

GRF



NEWS

Designed by Sally E Calder

August 2010

*Changing the world
one greyhound at a time!*

In this month's issue along with our regular articles and kennel update we have a look at the fascinating world of skin !! in Vets corner along with some more brainteasers and finishing with some fascinating facts about racing greyhounds. I hope you enjoy.

Kennel update

Next month we hope to reach another land mark in GRF history that of finding forever homes for 400 greys !!!!! we are currently on **398** (and may even surpass the 400 by the time this goes to print !!).

As reported last month we are in the process of building 4 new kennels. Currently 3 are now built and are already occupied!! Although some slabbing work still needs to be completed. We are also in the long process of building a walkway right round GRF. It will be about 0.3 miles long and very suitable for walking the dogs in an open area. As you will see a lot of work is still ongoing to our kennels and all at GRF certainly appreciate all the help either financially or manually that we get from our followers

Incomers: VENO, GEORGIE, LAMA, SANDY, LACEY, BARRY, ARCHIE, SWEETIE

Outgoing: ROSIE, POPPY, FARLEY, ABBIE, LIZZIE, LUCIE, GEORGIE, ARIEL (hopefully!).

Thank you

GRF would like to give a big thanks to Sue and Les Horne of the Jordan Bear charity, although both these generous people are based in the Midlands they have been supporting our cause for well over a year now, giving us a regular donation each month thus allowing us to look after all our dogs at the kennels. This year alone they have already given us **£1,350.00** !!!!! an absolute amazing amount, so thank you once again for the amazing work that you have done

At the recent Scottish Open Whippet Derby held in Randolph Park Kirkcaldy Bert (McCurdy) and a few friends went along to promote our greyhound rescue sanctuary. A folder was made up detailing all our current hounds looking for forever homes with the idea of the day to let others know that we care for a number of dogs (48) not just the one or two they see in looking for a home jackets. Armed with various goodies and some of our current "inmates" the guys not only raised awareness of GRF but also **£200.60**. Everybody at GRF would like to thank you all for your hard work over the two days

GRF would also like to thank Kate, Michele and Nic for rising at the crack of dawn and kindly doing the Kinross boot sale for the dogs. Their valuable time and effort raised **£127.50** - a terrific sum - for all the homeless hounds.

From the Dog house



SANDY - What can we say about SANDY? - He is fabulous. He is a beautiful lemon fawn. He is super friendly with people and appears to have virtually no aggression towards other dogs. When he walks beside you the lead is slack and he is probably cuddling you. What a cracking pet he will be.

Do you have it in you to give SANDY a new home Then contact Jimmy/Celia on **01592 890583**

Lucky Number - August draw

A total of 61 numbers were sold for this month's draw giving a prize fund of £122.00, which was split as **£73.20** to GRF and **£48.80** to the winner. At the end of our Dunfermline walk the draw was made and Jimmy picked out number **54**, which belongs to **Bo Barclay**, congratulations Bo.

The monthly lucky number has been an extreme success for GRF and we thank Gordon and Fiona for organising and running it each month. So if you are interested in having a "flutter" each month (£2 per number) then why not get in touch. Remember the more people that participate the higher the reward for both the lucky number winner and GRF !

If interested in participating in our monthly lucky number draw then get in touch with either Gordon/Fiona at grfluckynumber@yahoo.co.uk
And you maybe our next lucky winner !!!

2010/11 Calendars

After the success of last years 2009/10 GRF calendar we are now putting together our 2010/11 one and are thus now looking for pictures of your dogs. So if you missed out on you're hound being a pin up last year why not get snapping and who knows they may be our pin ups for 2010/11

Again we're trying to find a sponsor for each month so if you're interested in getting your business seen in 200 homes (or know someone who could be) please get in contact. Sponsors don't have to be dog/animal related- we'd be very grateful for anyone. To sponsor a month will be **£25**. Last year sponsorship covered the cost of the initial print run ensuring the calendar's financial success.

If you'd like to be involved in anyway (putting forward a photo, getting sponsors, sales...) your help will be much welcomed! Please contact Michele at marfykiwi@blueyonder.co.uk

Merchandise

Those of you who have been along to our last few walks will have noticed that you can now purchase an array of GRF merchandise. Including Baseball Caps, Tee Shirts in various colours, Rain jackets, sweatshirts, mugs, mouse mats car stickers/tax disc holders, Christmas and Birthday cards and the very popular 50p doggy treat box! Orders can also be placed if we do not have your size or the item you wanted. So why not visit our merchandise stand at our next dog walk.

