Foal imprinting in its latest guise arrived in Australia in 1988 when American vet, Dr Robert M Miller, toured this country with Pat Parelli, lecturing and answering questions on this wonderful method of gently handling and training newborn foals. Miller took this ancient art, ritualised it, named it, explained why it is so effective and offered it to the American horse world in the 1970s.

**What is imprinting?**

A foal, immediately after being born, can see, hear, feel and smell almost as well as a mature horse. According to Miller, immediately after birth the foal’s brain is highly receptive to certain kinds of information which can be absorbed with great speed and with great permanence, lasting a lifetime.

During the foal’s first hour of life, the owner handles and rubs him from head to hoof. Done correctly, this desensitises him to frightening sounds, sights and sensations, sensitises him to conditioned responses, and forms a lasting bond between the foal and the handler. Some handlers merely desensitise the foal to touch while others go further and desensitise him to the sound and feel of paper, plastic bags, squeaky toys and clippers. Rhythmically and gently inserting a finger into the foal’s mouth, nostrils, ears and anus prepares it for later stress-free veterinary and dental examinations, worming, nasogastric tubing, rectal palpation and clipping.

To desensitise the foal, Miller recommends that, once it is on its feet, you condition it to five separate responses - to pick up each foot, to lead, to move the headquarters laterally when cued, to back up on command and to move forward in response to pressure from a tailrope.

**Bonding and desensitisation**

Desensitisation involves handling the foal within his first hour of life - as soon as the umbilical cord has broken and before he attempts to get to his feet. Keeping the foal on its side to create an attitude of submission, towel it dry. This allows the foal to get to know you and establishes you as a dominant player in its life, one to be respected. Then starting with the head, rub your hands over the entire face, head and ears until the foal relaxes. Rhythmically and gently stick your finger into his mouth, ears and nostrils and wiggle it around. Do not stop if the foal resists or tries to escape because this teaches him to escape in the future. You may have to rub each individual part of the foal up to a hundred times but be patient and persistent, rubbing beyond the point where he relaxes and becomes oblivious to it. Do not stop if he objects but gently restrain him and persevere until he completely accepts the intrusion and relaxes.

Once he has completely relaxed and is oblivious to you handling his head, move down the body in small increments and work on each until acceptance is established. Handle and rub the legs, starting at the body and working your way down to the hoof. Repeatedly flex and straighten the legs until the foal ignores the
process. Gently tap the bottom of the foot with the palm of the hand to simulate the feel of the farrier’s hammer.

Ensure you handle the genitals, groin and under the tail. Spend time on the udder and perineum (the area around the anus and vulva) of fillies, and the scrotum and penis of colts. Using a surgical glove lubricated with KY jelly or Vaseline, gently insert a lubricated finger into the anus and then wiggle it about until the foal relaxes and accepts the procedure, easing the way to a future of stress-free rectal palpation and temperature taking.

When you first start to imprint, the foal will be very reactive and tense but as you progress he relaxes and each new section desensitises a little quicker, until you get to the point where he remains relaxed no matter where you rub. Go back occasionally and recheck various areas to be sure they are truly desensitised. Once the foal totally accepts these procedures, roll him over and repeat the procedure on his other side. Do not rush the desensitising process but continue to work with each area until the foal is completely relaxed and you are sure you are finished. Desensitising can easily take an hour or more, after which allow the foal to scramble to his feet and nurse - without helping him in any way at all.

SENSITISATION

Because a horse responds with submissiveness to anyone who controls his body position, a foal will quickly accept as a leader anyone who can manipulate his body position or who controls his ability to run away. The time to sensitise is as soon as the foal is strong on his feet and well coordinated; anything from 12-24 hours old. Do not attempt this if he is wobbly or weak.

In a nutshell, sensitising can include gently halter breaking and stimulating the foal to respond to pressure, moving forwards, backwards and sideways, leading, tying up and picking up its feet on command. Because very young foals tire easily and must lie down often to sleep, each sensitising session should last no longer than 15 minutes. Even if your session is not complete, stop after 15 minutes and come back later when the foal is rested.

To sensitise the foal and teach him to back up, press your fingertips against the base of the neck just above the chest. As soon as he leans or steps back, release the pressure. If done correctly, the foal will learn to back up in response to the pressure within a minute or two. To teach the foal to move forward, use your hand to create pressure on the hindquarters, below the tail. Eventually he will move forward as soon as he feels light pressure from behind. Later you can change from using your hand to using a tail rope with a halter.

To sensitise where the rider’s heel makes contact with the side of the belly, stand alongside the foal and place one arm under his neck to restrain him. Then reach over his back with your other arm (simulating a rider’s leg when astride) and press your fingertips into his flank. Maintain pressure until the foal moves toward you. The instant he does, remove the pressure and move your body away from him so you do not obstruct his movement. Pause, and then repeat the procedure. After a few repetitions the foal will be conditioned to move toward you any time he feels pressure on his flank. Ask for only one step at this point then repeat the procedure from the other side.
If imprinting is done within the first hour of the foal’s life, the foal will develop a strong bond with the person doing the imprinting, following and respecting that person just as it will with its dam. However, this presupposes that you will actually be there when your mare foals. Some people mistakenly think that they are imprinting when they attempt the procedure on foals that are a day or more old. Actual imprinting can only occur right after birth, any later and you are simply training the foal. People who have tried both methods can clearly see the difference in the foal’s attitude and responses.

