

FACT SHEET

COBALT USE IN GREYHOUNDS

Cobalt is a naturally occurring trace element that is normally present in greyhounds at very low levels as a result of normal dietary intake. Cobalt is also present in the structure of vitamin B12. The urinary threshold for cobalt under the rules is 100ng/mL.

Trainers should use caution when:

- using products that contain cobalt close to racing as this may inadvertently lead to a rise in urinary cobalt levels.
- providing regular administration of supplements by injection, or larger 'off-label' doses
- combining the administration of registered supplements and other cobalt containing products, as this can cause elevated cobalt levels.

Trainers are advised to avoid the use of these supplements close to racing.

GAR 83A (10) Raceday Treatment

Compliance with GAR 83A Raceday Treatment will minimise the risk of inadvertently exceeding the threshold.

A greater withdrawal time is required for some substances, particularly injectable products.

How was the threshold determined?

The threshold was determined following a national population survey that measured urinary cobalt levels in 762 greyhounds sampled on a race day. The median value was 3.44 ng/mL and 74% of samples were below 10 ng/mL.

The threshold has been set at 100 ng/mL to allow for a robust margin between normal amounts of cobalt supplementation and the threshold.

Dietary supplements

There is generally no medical requirement for cobalt supplementation to be added to a healthy balanced diet.

If a vet advises supplements are required, they should be given following the labeled advice of the manufacturer and ensure an adequate withdrawal time is followed prior to racing.

Examples of injectable vitamin supplements that contain cobalt and/or vitamin B12

- V.A.M.
- Hemo-15
- Hemoplex
- Amino-lite 34X
- Kynoselen
- Tripart
- Coforta
- Folic Acid and Vitamin B-12
- Dynajec and Cophos B
- Various parasiticides, drenches and oral haematinics also contain cobalt.

A current list of APVMA registered products that contain cobalt or vitamin B12 (cyanocobalamin) is available at <https://portal.apvma.gov.au/pubcris>

What is 'withdrawal time'?

Withdrawal time is the time administration of a substance should cease to safely assume the substance has cleared the dog's system and will thus not test positive.

Always seek advice from your vet regarding appropriate withdrawal times.

Factors that can influence withdrawal time

There are many factors that can influence withdrawal times including;

- an animal's general health status, its physiology, metabolism, hydration status, fitness level, training regime, nutritional and dietary supplementation and concurrent medical treatment
- dose rate (i.e. the amount given per kg) – a higher dose will take longer to remove from the body system and could be detrimental to the dog's health. Combining similar supplements may also increase the dose rate as each may contain cobalt
- treatment duration and frequency (i.e. how long a supplement is given for and how often) as a cumulative effect could occur where supplements are given for extended periods particularly when this is against the directions of the manufacturer ('off-label')
- type of administration (i.e. orally or by injection) as injection of cobalt supplements will lead to much greater levels of cobalt and therefore requires longer withholding periods prior to racing than orally administered cobalt. Oral administration of some highly concentrated products can still lead to a breach of the cobalt threshold and require an adequate withholding period
- pharmaceutical preparation (i.e. how much cobalt it contains) as different cobalt salts contain different amounts of cobalt. The preparations may also have different properties that result in different rates of absorption.

Careful consideration of the above factors and adequate veterinary advice is important prior to administering substances containing cobalt, particularly by injection. More conservative withdrawal times may need to be implemented.

All participants are subject to the rules, and are responsible for compliance with the rules which include, amongst other things, provisions relating to prohibited substances.

This fact sheet cannot be used as a defence in the event of a breach of the rules.

The tables following provide general advice only. Always seek advice from your vet regarding appropriate withdrawal times.

Cobalt levels in oral products

A number of products are listed below and give the amount of Cobalt administered to a 30kg greyhound if manufacturer's maximum dosage recommendation is followed.

Product Name	Cobalt active ingredients	Labelled dose for dogs	Upper dose for 30kg dog (Co)	Min. suggested withdrawal time
V.A.M. PASTE CEVA ANIMAL HEALTH	COBALT SULFATE 240µg/mL CYANOCOBALAMIN 150µg/mL	0.25-1mL/10kg PO	293.3µg	Minimum 24 hours
BLOOD BOOSTER ORAL HEMATINIC FOR HORSES AND GREYHOUNDS	COBALT SULFATE 11µg/g CYANOCOBALAMIN 733µg/g	5g PO	180.3µg	Minimum 24 hours
SUPERCELL - BIG DOG	COBALT CARBONATE 90µg/g CYANOCOBALAMIN 2.5µg/g	4g PO	178.8µg	Minimum 24 hours
TROY HEMOPLEX PASTE	COBALT SULFATE 240µg/g CYANOCOBALAMIN 150µg/g	0.5mL/10kg PO	146.7µg	Minimum 24 hours
FERAMO D VIRBAC AUSTRALIA	CYANOCOBALAMIN 3.2µg/g COBALT SULFATE 90µg/g	2-4g PO	137.4µg	Minimum 24 hours
TRIPART PASTE CEVA ANIMAL HEALTH	CYANOCOBALAMIN 500µg/mL	1mL/10kg PO	65.2µg	Not on race day
RAPIDVITE AMINO VITE GB	COBALT CARBONATE 11.4µg/g CYANOCOBALAMIN 1.5µg/g	5-10g PO	57.0µg	Not on race day
HI-VITE FOLIC ACID AND VITAMIN B12 PASTE CEVA ANIMAL HEALTH	CYANOCOBALAMIN 750µg/mL	1mL PO	32.6µg	Not on race day
STOCKGAIN	COBALT 2.2µg/mL	10 mL PO	22.0µg	Not on race day
TROY IRONCYL	COBALT SULFATE 1.5µg/mL	1ml/10kg PO	1.7µg	Not on race day
LIVAMOL (SOUTER'S)	COBALT 0.08µg/g/ VITAMIN B12 0.032g/g	25-50g PO	1.6µg	Not on race day
3 IRON FOR GREYHOUNDS	COBALT SULFATE 1µg/mL	4mL PO	1.5µg	Not on race day
VITAMAX RANVET PTY LTD	CYANOCOBALAMIN 5µg/g	4g PO	0.9µg	Not on race day