Dog of the month



Woof, woof readers, my name is Bryn. I'm a 6 year old, light brindle greyhound and I've been rehomed twice by GRF - but this time it's forever (2 years in November).

Auntie Celia and Uncle Jimmy described me as the cuddliest dog on the planet on their website homing page, and I believe I still hold that record.

The things I like best are: cuddling (tummy tickling, ear rubbing, anything really); my family (you can see the other

boys on the photo - we're all boys, except Mum of course); running free in safe places; food (particularly puffed jerky!) but I'm not such a pig as my brother Kim.

The things I like least are: lots of strangers in the house; too much light when I want to sleep; going out in the rain and cold (not so bad since we got our Blizzard coats); small yapping things, deer, cats and squirrels (because Mum won't let me chase them!).

My biggest achievement (to date): is that I'm having swimming lessons at Doggie Paddles and I like it much more than I thought I would - the water is lovely and warm and Mum swims with me, then I have a lovely shower, shampoo and blow-dry, and LOADS of treats when I get home, by which time I'm very sleepy..... I can also sit on command and often do so quite spontaneously, which I'm told is unusual for a greyhound. For those of you who find it hard to sit, I recommend placing the butt and hind legs on top of the stairs and the front legs one step down - it's quite comfy really.



My favourite food: well it's hard to choose really, as I'm not a fussy eater. I'm perhaps unusual in that I'm partial to salad and fruit, but I like most other things (especially puffed jerky!). I also lick the necks of the empty wine bottles before they go off for recycling, but I've never had a proper taste.

The things I like doing best are: sneaking up on Mum's bed once she's asleep (Kim and I compete for the pillow end!); going in the car; running in the dunes with my Jack Russell chum, Charlie - I have my muzzle on so I can't catch rabbits, but it's such fun just charging around. I hate to admit it but both Charlie and the rabbits are a lot fitter than I am, so I'm soon ready for a rest, then I love to rub my face in the grass when I get my muzzle off and my lead back on. There's a lovely



muddy 'wallow' where I can lie down and cool off (if I get half a chance) but for some reason Mum prefers to take me for a paddle in the sea, then off for a drink in the stream on the way home, and some dinner and a comfy chair (or the sofa if I get there first) to round off another perfect day.

I'm quite a good boy, really, don't you think?

If you would like your dog to appear in this section of the newsletter why not send in an article with a couple of pics to alexmorrison1965@btinternet.com

Vets Corner

Dog Skin Problems

Introduction

Skin is a wonderful invention -- it guards against dehydration by preventing fluid loss; protects man's best friend from exposure to the weather by presenting a tough surface to the outside world and providing follicles for hair growth; and makes pets huggable.

Skin is the body's largest organ -- without it, hair would have no place to grow, internal body parts would become external body parts, and people would not want to hug and stroke their pets.

Skin is both tough and elastic. It is moist on the inside, relatively dry on the outside. It helps regulate your dog's body temperature through the blood vessels and reduces exposure to extreme cold by muscular action that fluffs the hair and traps heated air next to the body.

In short, skin is a wonderful invention.

Skin comes in three layers: epidermis, dermis, and panniculus. The epidermis is the body's environmental shield made up of tough keratinized cells glued together in stacks by fats. This layer is constantly replaced; the glue dries out, the outer layer of cells sloughs off and new cells rise from the basal cell layer of the epidermis, elongate, and harden to keep the horny outer layer intact.

The epidermis is a barrier against injury, disease, and damage from ultraviolet light. Obviously, the horny layer protects the internal organs from exposure and massive fluid loss. The ability to quickly replace a damaged epidermis is critical in mending trauma, particularly in cases where burns, abrasions, or cuts leave the body vulnerable to infection and dehydration.

The chief guardians against infection that penetrates the skin's horny outer layer are the amoeba-like Langerhans cells that capture foreign proteins (antigens) and send them on the road to destruction. If the Langerhans cells are overzealous in their work, the dog can develop an allergy -- a intensified immune response to a common substance.

Skin protects dogs from ultraviolet rays of the sun by providing a foundation for the hair coat and by producing melanin to colour hair and skin. Melanin is a natural sunscreen. Humans can increase the production of melanin by repeated exposure to the sun, but dogs do not tan.

Inner skin

The epidermis is joined to the dermis at the basement membrane, a layer of collagen and other products of the basal cells. Collagen is a tough, durable, fibrous protein that makes up 90 percent of the dermis and provides strength to the skin. How tough? Tanned collagen from cattle skin is otherwise known as leather.

