

BREEDER BOOKLET NO. 8

CARE AND EARLY DEVELOPMENT





BREEDER BOOKLETS

This is the eighth in a series of booklets developed to support the successful breeding of racing greyhounds.

Booklet 1: Thinking About Breeding Greyhounds

Booklet 2: Developing a Breeding Program – Understanding Genetics

Booklet 3: Starting a Breeding Program

Booklet 4: Care and Husbandry in the Breeding Environment

Booklet 5: Reproductive Anatomy - Getting Pregnant

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1.0 CARE AND EARLY DEVELOPMENT

It is important to remember that female greyhounds who are feeding a litter can have an increased susceptibility to disease and illness as their bodies adapt to giving birth or caring for their pups. This is also the case for newborns and very young pups who do not yet have a fully developed immune system. This is because their immune system which helps prevent and fight disease and infections is not yet fully developed. Risks can be minimised through:

- good nutrition;
- a clean and hygienic environment; and
- appropriate health management.

1.1 FEEDING AND NUTRITION

Young and growing greyhounds have small stomachs and cannot process large amounts of food at a time. At the same time their bodies are growing and developing rapidly.

Pups need more frequent feeds and additional calcium and phosphorus to help them grow healthy bones. The ratio of calcium and phosphorus also needs to be correct. Excessive amounts or too little of both or in the wrong proportion can be dangerous to development. You should talk to your veterinarian about the correct balance of supplements for all your greyhounds.



1.2 CLEANING AND HYGIENE

Whelping areas need to be thoroughly disinfected before and after the birth. Whenever a greyhound changes location, both the pen they left and the pen they are going to must be disinfected to prevent cross infection.

Where you have mothers feeding their litters, or youngsters being housed, this cleaning needs to be more frequent as pups tend to toilet more often, and you don't want them playing or sleeping in soiled areas.

After pups are weaned, they will be being fed three or four times a day. Therefore, cleaning needs to occur at least three or four times a day to keep the area clean. Any time you see soiled or dirty housing, it should be cleaned, regardless of whether that cleaning is 'scheduled'.

1.3 BEHAVIOURAL ENRICHMENT AND SOCIALISATION

All greyhounds need access to daylight, fresh air, exercise and mental stimulation if they are to remain physically and behaviourally healthy. Enrichment can include access to different sights, sounds, smells, textures, toys and games, or even just a good yard run. Interactions with people and other animals can also be classed as enriching as long as they are positive interactions. Mental stimulation with training or foraging activities can also help provide an outlet for innate (natural) behaviours in a controlled way.

Pups that have exercise, regular handling and good behavioural enrichment tend to be more settled, display 'normal' dog behaviour, and are easier to handle because they associate humans with positive events. They learn a lot of their behaviour from watching their mother, so this in turn helps produce normal well-adjusted youngsters who are friendly and out-going. Regular handling and enrichment activities are also vital to the behavioural development of the litter, with the crucial 'socialisation period' starting at 3 weeks of age.

Early socialisation plays an important role in teaching pups to cope in a range of different situations and environments. Learning not to fear or ignore certain stimuli - that is learning to cope with multiple distractions - will be important as a pup progresses through education, training, racing and re-homing setting. Not being able to cope can present itself in behaviours such as anxiety or fear of people, items or situations, or aggression.

Any toys or play items need to be safe, non-toxic, and must be checked for damage, cleaned and disinfected regularly. Rotation of toys and activities can help keep interest up and can provide different challenges for the greyhound. Handling by, and interaction with, people needs to be fun and positive, with no yelling or punishment. Staff need to have good handling and interaction skills, and genuinely like greyhounds. They need to understand the importance of enrichment to your breeding program, and not just look at it as something to do when they have some free time.



^ Toy examples.

