The jumping debate

Sue Dyson

Do horses like jumping and is there any evidence that jumping horses have shorter careers compared with other horses?

Is there any evidence to support the premise that jumping is bad for horses? Whenever discussing potentially contentious issues it is important to look at the available facts and the gaps in our knowledge.

It is a common clinical scenario that people say 'my horse jumps well – but he doesn't like flat work – so there cannot be anything wrong'. This concept is wrong – the horse probably doesn't like flatwork because it finds it difficult, perhaps related to discomfort. However, it demonstrates that many horses seemingly enjoy jumping, although anthropomorphising human emotions to horses is potentially dangerous. Some horses will jump spontaneously from field to field – would they do this if they didn't like jumping?

From a personal perspective as a rider who has been fortunate enough to compete in both showjumping and eventing at upper national level, I can attest to the fact that horses with the requisite athletic ability are willing to jump and require no coercion. They progressively develop musculoskeletal strength and coordination and also appear to benefit mentally from a mixture of work which includes jumping. My former horses that competed at World Championships and Olympic Games in eventing had career longevity, as did the showjumper who was twice Junior European Champion.

However, it is important that performance is monitored carefully; any decline in performance usually suggests that there is an underlying problem that needs further investigation. Most amateur riders rely on the advice given to them by professionals, be it a trainer or coach, veterinarian, osteopath, chiropractor or other health advisor. Is their advice always appropriate? How often do we hear that inconsistency of performance is attributed to a horse being a mare, yet there are many top-level mares that perform very consistently. Alternatively, a rider may be told to be stronger, try harder, train more frequently. A veterinarian may advise joint injections. How does an amateur rider ignore such advice? How do they tread through this potential minefield?

If we look at the performance of horses at the World Championships and the Olympic Games we see a bigger spectrum of rider and horse ability than at most other international level competitions and we see some combinations being over faced and some unpleasant riding. This is in the public eye and cannot be condoned. There is less public awareness of what goes on at lower-level events which involves both amateur and professional riders. If you look you will find that there are similar pictures of poor horsemanship.



It is easy to say 'don't jump', but is there any evidence that general-purpose riding horses have a better quality of life and are less injury prone? The answer from studies performed in Denmark, France, Sweden, Switzerland and the United Kingdom is no. The proportion of lame horses is higher in general purpose riding horses, probably because of failure of recognition of the presence of problems. Recent personal observations of horses produced using so-called 'natural horsemanship' techniques revealed a distressingly high proportion of uncomfortable horses.

Is there any scientific evidence to indicate that jumping is bad for horses? If you look objectively at the demographics of horses competing in upper-level eventing and showjumping a large proportion of horses have long careers, extending into their late teens. This could be a feature of survival of the fittest; those horses with an inherent predisposition to injury do not make it to upper levels. We have demonstrated that there is a higher frequency of occurrence of lameness in low-level usually amateur-ridden event horses compared with horses competing at 5* level.

Could the welfare of jumping horses be improved?

Are there any observations that indicate that the life of jumping horses could be improved? There is a common practice to loose school very young immature horses over fences both to test their ability and to showcase their ability to potential purchasers. Is it really necessary to jump such large fences? The higher the fences the greater the impact on the forelimbs when landing. Wouldn't it be better to jump with equal frequency off the left and right reins? My personal observation is that horses are loose jumped more off the left rein than the right. I am also sure through personal observation that some horses sustain injuries at this early stage of their career which were potentially unavoidable.



Competition riders in Europe have been asked to keep diaries in order to document the day-to-day management of showjumpers, including duration and type of ridden exercise, other types of formal exercise (for example, on a horse walker) and turnout. It is clear that in general terms the total duration of exercise is less than ideal. The warm-up patterns of show jumpers before starting jumping have also been studied. Often the duration of warm-up is less than ideal. It has also been observed that many jumping riders jump more off the left rein than the right rein, which has implications for the forces experienced by the left and right forelimbs during landing. It would be better if horses were jumped similarly off the left and right reins.

In a study from a Belgium clinic it was observed that lateral tears of the deep digital flexor tendon in the fetlock region occurred more commonly in showjumping horses than horses from other disciplines (although this may in part reflect the proportion of showjumpers seen at that clinic) and were seen much more frequently in the right forelimb compared to the left forelimb. It is not known why this difference occurred. However, when jumping off the left rein the right forelimb is the trailing (non-lead) limb on landing and greater ground reaction forces are generated through the more vertically placed trailing limb compared with the leading forelimb, which may be a factor in injury occurrence.

We have observed that showjumping riders are more likely than event riders or dressage riders to use one favourite saddle on several horses. One size does not fit all and it is improbable that one saddle will fit all the horses and allow optimal performance. I have also observed a tendency among showjumping riders to place saddles too far forwards which can have detrimental effects on forelimb movement. However, studies in both Switzerland and the United Kingdom have shown that there is a high proportion of ill-fitting saddles in horses used for all types of work.

We know from observations made at the Athens Olympics that the nature of the footing may have an influence on injury risk in upper-level showjumpers. At all levels greater attention needs to be paid to footing and arena maintenance and working horses on a variety of surfaces to prepare them for what they may encounter in competition or in day-to-day leisure riding.