Collagen occurs in bundles. Between the bundles are the skin's "rubber bands," the elastin cells that help provide skin flexibility. The third components of the dermis are glycosaminoglycans molecules composed of sugar and protein. These cells keep the skin layer moist.

The cells of the dermis provide a framework for blood vessels to bring oxygen and nutrients to the skin and nerves to help the dog react to and interact with his world.

Blood vessels in the dermis help control your dog's body temperature. When he runs and romps and builds up body heat, the blood flow to his/her skin increases to release the heat to the environment. In cold weather, blood flow to the skin dwindles to keep the heat where it does the most good.

Under the dermis is the subcutaneous fatty layer that has two widely disparate jobs as protective shock absorber and food storage locker for certain vitamins and energy bits called lipids.

Hair follicles rise from the dermis layer

Do dogs sweat?

Yes and no. The dog's dermal skin layer has two types of glands that produce fluids. The apocrine glands, which produce sweat in humans, have two other functions in dogs - they help seal the outer layer of the epidermis and they secrete pheromones that give dogs a distinctive body odour. The eccrine glands in the pads of the paws do produce a watery secretion similar human perspiration. This secretion leaves damp paw prints behind nervous or stressed canines and may also improve traction for a quick getaway.

Skin diseases

The skin is subject to attack from without and from within. Injury from foreign objects, licking tongue, nibbling teeth, or scratching feet, ambush from external parasites, and assault from internal infections or autoimmune deficiencies.

Inhalant and contact allergies are common causes of skin irritation that can develop into more serious problems if your dog digs and bites at her skin. Hot spots, hair loss, skin inflammation and crusty lesions can result from constant bothering of the skin.

Allergies are the result of an overactive immune system that release histamines in its effort to cleanse the body of foreign proteins from pollen, dust mites, or other materials. The histamines cause the itching.

Some dogs react well to one of the over-the-counter anti-histamines such as Benadryl, Tavist, Seldane, or Chlortrimeton. Atarax, another anti-histamine, is available by prescription.

Some dogs need stronger medication to break the itch cycle. Veterinarians may prescribe a steroid drug such as prednisone to depress the immune system so that histamines are not produced. Steroids have several potentially serious side effects, so should be used sparingly and only under veterinary supervision.

Some dogs develop lesions as a result of constant scratching. These lesions can become infected and require antibiotic treatment.

Skin parasites

Mange mites, fleas, and ticks can cause disease in dogs. Demodectic and sarcoptic mange mites live under the skin and cause irritation and hair loss. There is some suspicion that susceptibility to demodectic mange mite infestation is inherited because the disease manifests in puppies and dogs that may have compromised immune systems. Most affected puppies do recover and have no immune deficiency; those puppies that continue to be affected by the mites may have impaired immune systems.

Sarcoptic mange (aka scabies) drives dogs crazy with intense itchiness. This mite burrows under the skin to lay its eggs. Some dogs can harbour the mites without reaction, but others develop a severe allergy to the presence of these spider cousins. This mange can seriously debilitate an affected animal and even cause death.

Mange can be treated with ivermectin (except in Collies, which seem to have a severe reaction to this pesticide) or with various types of insecticide dips.

Some dogs become allergic to fleabites, making flea control an important part of the family's dog care plan. One flea can cause a reaction in a sensitive dog. Fleas are also vectors for tapeworms. However, the wide variety of flea treatments available - both organic and manufactured insecticides and genetically engineered natural controls - provides an appropriate choice for all pet owners.

Ticks don't hang around long enough or bite frequently enough to cause major skin problems, but they are vectors for Rocky Mountain spotted fever and Lyme Disease that they can transfer to dogs through their bites. Ticks are more difficult to kill than fleas and there are no organic or biological controls for these spider and mite kin. The best preventive is to examine the dog after he has been in fields or woods, remove any ticks, and place them in a vial of alcohol.

Immune deficiencies

Canine autoimmune diseases can cause skin problems ranging from loss of hair or pigment to blindness. The immune system malfunction that allows these diseases to develop may be inherited, although related dogs may have different diseases.