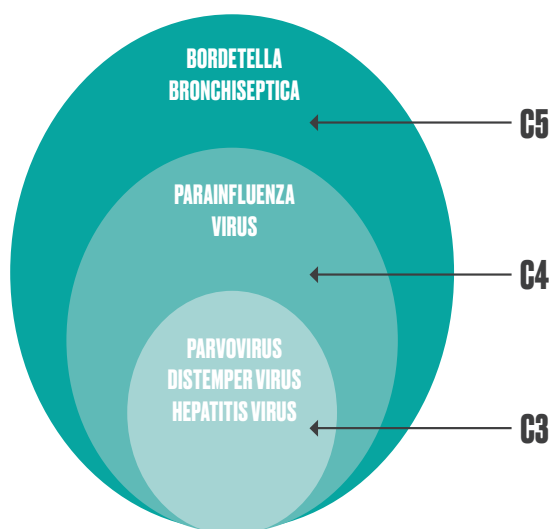
1.4 WORMING, VACCINATION AND IDENTIFICATION (MICROCHIPPING AND EAR TATTOOING)

Pups are usually wormed at 2, 4, 6 and 8 weeks of age then increasingly less frequently until they are 6 months of age. They need to be weighed and dosed accurately with a product that will kill roundworms and hookworms at the minimum. Speak to your veterinarian about an appropriate worming program, as this may include more than one brand of product.

Vaccinations, microchipping and ear tattooing are undertaken from 6 - 20 weeks of age.

Under the Racing Rules, the minimum requirements are that the litter is vaccinated:

- at 6-8 weeks of age to a minimum C3* level with the proof of vaccination submitted to RWWA before you can proceed further; and
- at 10-16 weeks to a C5** level and microchipped with the proof of vaccination clearly marked with each pup's microchip number on the litter registration paperwork as supplied by RWWA ready for the RWWA stewards to attend for ear tattooing.



*C3 = Parvovirus, Distemper and Hepatitis
 **C5 = Parvovirus, Distemper, Hepatitis and Kennel Cough (Bordetella bronchiseptica and Parainfluenza)

Your next step is to organise ear tattooing by contacting the RWWA Greyhound Stewards department to arrange a time for the Stewards to visit the property. It is important that this process is not left any later than 16 weeks of age. All greyhound pups must be ear tattooed and individually registered with RWWA before they leave their place of birth. The Stewards will check the microchip and mark off each puppy on the Ear Tattoo Registration Form E. Once ear tattooed, and the paperwork is processed by RWWA Registrations, the litter registration is finalised, and each dog is individually registered.

The process is summarised in the following schedule:

AGE	ACTIVITY
2 Weeks	Worming
4 Weeks	Worming
6-8 Weeks	C3 Vaccination and Worming
10 - 16 Weeks	C5 Vaccination, Worming and Microchipping
10 - 16 Weeks	Ear Tattooing (following Microchipping)
12 - 13 Months	C5 Vaccination



2.0 EARLY DEVELOPMENT

2.1 THE FIRST FEW DAYS



It is important that the female and pups are checked regularly in the first few days. First time mothers may not settle straight into being a mother. You may need to supervise constantly to ensure the female does not trample or lie on her pups, and you want to make sure that all the pups get a fair chance to suckle.

Probably the easiest way to make sure the pups are doing well is to weigh each pup daily. You will need to have a way of identifying each pup. By weighing them, you will be able to pick the pups that are struggling and may need extra help to keep up with the rest of the litter well before they become dehydrated or unwell. In the first 24 hours it is common (but not ideal) for some pups to lose a little weight, but after that there should be a definite gain each day, even if it is only a few grams. Pups that stay the same weight over a 24-hour period should immediately be given priority on the teats, and pups that lose weight should be very closely monitored and supplemented if needed. If in doubt, you should contact your veterinarian for advice.

As a general guide, happy well-fed pups will sleep for most of the day. When they wake, they will move about and make noise for a short time until the mother licks and cleans them (stimulating them to go to defaecate). They will then seek to feed. After about 15-20 minutes of feeding they will fall asleep again. Pups that cry are usually cold, hungry, in pain (such as when a female lies on a pup) or have been separated from their mother and littermates - so a happy litter is a quiet one. If your

pups seem to be constantly crying something is wrong - check to make sure the female has sufficient milk and that the whelping box is suitably warm.

