

EQUINE MICROCHIP MYTHBUSTERS

September 1, 2023

MYTH 1: MICROCHIPS ARE EXPENSIVE.

International Standards Organization (ISO) compliant microchips are now available from the distributors for as little as \$5 to \$8 per chip and discounted for bulk purchases. The biothermal microchips can be double the price, however they have the added benefit of temperature monitoring capabilities. The veterinarian costs for microchip implantation can vary from \$30 to \$60, but microchipping can be combined with herd health or preventative care visits to decrease the farm visit costs. A microchip reader is not required to be purchased by an owner as veterinarians, competition managers, and industry organizations have available readers.

MYTH 2: MICROCHIPS CAN BE CHANGED OR ERASED.

ISO compliant microchips are read-only chips. They cannot be changed or erased as they are a passive microchip activated by the reader to only communicate the number stored on the chip. No additional information is or can be stored on the equine ISO compliant microchip.

MYTH 3: MICROCHIPS CAN BE EASILY REMOVED.

Microchips are implanted into the nuchal ligament of the horse. Removal from the horse would require general anesthesia and a deep invasive surgery. Searching for the microchip, which is the size of a grain of rice, would be extremely difficult, even if surgery was attempted. As a medically unnecessary surgery, veterinarians would choose not to perform such a surgery. If surgery was performed and attempted, there would be significant and noticeable scarring at the site.

MYTH 4: MICROCHIPS MIGRATE THROUGHOUT THE HORSE'S BODY.

Recent research studies on post-implant microchip location have shown no evidence of migration of a properly implanted ISO compliant microchip. The origin of this myth is based on the fact that the early microchips with a biocompatible surface that were placed under the skin did migrate. Subsequent changes to the location of the implantation (into the nuchal ligament, which is the international standard site for equines) and the use of microchips containing a polymer covering to assist in adhesion have led to microchips remaining in their original placement.

MYTH 5: MICROCHIPS CAUSE CANCER.

There is no evidence of microchips causing cancer in horses. The origin of this myth is based on laboratory mice implanted with microchips developing a tumor. However, these mice were involved in cancer studies and were exposed to carcinogenic substances. Additionally, the microchips implanted in the mice were not the same as those implanted in horses. Furthermore, the British Small Animal Veterinary Association reported that over a 13-year period, 3.7 million pets were microchipped in the United Kingdom and only 2 tumors were reported.

MYTH 6: MICROCHIPPING HURTS THE HORSE.

A microchip is the size of a grain of rice and small enough to fit into a hypodermic needle similar to those used in normal injections and vaccinations for horses. Most horses do not show a response, as the chip is quickly injected into the nuchal ligament. Additionally, the horse feels nothing when the chip is scanned. As comparison, tattooing and branding of horses are known to elicit a pain response and local inflammation lasting for a week. Research shows that there can be minimal inflammation for microchipping which typically dissipates in 24 hours.

MYTH 7: MICROCHIPS CAN TRACK HORSE LOCATION.

ISO compliant microchips are READ-ONLY and do not contain GPS. There is no way to track location or movement. The microchip is passive and needs a reader close by to be activated, and once activated, it only communicates the identification number.

MYTH 8: MICROCHIPS CAN BE READ ACROSS THE PASTURE.

ISO compliant microchips require readers to be in close proximity to the microchip. For most chips, the reader must be within 10cm of the microchip.

MYTH 9: MICROCHIPS CAN BE INACTIVATED WITH A MAGNET.

Magnets will not deactivate the chip. Microchips are read-only, and they do not have a power supply.

MYTH 10: MICROCHIPS ARE TRACKED IN A UNIVERSAL CENTRAL DATABASE.

Currently, there is no universal central database for equine microchips. Microchip numbers may be recorded in a breed or equine organizational databases, but there is no linking between the individual databases or information.

For more information, visit usef.org/microchip

