these factors are corrected.*

The bitch should be bright, eating well, have plenty of milk and be content to stay with the puppies. There should not be any green or brown discharges from the vulva, and the mammary glands should feel pliable (not hot and/or painful).

Daily Care of the Puppies

- Weigh the puppies daily for the first 4-5 days. If they are gaining weight steadily and obviously contented, then it is usually not necessary to continue weighing on a daily basis. Once a week weighing of an average sized puppy will give you a relatively good idea as to their weight gain per week.
- Make sure the blankets and any damp papers under the puppies are changed at least once a day even if the bitch is cleaning up after them. Coverings get damp and if left, can cause bacterial skin infections.
- Puppies nails should be cut once a week to make sure they do not scratch and damage the bitch's teats and possibly cause mastitis. Cut the little 'hook' of the end of the nails with a little pair of scissors.

Failure to Gain Weight in Newborn Puppies

The most common reasons for newborn puppies losing or failing to gain weight within the first 2-3 days are:-

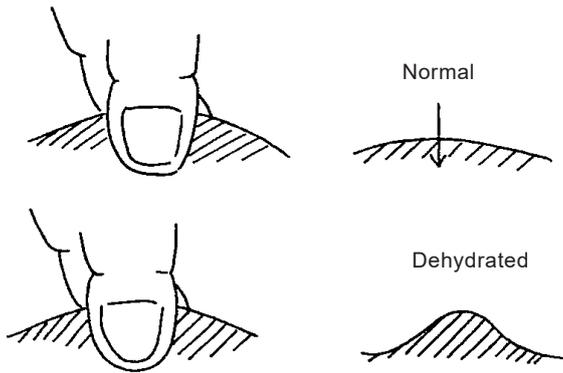
1. Dehydration
2. Hypoglycaemia
3. Poor Temperature Control in the whelping box and/or room.
4. Poor mothering/lack of milk

Often it is a combination of all 4 factors when puppies start to fail within the first few days.



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A **dehydrated puppy** is fairly easy to recognise as it is very dry in the mouth and its skin is tight over the ribs and body. In normal healthy puppies, the skin slides easily over the ribs and is elastic. If you pinch the skin up, a healthy puppy's skin immediately slides back down; in a dehydrated puppy, the skin will remain elevated or take a while to slide back down to the normal position.



Puppies, when they are born are about 80% water, and their kidney function is still immature. Because of this, newborn puppies are particularly susceptible to dehydration. Occasionally puppies will be born slightly dehydrated due to poor perfusion of the foetal membranes, often secondary to a prolonged labour. Puppies with reduced access to milk (if the bitch has insufficient milk, won't mother the puppies etc), those that are too weak to suckle and/or have diarrhoea – are all at risk of dehydration.

Hypoglycaemia (low glucose/sugar levels). Puppies need a fairly constant and frequent infusion of food (milk) to maintain sufficient glycogen (energy) in the body. Puppies are born with a small reserve of glycogen in the liver. If stressed at birth (born late in the litter and/or after prolonged labour), puppies can be marginal in glucose levels from the start. Any failure to drink or have access to sufficient milk, failure of the bitch to mother properly, poor temperature control (particularly with the cold) requires the puppy to use large stores of energy to keep warm; will quickly result in a puppy (and/or litter) going into a negative situation as far as body energy stores are concerned.

Poor Temperature Control - this is probably **the major reason** where apparently healthy puppies start to fail, usually within 24-48 hours. Cold temperatures will very rapidly (within 24-48 hours) cause serious problems in the newborn puppy. Extra energy has to be spent in keeping warm; chilled puppies have trouble swallowing so the puppies rapidly become both hypoglycaemic and dehydrated.

Treating Newborn Puppies that are failing to gain (or are losing) weight

Puppies that fail to gain weight or are losing weight, require immediate supplementation. At the same time, you need to determine the reason for the failure to gain weight. Once the weight has been lost at this early age, you can have a very hard struggle to return the weight to normal. It may take as long as 1-2 weeks. The sooner you start to correct the reasons for the failure to gain weight and supplement the puppies, the quicker the response.

*As a loose rule of thumb, if the whole litter is born very healthy and active but is doing poorly within the first 24-48 hours, it is **usually** a management problem – temperature control or problems with the bitch – poor mothering, poor milk production. Infections can take slightly longer to show up, around 3-4 days.*

If a puppy is too weak to drink properly; it can be some time before you notice that it is not doing as well as it should. A good way to check if it is drinking enough is to feel behind the ribs. If it feels empty, the puppy is not sucking or swallowing enough milk, or there may not be enough milk available.

With newborn puppies you have very little time to correct problems. If they fail to gain weight within 24-48 hours of your noticing a problem and trying to correct it, go to your vet preferably within 24 hours, 48 hours at the latest. Immediately treat and control the reasons for the puppies failing to gain weight.

1. Chilled Puppies Chilled puppies are very whingy, move very stiffly and refuse to suckle (or do so very half heartedly). Chilling will slow down the swallowing reflex as the vagus nerve, which controls the muscles of the oesophagus, is not fully developed in the newborn puppy, therefore the chance of the puppy regurgitating or choking is greatly increased.

Chilled puppies are best warmed up in wool as wool retains heat – enclose the puppies into a small area, cover them up in wool and have wrapped hot water bottles underneath, to the sides etc. Gently stimulate the puppies, move them around to encourage circulation. They should be warmed up slowly and gently. It can take up to an hour to completely warm puppies that are severely chilled. After 10-15 minutes their whinging will stop and they will start to move around more normally. Once the puppies have warmed up, feed very slowly and often with small amounts until they pick up. These puppies may need subcutaneous glucose fluids.

Over heated puppies equally will be noisy and tend to scream almost non-stop! Immediately wipe them down with wet cloths, particularly over the belly and head. Place them on a wet towel – puppies cool very quickly and will stop screaming within 1-2 minutes. Give small amounts of water (plus or minus small amounts of dilute electrolytes) often until they are settled.

2. Dehydration If severe, the puppies (or puppy) require subcutaneous fluids. Your veterinarian will often give small injections of sterile warm dilute saline with glucose under the skin. These are given with a very fine needle usually up near the shoulders. An immediate bulge (a little “back pack”) will form under the skin, which will be quickly absorbed. This can be repeated every 6-12 hours depending on the need. If the other factors are controlled (heat control, supplementation), many puppies will revive very quickly and start to suckle from the bitch within 6-12 hours. Fluid therapy rarely is required for more than 24-48 hours – it is used mainly to restabilise the body fluids and to replace sugars.

3. Hypoglycaemia Severely hypoglycaemic puppies are very listless, too weak to suckle and often will “stiffen up” and go completely rigid. These puppies are basically trying to die and, often, promptly do so. Immediate glucose and brandy on the tongue, warm the puppy and gently stimulate it to encourage circulation. As soon as possible get fluids into the puppy; ideally sterile glucose solution subcutaneously. You may still lose the puppy, but it is worth trying. Other litter mates may not be as severe and you may then have more time to reverse the hypoglycaemia.