

**Saddling – Back to Basics**  
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**SADDLING – BACK TO BASICS**

**A Veterinary Viewpoint**

***Introduction***

There has been a great deal of discussion on saddling in the equine press recently and rightly so. This is a subject that was for too long neglected. The fitting of a saddle may arguably be described as the single most important factor affecting the riding gait of a horse and his welfare. It is invidious to try to rank just one facet of a horse's life above others in importance, since what really matters is how it all comes together. Saddling, however, correct or otherwise, has so much influence upon the horse's way of going and upon his welfare, that it merits very special attention.

Recent seminars, demonstrations and lectures have brought the subject of saddling sharply into focus over the last few years and deserve merit for the way in which they have brought saddling to the top of the agenda. No one will be more grateful for this in the long term, should the basic message be taken on board, than the horse. The feature article in *Your Horse*, February 1994, shows more eloquently than can any number of lectures, how an expert saddler, with a rare and deep understanding of saddle and horse structure and function and with a refreshing sympathy for horse welfare, can set about producing not only a huge improvement in horse performance but, more importantly, a significant welfare benefit.

Both the previous year's live demonstrations and the work of the saddler featured have brought forward reaction from the saddling establishment. This is right and proper in a democratic country and the extent and intensity of the debate serves to reinforce my contention that it is indeed a very important topic. Horse welfare demands no less. Our responsibilities to our mounts require us to look at every issue. Let us now look at why this is so.

### *Saddling considerations*

Let us briefly study some of the ways in which a saddle can affect a horse when it is put on the horse's back and 'girthed-up'. Firstly, the saddle and girth apply restriction to a horse's breathing via reduction of the mobility of the ribs. This is common to all saddles but, clearly, if there is discomfort then breathing efficiency will be affected. Secondly, the saddle's purpose is to make riding a horse (who was not designed to be ridden) both comfortable and safe for the rider (very important considerations but beyond the scope of a veterinary article) and to distribute both the rider's weight and those considerable g-forces, generated during riding, over as wide an area of the horse's back as is practicable (vital for horse health). The wider is the area for distribution, the less the force on any one spot. The maximum pressure figure usually quoted for muscle function and health is 1½ lbs per sq. in. When you consider that a 10-stone rider carries perhaps 1 stone in weight of clothes and 1 stone in the saddle then we must add 2 stones to each rider's weight, to arrive at a realistic figure. Add to this the g-forces generated, which can momentarily be much higher, and it becomes obvious that the small area of contact of a saddle with the horse's back assumes great importance. It must add up to *at least* 112 square inches of effective load-bearing surface in the case of our ten-stone rider. If there are any unevennesses in the flocking or if the padded area does not fit the horse's back perfectly, then the contact area is reduced significantly, increasing local forces to an amount far exceeding that critical 1½ lbs/sq in. The result physiologically is reduction or obstruction of local blood supply to the skin and muscles, with subsequent loss of muscle mass and perhaps even visible skin damage, in more extreme cases. Who would want that for a horse, let alone wanting some of the knock-on and consequential effects we see, as the horse inevitably reacts to and tries to compensate for the discomfort or frank pain caused by an ill-fitting saddle?

The saddling article in the February issue both illustrates and describes the horse moving more freely and exhibiting joy of movement, when fitted with a more suitable saddle. That was with only an off-the-shelf, trial saddle, intelligently and sensitively chosen for that horse. Imagine the improvement when not only is the saddle specifically made for the horse but also when all previous back discomfort has healed. One assumes that this mare will respond even more in the longer term, as do so many, rewarding all the efforts and expense many times over. This is the reverse process to that which I now describe, which occurs in response to applying (and riding on) an ill-fitting saddle.

### *Reactions to pain from saddling*

**Movement:** Because all of a horse's muscles are used in concert during movement, restriction of any single muscle will result in an altered action. Because the muscles upon which an ill-fitting saddle impinges (the large dorsal muscles and

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the several, criss-crossing muscles beside the wither and behind the shoulder blade) are of major importance to the horse, restriction in their movement results in fundamental changes in a horse's way of going. In mild cases this can be manifested as difficulty in bringing the horse onto the bit; in more extreme cases it can be construed, by a rider not aware of the possibilities, as a basic bad behavioural trait with lack of forward going, hollowing the back, tail swishing, high head carriage, short stabbing stride at the front, failure to bring hind legs forward, hanging on the bit, even bucking, bolting or rearing. The horse may find going downhill very difficult and may be unable to bend satisfactorily to either side. The exact combination of gait deficiencies and avoidance behaviour will be decided by the nature and location of the injury caused by the saddle and by the sensitivity of the horse.