INCA 3 ORAL SUPPLEMENT FOR HORSES AND GREYHOUNDS	COBALT SULFATE 0.2µg/mL	4mL PO	0.3µg	Not on race day
VITAMIN B COMPLEX POWDER VALUE PLUS	CYANOCOBALAMIN 0.5µg/g	1.75-3.5g PO	0.1µg	Not on race day
VALUE PLUS LIQUID IRON	COBALT SULPHATE 1.5µg/mL	1mL/10kg PO	1.7µg	Not on race day
CARB-IRON CARBINE CHEMICALS	COBALT CHLORIDE 7.6µg/mL	5mL PO	17.2µg	Not on race day

Cobalt levels in injectable products

A number of products are listed below and give the amount of Cobalt administered to a 30kg greyhound if manufacturer's maximum dosage recommendation is followed.

N.B. The provision of GAR 83A states that you cannot give a greyhound an injectable substance within one clear day of a race regardless of the withholding period stated in the table below. One clear day starts at 12.01am the day before a race day. E.g. If racing on a Saturday, no injectable substance is to be given after 11.59pm on the Thursday prior.

Product Name	Cobalt active ingredients	Labelled dose for dogs	Upper dose for 30kg dog (Co)	Min. suggested withdrawal time
NV HAEMO INJECTION - CEVA ANIMAL HEALTH	COBALT SULFATE 240µg/mL CYANOCOBALAMIN 150µg/mL	0.25-1.0mL/10kg IM	293.3µg	Minimum 96 hours
NV V.A.M. INJECTION - CEVA ANIMAL HEALTH	COBALT SULFATE 240µg/mL CYANOCOBALAMIN 150µg/mL	0.25-1.0mL/10kg IM	293.3µg	Minimum 96 hours
HEMO-15 VITAMIN - AMINO ACID INJECTION	COBALT GLUCONATE 700µg/mL CYANOCOBALAMIN 150µg/mL	Not registered in dogs. 1mL IM or IV common 'off-label' dose	99.0µg	Minimum 48 hours
TROY HEMOPLEX INJECTION	COBALT GLUCONATE 700µg/mL CYANOCOBALAMIN 150µg/mL	Not registered in dogs. 1mL IM or IV common 'off-label' dose	99.0µg	Minimum 48 hours

NV VITAMIN B12 INJECTION - CEVA ANIMAL HEALTH	CYANOCOBALAMIN 1000µg/mL	1-2mL IM	87.0µg	Minimum 48 hours
TRIPART INJECTION	CYANOCOBALAMIN 500µg/mL	0.5mL/10kg IM or SC	65.2µg	Minimum 48 hours
KYNOSELEN - MUSCULAR STIMULANT FOR HORSES AND DOGS	CYANOCOBALAMIN 250µg/mL	2-5mL SC or IM	54.4µg	Contains Heptaminol (minimum 5 days)
TROY DYNAJEC INJECTION - MUSCULAR STIMULANT FOR HORSES AND DOGS	CYANOCOBALAMIN 250µg/mL	2-5 mL SC or IM	54.4µg	Contains Heptaminol (minimum 5 days)
TROY VITAMIN B12 INJECTION	CYANOCOBALAMIN 1000µg/mL	0.5-1.0mL IM, SC or IV	43.5µg	Minimum 48 hours
VITAMIN B12 CYANOCOBALAMIN INJECTION - LANDMARK	CYANOCOBALAMIN 1000µg/mL	0.5-1.0mL IM or SC	43.5µg	Minimum 48 hours
RICHTAFORT PHOSPHORUS 125 + VITAMIN B12 INJECTION	CYANOCOBALAMIN 50µg/mL	5mL/10kg IV, SC or IM	32.6µg	Minimum 48 hours
AMINOPLEX INJECTION	CYANOCOBALAMIN 200µg/mL	0.25-1.0mL/10kg IM or IV	26.1µg	Minimum 48 hours
COFORTA 100 INJECTABLE PHOSPHORUS SOLUTION	CYANOCOBALAMIN 50µg/mL	0.5-5mL IM or SC (50% in healthy animals)	10.9µg	Minimum 24 hours
RANVET FOLIPHOS INJECTION	CYANOCOBALAMIN 50µg/mL	0.5-5mL IM or SC (50% in healthy animals)	10.9µg	Minimum 24 hours
NV FOLIC ACID & VITAMIN B12 INJECTION	CYANOCOBALAMIN 50µg/mL	1-2mL IM	4.3µg	Minimum 24 hours
NV COPHOS B INJECTION	CYANOCOBALAMIN 50µg/mL	1mL/15kg IM	4.3µg	Minimum 24 hours
TROY B-PHOS INJECTION	CYANOCOBALAMIN 50µg/mL	1mL/15kg IM	4.3µg	Minimum 24 hours
AMINO-LITE 34X INJECTION	CYANOCOBALAMIN 0.2µg/mL	1mL/4.5kg BW IM or SC	0.1µg	Minimum 24 hours