

CAN BRIDLES BENEFIT PERFORMANCE?

HOW MUCH CAN A CORRECTLY FITTED BRIDLE BENEFIT A HORSE'S WAY OF GOING AND PERFORMANCE? WE ASKED **VANESSA FAIRFAX**, FROM FAIRFAX SADDLES ABOUT THE FASCINATING FINDINGS FROM RESEARCH BEHIND THE COMPANY'S NEW BRIDLE DESIGN CREATED TO HELP AVOID KEY PRESSURE POINTS.

While we've long been aware of the benefits of a correctly fitted saddle, recent ground breaking research from Vanessa Fairfax and the team at Fairfax Saddles has shown that there are many beneficial effects from using an innovative bridle designed to alleviate crucial pressure points, which in turn encourages greater freedom and expression through the horse's paces.

RESEARCH RESULTS

Fairfax Saddles' three-year study into pressures under the bridle and noseband showed how bridle pressure affects the horse's movement.

The study revealed repeatable pressure points under a standard bridle design which related to both the anatomy of the horse's head and the stability of the bridle.

It also showed that pressures under a bridle at key points adversely affected the horse's way of going, and quite dramatically so.

"It should be no surprise that a horse will move his head and neck more freely and happily, take a bigger stride, lift his withers and flex his hindlimbs more if his bridle does not create these pressure points," explains Vanessa Fairfax. "High pressures occur at locations where there is impact with the edges of bones, such as the noseband against the edges of the nasal bone, and the back of the headpiece against the first neck vertebra, as well as under badly positioned buckles."

Very high pressures were also seen in two less expected locations; under the headpiece below the base of both ears and around the temporomandibular joint (TMJ) and hyoid apparatus.

"Below the base of the ears is an important area for muscle attachments that flex the head and neck, and protract the forelimb, as well as many important nerves of the face, ears and head," says Vanessa. "As the muscles work, they expand, and the pressure increases at the same



ABOVE: BRIDLES AFFECT THE TONGUE (1), MUSCLES LINKING THE HYOID APPARATUS TO THE TONGUE AND THE JAW (2), BONES OF HYOID APPARATUS (3), STERNOHYOIDEUS & OMOHYOIDEUS MUSCLES (4), BRACHIOCEPHALICUS MUSCLE – USED TO FLEX THE NECK AND PROTRACT (BRING FORWARD) THE FORELIMB (5), TMJ (6), AND WING OF ATLAS (7) SO CORRECT FITTING IS VITAL.

point in each stride. The horse may fix his head in a more comfortable position (which could be over-bent or with the nose stuck out) to avoid this pressure.

"The little-known hyoid apparatus around the TMJ plays an important role in the horse's performance because it connects to the tongue and to two key muscles: the sternohyoideus, which runs to the breastbone (sternum) and the omohyoideus, which attaches to the shoulder blade (scapula) on each side. This non-rider influenced high-pressure zone links to swallowing, jaw movement and parts of the ear."

DESIGN CHALLENGE

By stabilising and shaping the headpiece, the Fairfax Performance bridle design avoids impact against the back of the ear and the neck vertebrae, along with careful placement of buckles. The pressure-absorbing padding reduces the pressures at the base of the ear over attachments of muscles that flex the neck and bring the forelimb forward – freeing up the head and neck and allowing a bigger stride. The choice and fitting of a noseband also affects the pressure and force exerted under the horse's headpiece, as does wearing an ear bonnet – both of which can affect extension and flexion of the limbs, but perhaps more important is removing the restriction to the TMJ, tongue and hyoid apparatus. ▶

HIGH-PRESSURE ZONES ON BRIDLES

- back edge of headpiece
- front of headpiece
- under the browband
- under the front of the noseband
- under the back of the noseband
- over the crown of the head



LEFT: SCIENTIFIC TRIALS SHOW THAT A CRANK CAVESSON EXERTS LESS PRESSURE THAN A PLAIN CAVESSON NOSEBAND FASTENED AT THE SAME TIGHTNESS. **BELOW INSET:** A DROP SHOULD REPLACE A FLASH NOSEBAND AS YOUR GO-TO CHOICE, ESPECIALLY FOR YOUNGSTERS.



with lower pressures and encouraging a better range of movement,” says Vanessa.