Imprinting must be done correctly to obtain optimum results. It is impossible to override the ‘flooding’ stimuli (flooding the foal’s brain with new experiences and sensations) during the desensitising process, but if you traumatise the foal or stop too soon and consequently do too few flooding stimuli, you will cause far more damage than good. For example, stopping a stimulus while the foal is trying to escape teaches the foal to escape, thus sensitising it instead of desensitising it. If you stop when the foal pulls away while you are inserting your finger in his mouth, he has learnt to pull his head away when you are trying to place the bit in his mouth or warn him. If you flex a leg and tap on it, imitating shoeing or trimming, do not let the foot loose if the foal struggles because that teaches him to take the foot away from the farrier later in life. Only after he submits and totally relaxes, then you can release the foot.

Imprinting your foal does not mean allowing him to become pushy or cheeky. You can touch him, but he may not touch you without permission. You can touch his mouth, but he must never put his mouth on you. You can pick up his feet, but he must never put his feet on you. He must never invade your personal space and be close to him unless you invite him to do so, while you can invade his personal space and be close to him.

Before considering imprint training your mare must, of course, be gentle, tractable and halter-broken and you should know if she is over-protective of her newborn foals, if she is she may suddenly attack you. Another common mistake is not to position the mare, foal and handlers safely. All should be able to see one another and the mare should be able to sniff and talk to her foal if she wants. The foal handler should be on the ground behind the foal and the mare handler should control the mare with a halter and lead rope and keep her a safe distance from the foal and the foal handler.

COMMON MISTAKES

- Imprinting can prepare the foal to live in our world and tolerate a lot of the things we do to horses, such as inserting a nasogastric tube, placing a rectal thermometer, clipping the coat, working with the head or trimming the feet. If you stop there, imprinting is not a bad thing, says Dr Scoggins. However, some people try to see how many things they can get their foal desensitised to until eventually it becomes desensitised to life. Some foals get so submissive that they end up with no protective mechanisms, but we (and they) need those protective mechanisms in the training process.

CRITICISM OF IMPRINT TRAINING

According to a series of ongoing research projects at the University of Rennes in north-western France, human interaction with foals at this critical early developmental age appears to be a stressor, whereas positive human interaction with the mare creates a strong model for the observing foal. These findings have raised questions about the desensitisation technique of imprinting, according to Séverine Henry, PhD, Professor of Animal Behaviour at the University.

Since 2004, a team of behavioural biologists has undertaken comparative studies that focus on the short- and long-term consequences on social behaviour of various human intervention practices in the immediate postnatal period. ‘Our most recent study has focused entirely on imprinting techniques, and what we found was that it really wasn’t very effective,’ Henry said. The results, parts of which were published in Developmental Psychobiology and the Journal of Comparative Psychology, reveal that foals handled by humans during the first hours following birth remained closer to their dams and appeared to be more cautious about approaching humans at several weeks and months of age than foals in a control group that had not been handled.

Human-handled foals were also less social with other foals and less likely to explore their surroundings or separate from their mothers, even at six months of age, Henry said. By contrast, the studies showed that foals that had not been handled directly, but had witnessed gentle human handling of their dams, were more likely to trust humans.

‘What we have discovered is that everything that the foals experience very, very young is something that is then fixed into their memory over the long term,’ Henry said. ‘It’s evident that we’re dealing with a period which is very important for their (behavioural) development.’ Henry explained that because horses show affection differently from humans and other domestic animals, using less physical interaction, the early human contact is unnatural and could be perceived as negative. ‘It seems that the best way to establish confidence with a new foal is through good contact with its mother,’ said Henry. ‘Clearly, to create a positive horse-human relationship, it’s not a good idea to intervene in the natural progression of postnatal events, nor in the early mare/foal relationship.’

The French team plans to continue following the sixteen foals to further investigate the effects of early human handling over the long term.

CAN IMPRINTING GO TOO FAR?

Imprinting is beneficial if done right, but dangerous if done wrong, warns Dr R D Scoggins, Equine Extension Veterinarian at the University of Illinois College of Veterinary Medicine in the USA.

‘Imprinting can prepare the foal to live in our world and tolerate a lot of the things we do to horses, such as inserting a nasogastric tube, placing a rectal thermometer, clipping the coat, working with the head or trimming the feet. If you stop there, imprinting is not a bad thing,’ says Dr Scoggins. However, some people try to see how many things they can get their foal desensitised to until eventually it becomes desensitised to life. Some foals get so submissive that they end up with no protective mechanisms, but we (and they) need those protective mechanisms in the training process.
Miller advocated and it employs most of Miller’s techniques with a few modifications. After Parelli’s seven-day programme, the foals are turned out and receive no handling thereafter, except for hoof trimming, vaccinations and worming. When these foals are rounded up as yearlings, they are well-mannered, responsive and gentle.

Monty Roberts, the man who popularised horse whispering, relates the tale of an aggressive American Thoroughbred mare, L’Adorable, who was born in 1980, was a difficult yearling and, even though she was trained by competent horsemen, she remained difficult through the breaking process, ultimately repeatedly injuring herself through fits of rage when in pre-race training. Eventually her injuries were so severe she was retired to the broodmare band where her first five foals met violent deaths early in their lives because of behavioural problems similar to their dam. Her next six foals were imprinted. Amazingly, their dispositions were dramatically different from the first five and all six lived normal and productive lives. Roberts says, ‘I do not believe a more demonstrative experiment could have been conducted than this one. I have investigated the facts and are sure the circumstances were not made up, and the mare was not in the hands at any time of anyone trying to promote science.’

It’s horses for courses. Imprint your foals properly and you will have a willing, tractable companion for life. Do it wrong or overdo it and you will end up with a lifetime of problems.

Reference: Imprint Training of the Newborn Foal Robert M Miller DV