You should also check the female each day - inspecting and feeling each of her teats to check for heat, lumps or soreness. All females producing milk are at risk of developing 'mastitis' which is a bacterial infection in the teat and/or mammary/milk gland. The affected teat becomes inflamed and hard, and often feels hotter than the other teats. Mastitis can occur suddenly and can be very serious. The milk from the infected teat can be discoloured and thick, and the female may go off her food and appear lethargic. If you are concerned that your female might be developing mastitis have her checked by a veterinarian immediately.

The female should be eating as much good quality food as she can and drinking plenty of fluids. The food and water bowls should be placed outside the whelping box, so they are easy for the female to access. Never place a water bowl inside the whelping box as pups have been known to drown in them. If she is a good mother, you may have to take her out to toilet on the lead as she might not want to leave her pups.

If you want to supplement her calcium, now is the time to do it. The liquid form (calcium syrup) is the best way to do this, as the female is able to absorb the calcium easier from the syrup than from powder. The powder can also make her food 'gritty' and she may not eat as well as she needs to as a result. Get advice from your veterinarian on the supplements available.



It can be very stressful for any female (but particularly a first-time mother) to have multiple people looking and touching her pups and can lead to her becoming increasingly unsettled. Females can also get very protective of their pups and may behave aggressively. Therefore, it is important to keep everything quiet and minimise the number of friends or family who want to visit.

There is also the risk of people bringing diseases into the whelping area. Parvovirus (which is one disease that we vaccinate against) is a very serious and deadly virus and can be carried by people (e.g. on shoes). The virus is very tough and can survive disinfection, and if introduced into a property has the potential to survive for years. Young pups are very vulnerable to Parvovirus especially in the first few weeks of life. Pups may not be fully protected until as late as 2 weeks after their last vaccination.

2.2 THE FIRST TWO WEEKS

During the first two weeks, the pups are totally reliant on their mother for everything. They cannot see or hear fully as their eyes and ears have not yet opened. They are unable to shiver, and so rely on their mother and each other for warmth. They cannot even toilet without some stimulation from their mother.

At this stage the biggest risks to survival are cold and hunger. Pups can dehydrate very quickly as they have no body reserves. They are unable to regulate their own temperature, so it is vital that they remain warm and do not 'wander off' from the litter. Therefore, a whelping box is important as it confines the pups and prevents them from getting away from their littermates. If a pup becomes cold, it becomes weak and unable to suckle. If it can't suckle, it becomes dehydrated and its blood sugar levels fall dangerously low. This becomes a vicious cycle and soon the pup becomes weaker and weaker. Early detection and action can easily reverse this downward spiral, so it is your job to be alert to changes in each pup's behaviour.

If you have a weak pup, the first thing to do is to warm it up. Placing it on a hot water bottle covered with a towel (to prevent burning) is the first step. Whilst you are making the hot warm bottle, put the pup 'under your jumper' against your skin to use your body heat to keep it warm. Once it feels warmer, the next step is to give it some fluids. Using an eye-dropper or a small syringe, place a few drops of warm water (either on its own or mixed with sugar or honey) in the pup's mouth. When you are doing this make sure the pup is held the same way as it would be when it is feeding off the teat - do not hold the pup like a human baby as the fluid will run down into the lungs and could drown the pup.

If the pup seems to perk up, place it on one of the female's back teats and make sure it has a good feed. Sometimes pups look like they are suckling, but they are not really getting much milk. You will have to supervise this pup, making sure it stays warm and has a feed every few hours until it looks stronger. If the pup does not respond to the oral fluids, it may need to go to the veterinarian for some fluids to be administered by injection.

During these first two weeks you will need to be checking the pups often and keeping the whelping box and the bedding clean. Getting into a routine where each of the pups is gently handled, weighed, and inspected each day is best. The early handling is part of the pup's normal learning process but must be done in a gentle manner. Even though the pups cannot see or hear fully at this stage, they are able to smell, and it is thought that a little mild stress (such as being picked up and handled) at this age is useful in helping them cope with things later on in life.



When the pups have reached two weeks of age it is time to worm them all, along with the female. Roundworms are a particular problem in young pups as they are passed through the milk to the pups. They are also cycled through the female as she cleans the pups and eats their faeces. At this age it is probably easiest to use a liquid wormer for the pups as getting a tablet into their mouths can be quite difficult. Each pup needs to be weighed and dosed according to its weight on the day of worming. The female can be given a regular worming tablet.

