



01/10/08

QUESTIONS & ANSWERS ABOUT THE MICROCHIP SUB C'M FINDINGS MEDIA RELEASE

What was the purpose of conducting a review into microchips?

The review was undertaken to consider microchipping as a form of greyhound identification versus the current method of ear branding. But also to review its potential effectiveness with changes in technology, with a view to enhancing the integrity of greyhound racing, increase efficiencies and provide access to on-line information sharing. Furthermore with the potential for various government directives to be forced upon jurisdictions, GA decided to take a proactive approach by committing to extensively researching microchips.

It is to be noted that over the past two decades, most state/territory governments in Australia and New Zealand have introduced microchipping for domestic dogs, so the potential to enforce on greyhounds was foreseeable.

The review was to assess the pros and cons of microchipping of greyhounds, having regard to the following key areas:

- medical & veterinary opinion
- information capacity, reliability, mobility, integrity, security & supply
- method & equipment for insertion, qualifications, training, insurance & liabilities
- associated scanning equipment (id, weighing, kennelling, boxes & rearing)
- data entry, processing, recording & accessing systems
- database requirements including storage, back up & IP

The review was intended to provide future direction for control bodies and participants in terms of whether microchipping will be the preferred method for greyhound identification.

The committees' findings and subsequent recommendations aim to promote a uniform position.

Why weren't participants/breeders involved in the Sub C'M?

Participants were encouraged to provide a submission to the sub committee based on advertisements placed in major greyhound publications during February/March 2008.

The number of submissions received was extremely low considering the industry has in excess of 30,000 licensed participants.

If participants would like to provide feedback on the committee's report and recommendations, they're encouraged to do so through their respective controlling body. For example, in South Australia participants should contact GRSA.

What will be the financial impact to me as an owner/trainer/breeder?

The cost impost is likely to be minimal with microchips costing between \$4 and \$10.

The controlling bodies may choose to absorb these costs as they do with ear branding but that will be the decision of each respective control body.

Large kennels may choose to also buy a scanner but this isn't essential and as is the case with some pedigree dog owners, some may choose to share scanners.



Can the microchip be removed?

As with the ability to transpose ear brands, there is a risk associated with chip removal.

Most chips that are inserted however are not easy to palpate after they have been inserted, this is because they are encased in fat and fibrous tissue which is part of the normal subcutaneous anatomy of the dog.

Dr Doyle did review approximately 30 greyhounds over three race meetings in SA and found that a percentage could be palpated but this was only due to his expert veterinary capabilities.

It must be remembered, regardless of the system in place – a small minority may try to beat the system and if they do so, they must be dealt with swiftly.

A gazetted sanction for such an offence should be a deterrent to a trainer.

I have heard that (laser treatment/ultrasound) will be an issue when treating greyhound injuries?

In Vietnam greyhound racing they have used ultrasound machines over microchips and observed no discomfort with the greyhound and the chip continued to function normally after repeated treatments.

Insertion location is an area surrounded by bony structures - scapula etc and ultrasound would not usually be carried out here. Rhomboideus ligament injuries are common in the vicinity of the implant region and Vietnam regularly laser here with no deleterious effect to chip functionality.

I understand that adverse reactions have been caused from microchips (ie, cancer, tumors, etc)?

Information and research gathered by the sub-committee strongly indicates that microchips pose no significant threat to the health of a greyhound and any reported incidences were based on anecdotal evidence, not science.

In fact, The British Small Animal Veterinary Association BSAVA instituted a microchip adverse reaction reporting system in 1996 and since its inception has indicated only 2 tumors reported from more than 4 million pets in the United Kingdom that had been implanted with microchips.

The committee indicated that the Australian Veterinarian Association and State Governments would not have endorsed the use of microchips in domestic dogs if they believed there were major associated risks like cancer, tumor.