Autoimmune skin diseases are still rare but seem to be increasing in occurrence. Some of them seem to be breed specific. For example, Collies, German Shepherds, Shetland Sheepdogs, and Siberian Huskies are particularly susceptible to discoid lupus erythematosus, the most common autoimmune disease of the skin. Akitas, Chows, Dobermans, Newfoundlands, Bearded Collies, and Dachshunds seem to be most vulnerable to Pemphigus foliaceus, a disease in which skin breakdown causes thin blisters to appear mostly on the face, nose, lips, and ears. Akitas, Samoyeds, and Siberian Huskies are the most frequent victims of VKH, a rare autoimmune disease that causes loss of pigment in lips, nose, and eyelid margins and whitening of facial hairs. The eyes can be affected, and the dog can become blind.

Treatment for autoimmune diseases involves the use of steroids or other immune system suppressers, carefully balanced to control the disease without opening the door to infections.

Dogs can be made more comfortable with medicinal baths with shampoos recommended by the veterinarian.

Skin, skin, glorious skin

Healthy skin is a reflection of the general health of the dog. A bright, shiny coat, smooth skin, and normal body odour trumpet a dog's condition to all that watch him romp and play or recline by the fire on a winter evening. Owners who put their hands on their pets quickly notice changes in the skin and can take steps to remedy any problems.

Dry skin from winter heat? Add some Vitamin E and omega oils to the diet. Dull coat? Watch for signs of depression or illness. Afraid he's going bald? Check with the vet to discover the reason for hair loss. Think she'll chew right through her paws or rub her nose raw on the carpet? Ask the vet about inhalant allergies.

The skin, the first line of defence, does its job well, but it sometimes needs a boost, so the wise dog owners monitors his pet's skin condition.

Fun zone

First of all answers to last month's teasers !

- **A fool and his money are easily parted**
- **The missing letters spell H-A-L-L-O-W-E-E-N and the number associated with this is 31 !!**

Another 3 brainteasers for this month, answers will be in next month's newsletter.

1. A man worked for a high-security institution, and one day he went in to work only to find that he could not log in to his computer terminal. His password wouldn't work. Then he remembered that the passwords are reset every month for security purposes. So he went to his boss and they had this conversation:

Man-"Hey boss, my password is out of date."

Boss-"Yes, that's right. The password is different, but if you listen carefully you should be able to figure out the new one: It has the same amount of letters as your old password, but only four of the letters are the same."

Man: "Thanks boss."

With that, he went and correctly logged into his station.

What was the new password?

BONUS: What was his old password?

2. Mr. Collier is mad at Mr. Greene. The other day, Mr. Greene was in his yard with a dog. Mr. Collier walked up to Mr. Greene and asked, "Does your dog bite?" Mr. Greene said, "No." So then Mr. Collier reached out to pet the dog, but it bit him. Mr. Collier sued Mr. Greene. Later, Mrs. Greene came to her husband's defense. She said that

their dog has never bitten anyone, and Mrs. Greene always tells the truth. How can that be?

3. Which 3 letter word can be placed before all the words in this list, to make 5 new words?

fish
hay
skills
tail
walk

Dates for the Diary

- **Sunday 5 September.** Perth North Inch, leaving from Bell's Sports Centre car park on the North Inch at 11am. **N.B. This walk is provisional at the moment.**
- **Sunday 3 October.** St Andrews West Sands, leaving from the farthest away car park at the west sands at 11am.
- **Sunday 7 November.** Kinross. Leaving from the Kirkgate car park at 11am and walking along the side of Loch Leven to the Burleigh sands and back.

And finally

Some people are fascinated by the horsepower, cornering dynamics and top speed of a fast car, the climb speed and manoeuvrability of a fighter plane, or endless records broken at the Olympic Games.

But is there a limit to athletic performance?

So, in this article, I thought I would gather a few statistics on the greyhound as an athletic and physiological marvel for those who are equally fascinated by this lovable, elite breed of dog.

The statistics below illustrate the adaptation of the greyhound to the high-speed chase.

The figures are based on the average 30kg greyhound, at the peak of fitness and obviously injury free.

Energy Use

In the first 7.5 seconds of a 30-second race, a greyhound metabolises high-energy creatine and glycogen stores in its muscles without the need for oxygen. It uses the creatine energy base during the first 3.5 seconds acceleration phase to the first bend of a standard circle track.

In fact, a greyhound expends half of its total energy used in a race for this acceleration stage.

However, surprisingly greyhounds and even racing sprint horses performing for less than one minute expend in a race only about 6% of their total energy intake required each day to meet the exercise needs in training.

Acceleration Speed

At maximum acceleration, a greyhound reaches a full speed of 70 kmh (43.5mph) within 30 metres or six strides from the boxes, travelling at almost 20 metres per second for the first 250 metres of a race.