There is no doubt that appropriate trimming and shoeing are crucial for any horse used for riding purposes. The recent successes of the Swedish showjumping team in which the majority of horses were barefoot mean that we do sometimes need to think outside the box about the way in which we do things. It is also important to recognise that this does not mean that all jumping horses should be barefoot; this will depend on the surfaces on which the horses will be regularly worked both at home and in competition.

Is the welfare of jumping horses worse than other horses?

Arguments about the welfare of horses need to be well-balanced. Elite showjumping horses unquestionably face long travel distances which we know are stressful and can predispose to respiratory diseases. Their access to uncontrolled turnout and natural social interactions are extremely limited when on the competition circuit. However, they have grooms, who are by and large dedicated to their horses, spend hours with them and are often extremely good observers. For them the welfare of the horses in their care is of paramount importance.

This has to be balanced against an increasing awareness of the deleterious effects of obesity in leisure horses in particular. A proportion of general-purpose leisure and low-level competition horses are ridden by riders lacking musculoskeletal strength and coordination, riding in saddles that place them sitting on the back one-third of the saddle, often sitting crookedly.

We need to address many issues in the equestrian industry without necessarily singling out specific disciplines. There are many areas where there is room for improvement, and we need to work together to try to achieve change.

Further reading

<u>Arensburg</u>, L. <u>Wilderjans</u>, H., Simon, O. (2011) Nonseptic tenosynovitis of the digital flexor tendon sheath caused by longitudinal tears in the digital flexor tendons: A retrospective study of 135 tenoscopic procedures. *Equine Vet. J.* 43, 660-668.

Dittmann, M., Latif, S., Hefti, R. et al. (2020) Husbandry, use, and orthopedic health of horses owned by competitive and leisure riders in Switzerland. J. Equine Vet. Sci. 91,103107

Dittmann, M., Arpagaus, S., Hungerbühler, V, et al. (2021) "Feel the force" – Prevalence of subjectively assessed saddle fit problems in Swiss riding horses and their association with saddle pressure measurements and back pain, *J. Equine Vet. Sci.* doi: 10.1016/j.jevs.2021.103388.

Dyson, S., Carson, S., Fisher, M. Saddle fitting, recognising an ill-fitting saddle and the consequences of an ill-fitting saddle to horse and rider. *Equine Vet. Educ.* 2015, 27: 533 - 543

Dyson, S., Greve, L. Subjective gait assessment of 57 sports horses in normal work: a comparison of the response to flexion tests, movement in hand, on the lunge and ridden. *J Equine Vet. Sci.* 2016, 38: 1-7

- Dyson, S., Tranquille, C., Walker, V., Guire, R., Fisher, M., Murray, R. A subjective descriptive study of the warm-up and turn to a fence, approach, take-off, suspension, landing and move-off in 10 showjumpers. *Equine Vet. Educ.* 2018, 30: 41-52
- Dyson, S., Ellis, A., Guire, R., Douglas, J., Bondi, A., Harris, P. (2019) The influence of rider:horse bodyweight ratio and rider-horse-saddle-fit on equine gait and behaviour: a pilot study. *Equine Vet. Educ.* doi:10.1111/eve.13085 2020 32(10) 527-534
- Dyson, S., Bondi, A., Routh, J., Pollard, D. (2022) Gait abnormalities and ridden horse behaviour in a convenience sample of the United Kingdom ridden sports horse and leisure horse population. *Equine Vet. Educ.* 34, 84-95. doi: 10.1111/eve.13395
- Dyson, S., Bondi, A., Routh, J., Pollard, D. (2022) An investigation into the relationship between equine behaviour when tacked-up and mounted and epaxial muscle hypertonicity or pain, girth region hypersensitivity, saddle fit, rider position and balance and lameness. *Equine Vet. Educ.* 34e, 258-267 doi:10.1111/eve.13440
- Dyson, S., Ellis, A. (2022) Application of a Ridden Horse Pain Ethogram to horses competing at 5-star three-day-events: comparison with performance. *Equine Vet. Educ.* 34(6),306-315 doi: 10.1111/eve.13415
- Dyson, S., Pollard, D. (2022) Application of the Ridden Horse Pain Ethogram to horses competing in British Eventing 90, 100 and Novice one-day events and comparison with performance. *Animals* 12, 590. https://doi.org/10.3390/ani12050590
- Egenvall, A., Tranquille, C., Lonnell, A. et al. (2013) Days-lost to training and competition in relation to workload in 263 elite show-jumping horses in four European countries. *Preventive Veterinary Medicine* 112, 387–400
- Greve, L., Dyson, S. (2015) Saddle fit and management: an investigation of the association with equine thoracolumbar asymmetries, horse and rider health. *Equine Vet. J.* 47: 415 421
- Greve, L., Dyson, S. (2014) The interrelationship of lameness, saddle slip and back shape in the general sports horse population. *Equine Vet J.* 46: 687-694
- Lönnell, A.C., Bröjer, J., Nostell, K., et al. (2013) Variation in training regimens in professional show jumping yards. *Equine Vet. J.* doi:10.1111/evj.12126
- Murray, R., Dyson, S., Tranquille, C., Adams, V. (2006) Association of type of sport and performance level with anatomical site of orthopaedic injury diagnosis. *Equine Vet. J.* 36 (Suppl. 36), 411–416.
- Tranquille, C., Walker, V., Hodgins, D. et al. Quantification of warm-up patterns in elite showjumping horses over three consecutive days: a descriptive study. *J. Comp. Exercise Phys.* doi:10.3920/CEP170009