“When fitting, make sure the rings at the top of the Mexican grackle sit well behind the facial crest with the straps pulled far enough through the central pad to ensure it sits centrally on the nasal bone.”

DROP

“The key fitting concern is to adjust the front section to sit squarely on the nasal bone so the bottom edge is supported,”

explains Vanessa. “The cheek pieces of the noseband must follow the facial crest and not pull forwards towards the eye. Pay attention to the corners of the horse’s mouth when fastening the strap under the bit, as, if it pulls the bit too far up into the corners of the mouth it will cause rubbing.” ■

FITTING NOSEBANDS

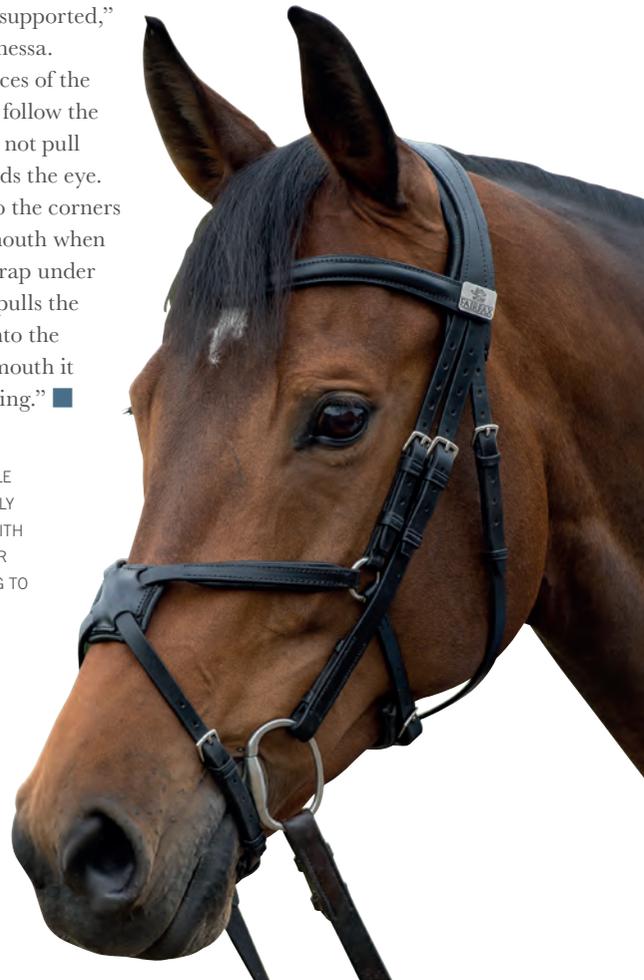
CAVESSON

“If competing in a double bridle, the only option is a cavesson. A crank has the advantages of allowing bending on either side, plus it can be fastened to ensure the buckle doesn’t sit on the jawbone, aggravating this sensitive pressure zone. However, in the wrong hands, a crank noseband is open to abuse from over-tightening, and it’s this malpractice that has led to its bad reputation,” says Vanessa.

“Ensure the cavesson is fitted with clearance for the two main arteries that run below the horse’s facial crest and is not too high, which can affect the horse’s movement quality.”

GRACKLE

“A grackle doesn’t clamp the mouth shut in the same way as the flash and, during trials, it out-performed the flash



ABOVE: THE GRACKLE WORKS PARTICULARLY WELL ON HORSES WITH A SLENDER HEAD, OR THOSE LESS WILLING TO TAKE THE CONTACT.

BRIDLE FITTING TIPS

- A noseband should sit centrally and symmetrically
- If the bit isn’t fitted correctly, the whole unit will be displaced and nothing will work harmoniously
- Make sure all buckles are clear of the lips or jaw bones
- Bridle numbers cause asymmetry around the head. Put them on the saddlecloth instead
- Fly bonnets can aggravate pressure points. If you have to use one, wear it at home for schooling, not just competition days.

To read the full paper from the Journal of Equine Veterinary Science on Fairfax Saddles’ three year study into pressures under the bridle and noseband, please visit www.fairfaxsaddles.com