From about the 10th day of life, the pups' eyes and ears will begin to open. Suddenly they are in a whole new world and they start to explore.



2.3 THE THIRD AND FOURTH WEEKS

By this stage the pups' muscle tone and co-ordination will also be developing and they will start to make their first attempts at walking. By the fourth week the pups are starting to play with each other and the female. It is very easy to waste a lot of time just watching them at this age!

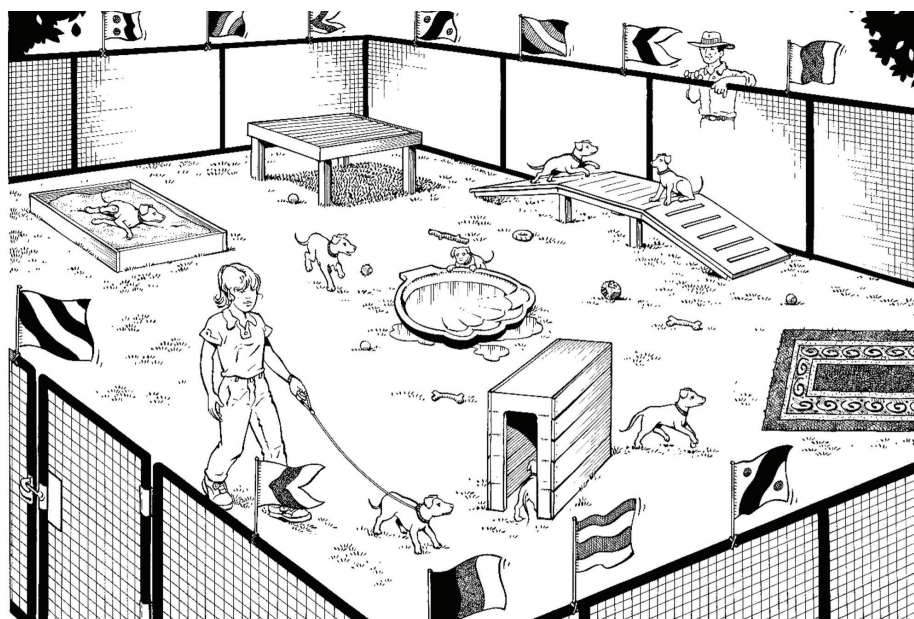
The female's milk production is at its maximum as the pup's appetite increases. She will probably need to eat more food in these two weeks than at any other time. It is also the time to start introducing solid feed for the pups. Most breeders start with a flat dish of cereal mixed with warm water (or pup formula), or puppy food that has been soaked in warm water until it is soft and mushy.

When you first introduce the food, the pups will usually walk all through it, get it all over themselves before realising it is for eating. Over a couple of days, they will gradually get the idea, and will soon come running when the feed dish is put down. By supplementing the pups with several meals per day, it is possible to take some of the pressure off the female, especially if she has lost some condition feeding the pups.

Pups at this age spend a lot of the day exploring their world. They will start to try to escape over the walls of the whelping box and will need to be enclosed in a pup run. They can also be allowed outside for short periods of time if the weather is fine. This is the age when pups learn what constitutes their bed and what is their toilet. It is important that they are provided with different surfaces so that they instinctively learn to toilet away from their bed.

Pups also do a lot of exploring with their mouths. They bite and chew each other, the female, the bedding and anything else they can get their mouths on. Providing toys of different textures at this age can stimulate this development. It is also possible to encourage chasing behaviour with toys on a rope or string that can be dragged along the ground.

> This diagram provides some ideas for establishing a puppy enrichment, play and exercise yard. You can see the yard contains multiple surfaces, sand, grass, carpet, plastic (pool). The yard also contains a shaded area, flags, toys, an old start box and a ramp to play on. These items help puppies learn about the things they will see and experience at a race track in a fun and positive environment. The height of the ramp may vary depending on how old your puppies are. Note: the design of this yard lacks a sleeping area, so puppies could only remain in here for short periods of time for exercise, training and enrichment.



