

# **BIT-INDUCED FEAR: A welfare problem & safety hazard for horse and rider**

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## **Part III: BITS AND 'BAD' BEHAVIOUR**

### **Behavioral Profiling**

Table I lists the hundred or more behavioural signs that can be caused by the bit. Many of these signs have in the past been listed by riders as vices but to classify them in this way is grossly unfair to the horse. Most of them are simply normal physiological responses to pain and fear. They are survival strategies for a prey animal, hard-wired into their genes by natural selection. A 'successful' horse has evolved to be easily frightened. Genes that fail to signal avoidance tactics do not survive. Fear behaviour may be inconvenient and troublesome to the rider but, as far as the horse is concerned, it is not bad behaviour. Repressive measures like more severe bits, martingales and crank nosebands are not the answer. The correct (and most rewarding) response from the rider is to stop hurting the horse.

By completing the first column of the questionnaire in Table I<sup>2</sup> at a time when a bit is in use, a rider can be alerted to the presence of bit-induced problems. Riders may not have previously suspected that many of the problems they were experiencing with their horse were even caused by the bit. The majority of the problems listed in the questionnaire are most commonly caused by the bit. About a quarter of the problems are pathognomic. Nevertheless, there are many that are non-specific and which occur, though less frequently, due to pain from some other source (e.g. an incorrectly fitted saddle or the presence of shoes).

By completing the second column of the questionnaire after the bit has been removed, it is possible to generate a tally of those problems that are bit-induced (generally a surprisingly long list) and to highlight those remaining problems for which some alternative explanation needs to be sought. A good time to complete the second column would be after a month's usage. If it is completed within one or two weeks of adopting the head-hug method, following years of bit use, some of the persisting problems may still be bit-induced but simply need a little more time to resolve. This applies especially, to trigeminal neuralgia, in which both the actual pain but also the fear and anticipation of pain (a definition of stress) may take time to fade.

The questionnaire serves the rider and veterinarian as an aid to diagnosis and as a guide to treatment. It provides a means of differentiating, for example, between the unlikely

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possibility of a behavioral problem being inherent to the character of the horse and the greater probability that it is caused, albeit unintentionally, by the bit-induced pain. Many horsemen have been surprised to discover that some trait in their horse that they presumed to be inborn and, therefore, a permanent character flaw was in fact amenable to correction by simply removing the bit. Horsemen who are under the impression that their horse does not hate the bit may change their mind after reading Table I.

A collection of these questionnaires serves as a database for future research.

The questionnaire was originally compiled from data based on a survey of written replies from the owners of 605 horses who had switched their horse from a bitted bridle to the CBB (Cook 2003). The problems that had been solved in this population by removing the bit were listed in their descending order of frequency. That material has since been updated and rearranged for the purpose of forming the behaviour profiling questionnaire.

In compiling the original table, I learned two things worth emphasizing. Before studying the feedback reports from users of the cross-under bitless bridle, I had not appreciated the **extent** to which a bit causes pain and **frightens** a horse. The most commonly reported adverse behavioral effects were classifiable under the six F's of fright, flight, fight, freeze, facial neuralgia and physiological confusion. Although the bit method is responsible for causing over a 100 problems for the horse, most of these are subsets of the first five major categories, all five of which reflect various aspects of fear. Fear of pain is the most striking effect of the bit method of communication. Fear is the factor common to all of the first five F's. Quite apart from the compelling *animal welfare* argument, it can be said of bits in general from a *human welfare* point of view that it is not a good idea to use a method of communication that causes pain and frightens an animal as large and powerful as a horse. A horseman's adage worth remembering is that *pain makes a horse pull*. Pain also makes a horse bolt, buck and rear.

## Results

Naturally, it is unlikely that any one horse will exhibit every potential bit-induced problem. The equestrian discipline for which the horse is used will have a bearing on the likelihood of certain problems occurring. For example, dressage horses that are required to perform with a high degree of poll flexion (often and mistakenly brought about by rein pressure rather than by true collection) are most likely to develop the headshaking syndrome. Thoroughbred racehorses, all of which are required to work at their maximum athletic performance, are most likely to develop asphyxia-induced pulmonary oedema (AIPE). Standardbred racehorses that are required to race with two bits in their mouth (a snaffle bit and an overcheck bit) are most likely to develop dorsal displacement of the soft palate. All three of these problems can and do occur in other disciplines but their prevalence is less.