Studies conducted by Vietnam and GRSA have also reinforced this position

A handful of cases have been tabled internationally which indicates microchips may have attributed to tumors. especially in species or strains prone to developing tumors, (like mice and rats where an implanted microchip may induce a foreign-body reaction and tumor formation) – but this was also the case for the implantation of nonreactive materials such as platinum, stainless steel, quartz, gold, and chemically pure polymers induced tumors in mice or rats. (Brand et al, 1976)

Their research indicated that the risk of foreign body-induced tumors is affected by duration, species (and strain), and size. Mice and rats are more susceptible than other species to developing foreign body-induced tumors; therefore, extrapolation of increased incidences of foreign body-induced tumors in mice to increased risk in other species, including humans, is inappropriate.

Although microchip size may vary within a narrow range, the majority of microchips used in research and companion animals in the United States are 2 mm in diameter and 12 mm in length. Therefore, the same size microchip in a mouse presents a markedly larger surface area compared to the animal's body size than it does in a larger species such as a dog.



Also, their reaction programme indicated that only 350 animals out of 4 million had any associated issues with microchips which ranged from failed, infection, lost, migration, swelling, tumor, etc.

British Small Animal Veterinary Association (<http://www.bsava.com/>)

Reaction Type	07	06	05	04	03	02	01	00	99	98	97	96
Failed	5	1	2	7	6	1	7	4	1	1	1	
Hair Loss				1								
Infection		5	1	2	1	1	1	2	1	2	1	1
Lost	3	3	7	6	6	2	3	34	7	1		
Migration	11	12	27	33	12	7	9	33	28	24	9	
Swelling	2	8		1	3	2	1	1	2	1		
Tumor			1		1							
Unknown		3						1	2			
Total Reactions	21	32	38	50	29	13	21	75	41	29	11	1

Everyone that has a greyhound will have to own a microchip reader and know how to use it?

Microchip readers won't be a prerequisite but owners may choose to purchase a reader, particularly larger kennels.

Costs for a scanner generally range between \$200-\$400 which is reasonable as a one off purchase for a responsible breeder. Readers may also be shared between kennels to achieve cost efficiencies.

The added expense to the industry is unnecessary as we already have a system that works?

The sub-committee's recommendation to proceed with microchipping is based upon the need for the industry to advance animal welfare measures and position itself for the future. It's their view that ear branding is an outmoded methodology, which often causes unnecessary stress to a dog.

The cost impost will be minimal with chips costing between \$4 and \$10.

Based on the intelligence gathered, the sub-committee found that advancements in the technology of microchips can assist participants, provide industry efficiencies and savings for clubs and controlling bodies, which in turn may be passed onto industry.

Costs for a scanner generally range between \$200-\$400 which is reasonable as a one off purchase for a responsible breeder.

How do you identify puppies without a scanner?

The committee acknowledged some concerns about identifying pups without a scanner but indicated that even today many greyhound breeders are extremely skilled at indentifying their animals without even looking at ear tattoos, which would continue under a microchip system.

A microchip identification tag which can be attached to a collar is likely to be provided when the animal is first microchipped.



Some kennels may choose to invest in a scanner or share one with other local trainers/owners to achieve cost efficiencies. It's the decision of the respective trainer/owners to decide where and when to invest their money, time and resources to achieve the best outcomes for their kennel.

Will insertion hurt a greyhound?

One of the key benefits highlighted by the sub-committee is that microchipping is significantly less painful and upsetting for a dog than ear branding.

Most greyhounds will be implanted with no noticeable discomfort. Insertion occurs at the back of the neck where sufficient fatty tissue is available. With ear branding, shock of noise from litter mates is evident, plus there is immediate discomfort for at least 24 hours.

Can a microchip cause infection?

Generally no! Unlike a grass seed which is a foreign body and can cause infection, microchips are encased in a biocompatible envelope similar to a bionic ear and do not cause a reaction.

Can the microchip migrate?

Generally no - after microchips are implanted, a network of fine tissue binds around the microchip holding it in place. On occasions, the microchip may be found away from the implant site between the shoulder blades but this is still within the scanning site.

Specific concerns regarding the athletic lifestyle of the greyhound and implications for chip instability have no basis in reality, as the real time trial of at least 1400 greyhounds in Vietnam has demonstrated over the past 8.5 years.