The only other animal that can accelerate faster over a short distance is a cheetah that can reach speeds of 109 kmh (67.7mph) over 3-4 strides from a standing start.

The greyhound can maintain an average speed of 16.45 metres per second (37mph) over a 500-metre race, decreasing to around 14.6 metres per second (32.6mph) as it crosses the finish line. A thoroughbred racehorse can achieve a maximum speed of around 49 kmh or 30.4 metres per second (30.4mph).

An elite human sprinter can reach 40kmh (25mph) in a 10 second sprint race at an all out speed of 11 metres per second.

The muscles of a greyhound generate 75-80% of their power from anaerobic metabolic pathways during a 30 second race.

In distance races in excess of 40 seconds duration, 80% of the total energy in the final half of the race or gallop is metabolised using oxygen.

The Heart

In a racing greyhound, the heart output increases from about 200mL per kg body weight per minute at rest to over 1000mL per kg at the full gallop. A greyhound circulates up to 15 litres of blood around its body, or half its own body weight in a 30 second-race.

A racing greyhound circulates its entire blood volume between 4-5 times during a 30 second gallop.

These figures equate to a greyhound pumping its entire blood volume of around 3.4 litres up to 4-5 times around its body during a 30 second gallop. A greyhound's heart weight ranges from 1.18 to 1.73% of body weight, or 270 grams to 519 grams for a 30kg greyhound, which is higher than an elite racehorse at 1.0-1.3% of its body weight.

Other breeds of dogs have a heart weight equal to 0.77% of their body weight, compared to 0.5% for humans.

An average 70kg human athlete has a heart size similar to a 30kg greyhound, but the greyhound's heart delivers blood at almost twice the rate, beating at 310-340 beats/minute at the gallop, compared to humans at 170.210 beats/minute.

Blood Volume

A fit greyhound has the highest blood volume of any athlete, relative to its body size, with blood contributing 11.4%, compared to 10.5% for a racehorse, 9.5% for a human sprint athlete and 7.2% for a normal pet dog.

A greyhound has around 35×10^{12} red blood cells in its body, producing around 5 million replacement red cells per second in its bone marrow and spleen.

A fit greyhound has about 3 litres of blood consisting of around 2 litres red cells, or about 6.6% of its body weight or a PCV of 60% of blood volume. A racehorse has a blood volume of around 55 litres, but a PCV of around 40% when fit, or 4.4% of its body weight.

Track Contact

At a gallop, a racing greyhound is only touching the track surface for 25% of its stride distance, and during the remainder of the stride, it is suspended above the ground until the next limb hits the ground.

Up the straight, a greyhound carries 2.26 times its body weight on the weight bearing front limb at each stride, increasing to 5 times (or roughly 150kg) in downward weight force on its left inside front limb when leaning over around a sharp bend on the track.

A greyhound has a stride length of around 5 metres making 4 strides per second as it accelerates from the traps, decreasing to 3.25 strides per second up the home straight, with each limb touching the ground for about 0.11 seconds.

The forelimbs have a flight distance (off the ground) of 1.23 metres, and the rear legs 2.45 metres or double the distance.

Wrist/Bone Joints

The wrist joint bones on the front limbs sustain pressure of 500psi or 20,000 Newton's per square cm when cornering at the gallop.

The wrist and lower limb structures withstand up to 150kg of downward pressure when galloping around a corner, which is created by the centrifugal force in proportion to the speed of the greyhound and the radius of the track circle.

This sideways force is imposed on the greyhound's front limb on the second stride into the corner and if the track surface is unstable or shears, the outward flinging force causes increased sideways pressure on the joint, which can result in injury to the wrist.

Respiratory & Blood Pressure Dynamics

A greyhound draws in 60-90 litres of air in 50-90 breaths in a 30-second gallop, extracting 1500mL of oxygen from the air to metabolise the energy in its muscles.

During the gallop, the blood pressure in the lung arteries increases from 7 mm mercury pressure units at rest, to 40 units at the gallop, similar to the pressure peak in a human athlete, but only one third of the maximum pressure in a racehorse's lung artery, which reaches 120 mm mercury pressure, or roughly 2.1 psi of pressure.

A greyhound produces around 100Kcals or 100,000 watts of waste heat energy during a 30 second race, sufficient to bring 600mL of tap water to the boil in around 2 minutes.

After a race, the gut function is restored over a 30 minute period to digest food, but the immune system is depressed for 30-120 minutes after a hard gallop.

Loading stress placed on the limb bones is repaired over a 7-10 day period after a race.

And we wonder why they break down !!!!!!!