Using the questionnaire in 2004, a sample of 12 bitted horses were recognized as exhibiting from 11 to 36 problems, with an average of 23 problems per horse. But after using the head-hug method for periods ranging from four days to six months (average 42 days), the degree to which these problems were solved ranged from 38% to 94% (average 67%). The top scoring horse was an 11-year-old Arab gelding trained for dressage. This horse had 33 problems, of which 31 (94%) were solved after six weeks.

When more than two thirds of a horse's problems can be eliminated in just over a month, simply by removing one or more steel rods from its oral cavity, it serves to emphasize the merit of the cross-under bitless bridle and the head-hug method of communication.

Since the above figures were compiled, one user has completed questionnaires on each of four dressage horses that she has owned for many years. As it happened, each horse when bitted had the same number of problems (37). By removing the bit, all problems were cured with the exception of one problem in one horse that continued to foam at the mouth.

### **If a bit is so bad, why has the method survived?**

First, much of the evidence indicting the bit has only been published in the last eight years. Secondly, the reason why the bit method has survived so long is that, until recently, there has been no universally suitable alternative. The situation is rather similar to what happens in the field of surgery. A traditional surgical technique will continue to be used until such time as a better technique is introduced. Thirdly, as with all advances, one can expect a time lag between the first report of an advance and its general adoption.

As mankind has, for five thousand years, been accustomed to the idea that it is both acceptable and necessary to use a bit to control a horse, it will take time and courage for such a mind set to change. Nevertheless, horsemen nowadays are nothing like as conservative in their thinking as tradition might suggest. Many are very open to new ideas and thousands of riders have already switched from a bitted bridle to the new cross-under bitless bridle (Cook and Strasser 2003). An indication of the degree to which this open-mindedness is rewarded can be gained by reading users' comments online at [www.bitlessbridle.com](http://www.bitlessbridle.com) and at [www.bitlessbridle.co.uk](http://www.bitlessbridle.co.uk). The natural horsemanship movement is gathering increasing momentum and this is good for the welfare of both horse and rider.

### **Why have the traditional bitless methods not displaced the bit method?**

The hackamores, bosals, and sidepulls have as long a history as the bit but there are at least three strikes against them.

- Like the bit, all three types are pain-based methods. For this reason, they are inefficient as a method of communication as the rider's signals can be misinterpreted
- All of them have practical limitations. The hackamores and bosals, for example, provide signaling for stopping but are weak on steering. Conversely, the sidepulls are adequate for steering but are weak on stopping.
- Aside from any limitations currently imposed by competition regulations, these traditional forms of bitless communication – unlike the cross-under bitless bridle - are not universally suitable for every horse, discipline or rider.

In contrast to these traditional forms of bitless communication and to all the bitted methods, the cross-under bitless bridle has the merit of being painless, of providing effective communication for all purposes, and being compatible with the physiological requirements of the exercising horse. Furthermore, it is incapable of being abused and, with the exception of competition regulations that presently disallow its use, it is applicable to all disciplines. For a subjective comparison of each of the methods, see Table I in Part I of this trilogy.

## Conclusions

The bit has long been thought of as a method of **control** and this is a mistake. The bit has never worked like a steering wheel or a brake on a car. A bit is not and never has been a mechanical device for controlling a horse at exercise. At best it is a signaling device for **communication**. It should not and cannot be used to 'control' in the sense of 'command.' It should and can only be used to signal a request. The more polite (i.e. painless) the request, the more likely it is that the horse will comply. Unfortunately, because all bits are foreign bodies inserted in a highly sensitive body cavity and used to apply highly focused pressure on bone, they are - by their very nature - painful. The only way that a bit can never cause pain is for it never to be used.

So if it is not to be used, why do we put it there? Such a non-use standard may be achievable by master horsemen riding English with a double bridle and feather-light fingers, or riding Western with a slack rein and a curb bit. But even with such examples, the bit still remains an intrusive foreign body that has no business to be in the mouth of an exercising horse. Even though it may not appear to cause obvious pain in the hands of a master it still interferes in other ways with the physiology of exercise (Cook 1999b). A grazing horse is fastidious about what it puts in its mouth. Left to its own devices it would certainly reject any item that faintly resembled a bit.

