

Step by Step Users Guide for Implanting Microchips in the Nasal Region of Equines

What you'll need:

Halter and lead rope standard

A second handler or assistant

International Organization for Standardization (ISO) Microchip(s) *See below for further Microchip information

ISO Microchip reader – Available to borrow at CTHS Alberta office, Alberta Agriculture & Forestry Extension Offices, Livestock Identification Services Offices or available for purchase

Management software or paper work to keep records of the equines and the microchip numbers to be associated with each animal

Who should be microchipping?

The nasal implant location can be quite easy to perform once a person has been trained. A person comfortable with giving intravenous injections and with average to above average equine handling skills will be able to easily microchip equines.

In the event of a horse displaying dangerous behavior (such as rearing or striking) the individual handling the equine may provide an acceptable form of restraint in order to complete the process to ensure the safety of everyone involved. Acceptable restraint might involve twitching, snubbing or grabbing of an ear in order to complete the process; sedation should not be required. Very few equines require chemical sedation (<0.001%). The occasional equine required a shoulder or ear twitch in order to have the microchip safely and accurately implanted.

When should an equine be microchipped?

Equines as young as foals at 12 hours of age up to mature equines as old as 28 years old can successfully be microchipped.

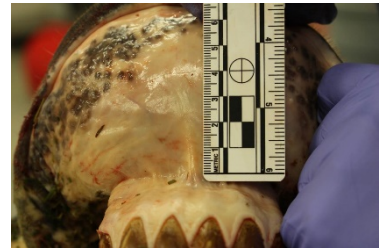
How to Implant a Microchip in the Nasal Region in an Equine:

- 1) Before implanting a microchip, properly identify the horse and check for an existing microchip with a reader. Scan the nose and both sides of the neck of the equine you are planning to chip. Equines may already have a microchip in their nose or neck. **Never assume that an equine does not have a microchip.** If the horse does have a microchip document the information, including microchip number as part of your records, noting the location (neck or nasal). If the equine does not have a microchip in either the neck or nose proceed to step two.
- 2) Check one microchip, still in the sterile packaging, with a reader to ensure it is readable prior to use. Ensure that the number displayed matches the number on the barcode sticker.
- 3) Write the name of the equine on the back of the microchip package and open the package removing the sterile syringe with the microchip in it.
- 4) Place your non-dominant hand on the equine's upper lip and fold the upper lip at a 90-degree angle over top of your fingers. Place the thumb of this hand on the inside edge of the upper lip

to ensure the lip is secure in hand. (Right handed people use their left hand and left handed people use their right hand).

- 5) Assess the temperament of each equine you are about to microchip. If the equine is objecting wait until it has stopped moving and release the lip. Repeat the process until the equine accepts the handling or determine if a physical restraint may be warranted.
- 6) Repeat steps 4 and 5 of lifting the lip and assessing the equine's temperament until you feel the equine is comfortable. When the equine is ready to implant: place the syringe in your dominant hand (the hand not holding the upper lip) with the syringe in between your index and middle fingers with your thumb on the plunger.
- 7) Carefully remove the cap from the syringe. The beveled or pointed end of the needle should be facing towards you so you can see the hole in the end of the syringe.

- 8) When ready to implant, aim the tip of the needle into the mid line of the upper lip approximately $\frac{3}{4}$ " to 1" (approximately 1.5-2cm) above the gum line or where the soft tissue of the lip meets the harder gum tissues. This region is directly above and between the upper incisors of the equine. **Image 1** →



- 9) The angle of the syringe should be slightly greater than the angle of the upper incisors. This is to ensure that you do not hit the underlying bone of the skull during implanting. The needle should easily enter the upper lip without any resistance. Be prepared for the equine to move or raise its head during this step and go with them as best possible.
- 10) Sink the needle into the upper lip to its entire length and depress the plunger until you hear or feel a "click" indicating the microchip has been fully expelled from the syringe.
- 11) Following the "click", lock the plunger and hold it in the fully depressed position while removing the needle. Swipe the implant area of the upper lip with your finger or thumb to ensure the microchip stays at the top of the injection tract.
- 12) After use, very carefully replace the needle cap on the syringe and dispose of the syringe in the same manner as other sharp medical devices and medical waste. Dispose of sharps safely.
- 13) After the microchip has been implanted, scan the equine's nasal area to confirm implantation and readability.
- 14) Record the name and microchip # sticker for each equine implanted wherever required.
- 15) 24 hours post implantation, scan the equine again in the nasal area to ensure the implant is still there. Visually check implantation site for any severe swelling or tissue abnormalities.

NOTE: Occasionally a microchip can migrate back down the path of the needle. Swiping the area with your thumb immediately after injection will reduce this risk and scanning the equine after 24 hours will also ensure that the microchip has remained in the equine. Very rarely (<0.001%) is a nasal microchip lost after 24 hours.

Troubleshooting

Although complications with microchipping equines in the nasal area are very rare, there are some noteworthy side effects and to be aware of. Failure to follow the precautions and instructions in this document may result in improper microchip placement, migration or loss of the microchip and/or possible injury to the horse and/or handler.

Microchip Migration: Implanting microchips in the nasal region prevents migration complications. If after 24 hours a microchip no longer reads, it may have traveled back down the needle insertion track. Although rare, if a microchip is confirmed as lost after implantation, a new microchip would need to be implanted again in the nasal area and the new number recorded for that animal.

Risks: Microchips are intended for **single use only**; do not reuse the syringe as doing so could cause infection. The nasal area in equines is not intended to be microchipped with a glass encased microchip. Recommended microchips are Datamars Slim RFID Microchips with bio-compatible polymer. Minor bleeding at the insertion site may occur if a small blood vessel is ruptured. Bleeding will be minimal and short lived, if excessive bleeding persists, contact a Veterinarian.

Discomforts: As with any equine injection, there is potential for minor insertion site swelling within 24 hours of application. There is a slim chance of infection or abscess at insertion sight. If there are any signs of adverse reactions, please consult with your Veterinarian as soon as possible.

***Microchip Information:** The CTHS will be using Datamars Slim Microchip T-SL. The microchip is coded with a unique 15-character number. It is smaller than traditional microchips and is delivered with a user friendly 14 gauge syringe style applicator. This is the same microchip being used by the Jockey Club. Manufacturer's information: <http://www.datamars.com/products/companion-animal-id/slim-microchip/>