2.4 THE FIFTH TO TWENTIETH WEEK

The socialisation period

As the pups continue to develop, they will become increasingly co-ordinated, and their play will start to mature as their characters develop. This period in life is called the 'socialisation period' and lasts from approximately 3-20 weeks of age. This is the time where they learn all about what is 'normal' in their world. After the socialisation period ends, they will be more suspicious of (and find it harder to adapt to) new and novel experiences, so it is important to expose them to the things they will experience later in life.

Socialisation is not just about getting them used to other dogs, but it includes exposure to people, handling, and different noises and smells. Pups can be prepared for their racing life by gradually getting them - in a controlled way around your property - used to being examined and handled, walking on a lead, and exposing them to the sounds and sights of a racetrack (without actually being there).

For example, you might gradually expose them to different people, build a ramp that looks like a veterinary examination table and put it in their pen, play the radio to give them experience of different sounds or tie flags to your fences and allow them to flap in the wind. You can encourage chasing by playing chasing games.

It is important to remember the risk of infectious diseases such as Parvovirus which young pups are vulnerable to. This is why it is important to get advice on when it is safe to move pups off your property.

It is important to remember that a poorly socialised pup is likely to find many things challenging:

- it will struggle to adapt to a kennel environment, or any different environment or situation;
- its fear response can interfere with their motivation to chase, making them difficult to break in;
- even if it breaks in, fear and distraction at the racetrack is likely to impact on its racing success;
- it will be more difficult to re-home.

Poorly socialised greyhounds can appear nervous, anxious, distracted or unable to settle. If the new stimuli are too many, the greyhound may become overwhelmed and start doing odd things, like constantly drinking or licking, bopping up and down or chewing on their bedding (these behaviours are sometimes called stereotypies and are not healthy).

It is important to note though that socialisation does not just stop at 20 weeks. It is an ongoing process that lasts throughout the life of a greyhound. Attention to appropriate socialisation is particularly important during the early developmental and educational phases of a greyhound's development.

At this age they can have a warm bath (using a pup safe shampoo) as long as you make sure they are totally dried off, as they are still susceptible to the cold. They can even be introduced to walking on a lead. All of these experiences need to be controlled and made as positive as possible for the pup. You do not want a pup to have bad experiences at this time as this could make them fearful of new things.



The pups will now be on regular meals three or four times a day. You may choose to wean the pups from the female, but sudden forced weaning is very stressful for both the female and pups. It is far better to let the female gradually wean the pups herself - she will probably start to tell them off when they use their needle-like teeth on her teats - but the gradual weaning will allow her milk to dry up naturally, rather than leaving her feeling engorged and uncomfortable, and increasing her risks of developing mastitis.

The food that you feed can gradually change from soft and sloppy food to more solid food. Any sudden changes in diet will cause the pups to have loose stools, so make sure new foods are introduced slowly over a couple of days. As the pups get older, they can also be given raw bones to chew on or other suitable items to chew on, but make sure the female is safely locked away if she is likely to become possessive of bones etc.

Pups should always be offered plenty of clean, fresh, water in a non-spillable container that they cannot fall into or drown in.

At this age you will be kept busy trying to keep the pup area clean. You will need to pick up the faeces three or four times a day as pups toilet more often than adults. Their bedding will also need changing more often as they are messier.



BREEDERS CHECKLIST

- ☐ Make sure you have had a discussion with your veterinarian
- ☐ Prepare the whelping box well in advance
- ☐ Watch your female for signs of whelping
- ☐ Supervise the birth of the pups
- ☐ Contact your veterinarian if complications occur
- ☐ Submit your Whelping Notice result to RWWA
- ☐ Ensure your female greyhound and her pups are kept well fed, warm and cared for
- ☐ Make sure weaker pups are given opportunities
- ☐ Make sure you place an emphasis on early socialisation and enrichment in your routines
- ☐ Worm, vaccinate and microchip the pups as suggested by your veterinarian and as required by racing rules
- ☐ RWWA Stewards will call to confirm an appropriate time to attend for the registration of your litter
- ☐ Register the litter with RWWA Registrations department.

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