I conclude that, as a method of communication, the bit is fundamentally flawed. Pain in the mouth causes horses to run (i.e. bolt) or protest by head tossing, bucking, rearing and many other evasive actions (Table I). Any method of communication that can only be used humanely by an experienced horseman after many years of practice, and that can only be used humanely on an intermittent basis by the average horseman, and that cannot be used at all humanely by a novice, is not a method that can be recommended.

A method that cannot be used without inflicting pain, other than by a small minority of riders is, by definition, not suitable for general adoption.

Apart from the question of pain, there are other problems. Before learning the intricacies of 'correctly' fitting and using a bit, an owner has to face the minefield of 'finding' the right bit in the first instance. To discover the right 'key' to a horse's mouth riders are expected to have an intimate knowledge of equine anatomy. Books on biting warn that a rider should be able to judge such niceties as the width of their horse's mouth, the depth of the tongue groove, the fleshiness of the tongue, the concavity of the hard palate, the conformation of the jaw and the status of the dentition. Even supposing a rider had mastered the technique of actually opening a horse's mouth to make such appraisals, these are matters that remain a mystery to most equestrians.

Furthermore, if a rider ignores the thorny question as to whether it is even possible to *select and fit* a bit 'correctly' (it isn't), she has only to read any book on biting to be alerted to the degree of knowledge and skill that is required for the 'correct' *employment and maintenance* of such a device. The 'tongue-over-the-bit' problem is only one of many problems that a rider is expected to solve. The average rider that fails to solve this problem can take comfort in the fact that there are plenty of advanced riders in the same boat who are competing at Grand Prix level. As few horsemen possess the qualifications for what used to be called the 'making of a mouth,' the bit method of communication cannot be recommended for the universal application that it has for so long enjoyed. The average rider can no more be expected to exercise the necessary discretion and skill for using one or more bits than a child can be expected to play safely with an open razor.

The correct selection and use of a hackamore or a bosal also has many pitfalls. Once again, experience and skill is required, together with a period of training of both horse and rider.

In happy contrast, a rider does not have to be either an anatomist or a master horseman to select and use the head-hug method. Subtle variations in the conformation of the mouth and jaw are not of any consequence and even the normal eruption of permanent dentition is no longer a matter of concern. It is still wise to attend to sharp enamel edges on the molar teeth but wolf teeth, for example, no longer have to be removed and there is no need to create 'bit seats.' Unlike when using a bit or a hackamore, a rider cannot hurt a horse with a head-hug. The method can be used for all horses, in all disciplines, and by all riders, even novices. Horses that are not in pain are far less nervous. Being calm they are also in the right frame of mind to learn, so schooling proceeds faster and with fewer setbacks. A rider does not have to overcome, avoid or treat so many bit-induced problems or survive so many pain-triggered hazards. It is too easy for a rider to make mistakes when using a bit.

The head-hug method protects riders from making mistakes because, unlike the bit method, it is virtually impossible to make mistakes. As long as the bridle is fitted correctly (an easy task) there is really no way in which the cross-under bitless bridle can be used incorrectly and certainly no way in which the method can be abused. As a

result, riders discover that they are better horsemen than they supposed and that they own a better horse than they thought. Training advances more rapidly and a harmonious partnership is fostered between rider and horse.

In choosing a method of communication, a rider has the option of hurting or hugging: being an enemy or a friend (predator or partner). The bit signals painfully with metal on bone and jeopardizes the safety and welfare of horse and rider. The cross-under bitless bridle signals painlessly with strap on head and enhances safety and welfare. To the horse it feels like a halter but to the rider it feels like a bridle. My recommendation can be summed up by reversing a familiar phrase ... spare the rod and save the horse.

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### **Acknowledgments**

The author is grateful to the riders who provided the feedback on which the questionnaire is based. He is indebted also to the curators of the Smithsonian Museum, Washington, DC, the Field Museum, Chicago, and the Museum of Comparative Zoology, Harvard University for granting him access to their collection of equidae skulls. Figure 2 was drawn with the help of photographs provided by Dr. M. Kumar, Tufts University and tomograms provided by Dr. Ross Tucker, Washington State University.