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As scientists seek to improve their knowledge Swiss researchers have been focusing their attention on how various saddles influence—or don't influence—horses' movement.

Saddle type did not appear to impact movement in a group of Icelandic horses, said Katja Geser-von Peinen, DVM, clinical researcher in the Department of Sports Medicine at the Equine Clinic of Vetsuisse Faculty, in Zurich, Switzerland. The team chose to study Icelandic horses because their shoulder movement—often thought to be impeded by saddles—is considered an important criterion in their special gaits, including the four-beat tölt.

“Icelandic horse riders often think that they give better movement, but our research shows that the kind of that at all,” she told *The Horse*.

However, the study results did confirm previous research indicating that the kind of saddle does affect pressure distribution on. Specifically, treeless saddles caused the highest pressure points and were least successful at distributing the rider's weight.

“In Icelandic riding populations it’s popularly supposed to fit all horses and allow more freedom of movement, but obviously neither of these concepts is true,” she said.

In her study, Geser-von Peinen and colleagues investigated 12 Icelandic riding horses on a treadmill at walk and tölt ridden by two individuals of average weight (65 kilograms and 75 kilograms, or 143 pounds and 165 pounds). The horses were tested wearing a dressage saddle, a classic Icelandic saddle (which moves rider’s weight towards the size-fit saddle), and a treeless saddle. They recorded the saddle pressure, the force of the legs, and the limbs’ movement patterns (kinematics).

Treeless saddles caused significantly more concentrated pressure at the front of the horse’s back, often directly on the withers. Meanwhile, the saddles with trees distributed pressure more evenly, with a greater concentration toward the back of the horse’s back.

There were no differences in leg movements and forces among the different saddles used, she said.

Geser-von Peinen said her study results suggest that riders should select saddles based on fit and pressure distribution, rather than on how they believe that saddle might affect horses’ movements, regardless of

“It doesn’t make a difference if the saddle is a treeless saddle or a tree saddle. It has to fit. From the horse’s standpoint it’s the same. It could be an English saddle, or a Western saddle, or any

Riders should be particularly careful about the pressure caused by treeless saddles, even in horses with seemingly rounder backs. The problem is that it doesn’t distribute the weight of the rider because of the absence of a tree,” she said. “Even in Iceland, the treeless saddle is not the best choice.”

The study, "[Saddle pressure distributions of three saddles used for Icelandic horses and their effects on ground reaction forces, limb movements and rider positions at walk and tölt,](#)" was published in *The Veterinary Journal*.

ABOUT THE AUTHOR



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Christa Lesté-Lasserre is a freelance writer based in France. A native of Dallas, Texas, Lesté-Lasserre grew up riding Quarter Horses, Appaloosas, and Shetland, specializing in creative writing, from the University of Mississippi in Oxford and earned a bachelor's in journalism and creative writing with a minor in sciences from Baylor University in Waco, Texas. She currently keeps her two Trakehners at a competition stable east of Paris. Follow Lesté-Lasserre on Twitter [@christalestelas](#).