***Knock-on effects:*** The result of bad action is not just an uncomfortable ride, not just a poor performance in dressage or other flat work, not just an unsightly action. Let us not underestimate the possibilities for very real bodily damage. Not only is there the direct trauma to the back and back muscles but the resultant avoidance response the horse makes will put uneven and unnatural loading on many other parts, which may be remote from the saddle area. The gait and action deficiencies briefly described above will inevitably result in abnormal stresses and strains on limbs and spine. Spavins, arthritis of the fetlock, tendon injuries, navicular disease etc. (the list is endless) can all owe their root cause or their perpetuation and be directly traceable to this course of events. Furthermore, from a Traditional Chinese Medicine (TCM) point of view, when you consider that the saddle and girth together cross many acupuncture meridians (channels), upon whose health and integrity normal bodily function depends, then all sorts of seemingly-unrelated medical problems may also be exacerbated or even predisposed by ill-fitting tack. This dissertation is too brief to do justice to such a large subject but suffice it to say that we should put very little restriction on our ideas of what may or may not be caused by, worsened by or predisposed by a saddle which is not comfortable or not suitable for your horse.

It is on the basis of this understanding that we realise that holistic healing of your horse, whatever its problems may be, absolutely depends upon correct saddling and a study of this, therefore, forms a large part of my daily work with horses. That is not to say that there are not many other factors to consider in addition, each also being of great importance. Teeth, farriery, chiropractic health of the spine, stable management and diet, to mention but a few, all play a very large part in health and therefore also in disease, if one or more is incorrect for your horse. This short article on saddling cannot, however, carry information on all these other important topics. It stands to reason that all must be put into context when treating disease in a holistic and meaningful way, and the result of this type of attention can be the resolution of a great many problems in horses often considered incurable. Behavioural traits, arthritis, spavin, [navicular disease](#),

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ringbone, sidebone, [back problems](#), breathing problems such as [COPD](#) and a great many other, commonly considered intractable, problems will very often respond favourably to holistic medical methods, provided all aspects of the horse's life style, management, tack, [shoeing](#), teeth and [feeding](#) are adequately considered and put into context. Saddling takes its place in this scheme of things and a very important place it is too.

### *Summary*

Accepting that correct saddling is important for the comfort, rideability, performance, health and longevity of your horse, how serious is the problem? How commonplace are saddling defects? How important is saddling to your horse? Is there a problem at all? Let us set fashion, dogma, opinion, vested interest and financial resources aside for the moment, in attempting to answer these questions in general and with particular reference to your horse. The answer is simple to all the above questions. The proof of the pudding is in the eating. The difference between a turn-of-the-century\* military saddle and a modern dressage saddle or jumping saddle is like that between chalk and cheese. Forgetting the rider comfort and safety factors for the sake of this article (both because it is beyond my expertise and sphere of work and because it is well within the capabilities of a good saddler to harmonise those points with horse comfort factors) do these differences matter? Is it only a matter of opinion? The difference between the advice of those who advocate a narrow tree to grip the wither firmly or a wide tree to give it room or those who advocate moderation as in the article, and their reasons for that advice, can all be put to the test. The horse will unequivocally tell us the answer, if he or she is correctly observed. It is not just a matter of opinion. Fashion cannot be used as an excuse. Rider factors cannot be considered above and before those of the horse or gait and performance (and of course welfare) will undoubtedly and *demonstrably* suffer. Put the rider first and he or she soon may have no horse to ride! Theories, opinions and fashions can all be made to provide seemingly-logical solutions to the saddling of your horse but only one judge should be heeded in the final instance; **that judge is your horse.**

I am often questioned as to how widespread saddling problems are and how significant they are in any given disease situation. I can answer, sadly, that they are very widespread and, as outlined previously in this article, they can be of variable significance from negligible to deadly. Witness the huge array of gadgets and gimmicks, which are on sale nowadays, designed to lessen the effects of bad saddling. The market would not exist for many of these products if good saddling were the norm. Horses may even be put down for behavioural or physical defects which, if properly analysed, may boil down to saddling factors. Apart from the widespread fundamental errors in the fit of a saddle, there are many structural defects inside saddles, only to be revealed by dismantling. These are too many to

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mention in this short article but this is a manufacturing problem yet to be properly addressed by the saddling community at large.