Microchip technology has improved with bio-dynamic polymers eliciting a mild and transient fibrosis reaction to aid the retention of the chip in the proximity to the point of insertion. These toughened polymers also resist trauma and chip implosion from a race track fall.

The structure of the implanted microchip has been designed to minimise tissue migration. The chip is encased in tissue tolerant biodynamic toughened glass with a porous polypropylene polymer which stimulates fibrocytes around the implant thereby impeding migration. The level of migration is less than 0.3% in the real life system functioning in Vietnam and these individuals are recorded and it is known to scan the thoracic region of these individuals as marked on their papers.

How long does the microchip last?

As the microchip itself does not have its own power source, in theory it can last indefinitely and will last for the lifetime of a greyhound. Failure rate and or breakage rate is exceedingly small, estimated 1 in 50,000.

Microchip versus Tattoo Debate Summary?

The integrity of the greyhound industry has always been paramount to the perception of successful wagering and in particular public confidence.

The ear brand – tattoo system often raises concerns where tattoos are faded, smudged and sometimes ineligible to read. For stewards/racing officials to clearly identify tattoos for racing integrity purposes this can be difficult and the need to remove the human error from this process seems to be a positive endorsement towards microchipping.

Across the industry anecdotal evidence suggests that the percentage of tattoos which are difficult to read is 25%. Also, across Australia the ear brand identification system is not the same.

Tattoo vs Electronic Identification as provided by Virbac – France 2001

CHARACTERISTICS OF THE ELECTRONIC IDENTIFICATION	CHARACTERISTICS OF TATTOO
➤ Uniqueness of the code.	➤ Mistakes with the codes of tattoos are frequent.
➤ No falsification: tamper-proof code ; Protects against fraud.	➤ The code can be falsified: erased, modifications of the numbers, ear cutting
➤ Lifelong identification.	➤ Can be altered: ink can erase.
➤ Fast: 2 or 3 minutes.	➤ Long: 15 or 20 minutes.
➤ Painless implantation.	➤ Anaesthesia (dermograph).
➤ Handy: the implantation and the reading are very easy.	➤ Some problems of legibility: dark skin, dark hair.

Potential welfare issues associated with Ear Branding include?

- Discomfort for an ear branded pup may last up to 7 days
- Initial pain
- Noise of ear brand gun often distresses pups
- Timidness can eventuate after ear branding

Is insertion of a microchip safe?

Microchip administration is simple and safe. Current operators performing ear branding can be trained in two hours. The microchip is inserted at the base of the neck.

Simple implant equipment is supplied free of charge with the microchips.

Who will be inserting microchips for greyhounds? – Veterinarians, etc?

It's envisaged that microchips will be inserted by trained personnel under direction by control bodies (in the exact same way as ear branding). The intention would be to not use veterinarians.

What technological developments will benefit the industry?

- kennelling efficiencies
- automatic weighing
- integrity checks prior to boxing
- cross code data uploading for control bodies
- temperature sensors to monitor health
- potential elimination of registration papers – by electronic identification thru photo's



- provide industry efficiencies for clubs
- Participants who wish to embrace the change could monitor their greyhounds' welfare better via the temperature sensors, record weight, trial times, feeding, etc via a scanner and home pc technology.

What are the suggested implementation timelines for introduction of microchips?

A staged approach to introducing microchips as follows:

- a. All greyhounds whelped from 1 January 2010 are to be microchipped. Ear branding from this date is to be discontinued.
- b. All existing racing stock is to be microchipped by 31 December 2010 for them to be eligible to continue racing.
- c. From 1 January 2011 all greyhounds who wish to be eligible to race, will only be eligible to do so, if they can be identified by a microchip.

How will the matter be considered going forward?

Each GA Member has been requested to officially discuss their position in respect of microchipping at the November 2008 GA meeting. If participants would like to provide feedback on the committee's report and recommendations, they're encouraged to do so through their respective controlling body. For example, in South Australia participants should contact GRSA.

Does the Committee recommend a total abolishment away from ear tattoos?

Yes, the committee indicated that by continuing even with ear branding one ear that it would not remarkably improve animal welfare matters.