

I am providing research data* supporting my own advice concerning efficient use of reins and gaining a co-operative response from horses as opposed to “opposition reflex responses and reactions”.

According to a study by European equitation scientists, horses prefer to avoid excess rein tension rather than just getting used to it. And beyond a certain force threshold, rein tension can cause conflict behaviour. To make the most of training and to keep the horse's mouth sensitive, riders need to know when to apply less rein tension when the horse displays conflict behaviour. Clear and understandable cues are also very important simultaneously.

"This motivation to avoid tension is, of course, what we make use of during training," said Janne Winther Christensen, PhD, a research scientist at the faculty of agricultural sciences at Aarhus University in Tjele, Denmark, and primary author of the study. "Increased focus on timing of pressure release is likely to benefit both learning and welfare," she said.

Christensen and her French and Ukrainian colleagues tested 15 two-year-old Warmblood fillies that had never before had bits in their mouths. By using young horses, the researchers were able to see how the horse reacts naturally to rein pressure before having the effects of multiple riders and trainers. By fitting them with snaffle bits with reins attached to a surcingle (a strap that fastens around a horse's girth area) at various set lengths, they were able to test the horses' willingness to stretch their heads beyond a gate to reach a bucket of oats and molasses. While they expected the fillies to refuse the rein tension the first day of the study and then gradually increase their tolerance over the following days, they were surprised to find that the opposite was true.

"The horses applied a surprisingly high level of tension on the first day and apparently learned how to avoid the tension, rather than habituate to it," Christensen said, adding that they accepted tension as high as 10 N (Newtons) the first day but only up to around 6 N on the subsequent days. "This clearly demonstrates that horses do find tension aversive." Conflict behaviour--mouth gaping, head lifting and tilting, and backing away--was associated with high rein tension in the study, said Christensen, who first presented her findings at the sixth International Equitation Science Conference in Uppsala last August prior to the study's upcoming publication in Equine Veterinary Journal. Earlier studies, performed by different research teams, on rein tension in more experienced horses have shown pressure tolerance up to 40 N, and the horses did not always display

conflict behaviour, she said. However, these more experienced horses might have become less sensitive to the tension because of extended training without proper pressure release, and they might have been disciplined for displaying conflict behaviour. Ideally, riders should be able to benefit in their training from horses' natural sensitivity to the bit. "One would expect that the higher the level of training, the less tension is necessary to get the horse to respond," she said. "So the aids should become lighter and lighter in advanced dressage." The basic data provided in this study will be used in future studies of how different training techniques affect horse welfare and stress levels, according to Christensen. "Training horses by the use of negative reinforcement, such as bit pressure and release, requires responsibility from the rider in noting when the training becomes aversive and stressful for the horse," she said. "Thus, both amateurs and professional riders must be willing to adjust their training techniques if their horse is showing conflict behaviour."

Closing reminders: Bit materials and bit positioning are large factors in a horse's comfort and mental state. When a bit is held in the folds of their tongue and they are able to avoid unwanted or unexpected clashes with their teeth, soft responses to rider rein use are augmented. Also, by avoiding use of chrome on bit sections where contact with teeth occurs, very uncomfortable and unnecessary electrolysis is avoided. Chrome bit parts have nickel in the metal mix, which generates electrolysis in the horse's mouth whenever their teeth touch the chrome. This is much like what happens when human teeth touch tin foil and generate electrolysis. Other important factors of protection whilst still being able to apply pressure when needed, is the correct use of and positioning of "Chin Straps" (*not curb straps*). The use of a chin strap on the bit rings must be positioned below the rein attachment point (*not above that point*). That is paramount in being able to control/turn their jaw, when necessary to use sudden pressure, without hurting their cheek/lip edges and/or teeth. Chin straps prevent sliding a bit through their mouths whenever you need to use single rein pressure to one side or other.

**Permission is granted for me & Essex Rider to print parts of an article titled "Study: Horses Prefer Less Rein Tension" by Christa Lesté-Lasserre, from a USA report in The Horse.com, an imminent guide to Equine Health Care, by the Editor Stephanie Church. 08/11/ 2010 Article # 17218.*

Ya'll ride safely and I hope this has been a helpful article & Study report.

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