

## Racehorses at risk from misuse of cobalt, new study finds

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In a new study published today in *The Veterinary Journal*, scientists from the University of Surrey warn about the numerous risks posed to racehorses from the misuse of cobalt chloride, a banned performance-enhancing agent that has been used illegally by trainers in Australia and USA. The team of researchers have uncovered that when excessive levels of the alleged performance-enhancing substance are administered to a horse, it can cause serious cardiovascular issues, potential nerve problems, thickening of the blood and thyroid toxicity. The researchers also pointed to the lack of evidence for enhanced performance in horses and human athletes.

Cobalt, required by all horses in order to survive, is normally present at very low levels through various feedstuffs. However, excessive amounts of impure formulations of the substance, which can be administered easily as a powder, feed supplement or injection, can lead to severe side effects, such as long-term damage to vital organs such as the heart. Indeed in humans, cobalt salts have been used in the past to treat rare forms of anaemia. However, it has been associated with a variety of adverse effects, including gastrointestinal neurologic, cardiovascular, and thyroid problems, and as a result, its use has been discontinued.

Not a prescription medication, various cobalt salts are available from a variety of commercial sources. The salts are impure and are inexpensive, easily accessible and not subject to medicines regulation.

"We have grave concerns over a potentially lethal practice in the race



horsing industry, and are most concerned that some trainers continue to use Google as their source of information," said lead author Professor Ali Mobasheri from the University of Surrey.

"It is the duty of veterinary surgeons working in the industry to ensure that horse trainers are aware of the dangers of its 'amateur' use.

"Currently there is no evidence to suggest that cobalt chloride can enhance human or equine athletic <u>performance</u>. It is our hope that this study will increase greater awareness and prompt a broader discussion about the misuse of this substance."

## Provided by University of Surrey

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