That is not to say that *all* problems stem from saddling, far from it. Such an assertion would be illogical extremism and would not be worthy of attention. Many other factors affect a horse's work and well-being, as previously described briefly in this article, but the extent of saddling defects as a *part* of a horse's problems should not be underestimated. Ignore it at your (or, more importantly, your horse's) peril. I am confident that there will be a remarkable positive effect from the saddling initiative applied to the horse in the February article. I expect that effect to be surprising to many. I am very used to seeing the very positive effects, which the sort of technology described there has produced on many patients I treat. I wish that the technology, know-how and understanding described in the article could be more widely available.

### *Conclusion*

In conclusion it is worth suggesting that, when buying a horse, you should set aside from your available money enough funds to provide for a properly-fitted saddle. This should be considered as an integral part of your initial outlay, when deciding how much horse you can afford. However, it is with very serious difficulty that the caring owner sets out to select, purchase and adjust a saddle to a horse, with conflicting advice from all sides, all talking with great confidence and conviction. It is a bewildering experience. A saddle-fitting qualification is sadly not necessarily sufficient safeguard for the caring owner/rider. A saddler should be able clearly to explain what he or she is doing and why. This will demonstrate a degree of humility and security in knowledge. What is offered should be as simple as possible and properly explicable. There are then simple tests which you can run, to see if all is well. The simplest of these is to lunge your horse, both with and without saddle. There should be no change in action, posture, gait, demeanour or behaviour, when the saddle is fitted. Your horse should not object to the saddle or to the girth (but old habits, acquired through pain, may take a while to subside in response to careful saddling).

Avoid gimmicks and short cuts and never buy by mail-order. Your horse deserves better than that. Also, the price of the saddle is not necessarily a guide to quality and comfort. It can be said, however, that corners cut at this stage may prove very costly in the long run and may even lose you your horse.

Through all this, only one judge and arbiter should be heeded, above all the advice, rules, assertions, dogma, fashions, theories, vested interests, charismatic rhetoric and your own prejudices, that will tend to enter the equation. That judge is your horse.

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### **Postscript & Personal View**

It is a sad fact that many horses are being ridden under saddles, which cause discomfort and pain. Apart from the local pain and suffering, the discomfort and pain from imperfect saddling lead to altered action. Altered action leads to incorrect stresses being put on back, joints and bones. This leads to pathology, over a period. Hence my concern and involvement.

If a horse naps, he is said to be ungentle. Most such cases I have visited appear to be uncomfortably saddled and are intolerant of it. What a waste and travesty to blame the horse! He may be a bit intolerant, but he is trying to prevent physical pain and damage. If, however, the hints he offers are not heeded, he will be sold or put down, as unsuitable material.

If, on the other hand, a horse is compliant and uncomfortably saddled, he eventually suffers pathology, through consistent and long-term incorrect action. He then ceases to have a value. This leads to rider dissatisfaction and could result, ultimately, in euthanasia.

It is no coincidence, in my opinion, that most cases of [navicular](#), spavin, [bad backs](#) and uneven working ability also happen to have uncomfortable or unsuitable saddles. These are the tolerant horses, who suffer pain without complaint, until eventually pathology results. We can trace and demonstrate the way in which the stresses and, therefore, the pathology courses through the body, to particular sites of disease.

The bottom line is, tolerant or intolerant, so many horses end up in trouble or dead, as a result of unsuitable saddling.

As an integral part of our work, we ensure that a rider can see the basic points about comfortable saddling. He or she will be able to see where the currently used saddle may be causing problems, if it is, and, between us, we should be able to devise a way out of the problems, whether by manipulation and medication and/or by correction of faulty saddles.

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We believe that, whatever the theoretical merits or demerits of a certain saddle or saddling method and whatever theory a rider, saddler or vet may propose, the horse should be the final arbiter. We are able to demonstrate how a horse will communicate his opinion, which should be trusted above all others.

Common saddling faults that we find are: tree size, tree shape, build quality, stirrup bar alignment, girth strap alignment, panelling design and alignment, flocking and girth design.

If your horse does not go as you had hoped and if he behaves in a difficult manner, he may well have a saddling problem. Give him a chance.

Written by Christopher Day – May 2000

See also:

<http://www.alternativevet.org/saddling.htm>

<http://www.chiropractic-vet.co.uk>

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