

HORSE, HEALTH & HOME

SADDLE FITTING

Saddle fit and the female saddle

Women riders are built differently so maybe their saddle should be as well

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We touched upon some of the anatomical differences between men and women in a previous article (May, 2013).

Not widely understood or discussed are the challenges resulting from these differences which are faced by many female riders — back, knee, hip pain, discomfort and pain in the pelvic (crotch) area, and difficulty maintaining proper position and posture (e.g. chair seat) when riding.

There is much knowledge on principles of saddle fitting to the horse, however, saddle fit to rider is not widely understood.

Manufacturing and the trade of saddlery is historically rooted in European tradition, where primarily male saddlers built saddles for male riders. Today the majority of riders are women (with a different pelvic structure than that of men).

If we study the anatomical differences between women and men, we discover that many of the challenges faced by female riders are caused by riding in 'male' saddles. Over the past 35 years, we have studied the science of saddle fit, female anatomy and biomechanics, making us experts in rider and saddle ergonomics.

Let me outline the five key principles to determine saddle fit for women.

1. The width between a woman's upper inner thighs affects the width of the twist she will need in her saddle. The twist is that part of the saddle where the upper inner thighs sit against.

Because of a phenomenon called "Qflexion" (whereby female thighs tend to angle outwards at the hip and back inwards at the knee), women will carry more weight on their upper inner thigh than a man. The leg is pushed forward, and the knee and toes are out at 45 degree angle when a woman sits on a saddle that is too wide between her upper inner thighs.

The position results in a leg that goes out and forward, making it difficult to achieve the 'shoulder-hips-heels' straight line. When a woman rides in a female saddle, the toes point forward and there is more upper leg on the barrel of the horse.

2. The ratio of the length of the upper leg to the length of the lower leg determines the position and/or length of the stirrup bar. Most women have a longer upper leg than a lower leg.

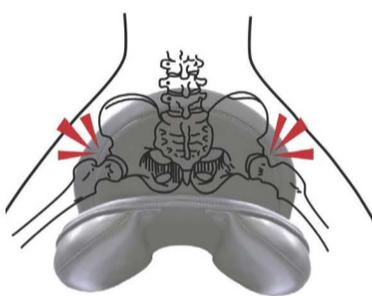
The stirrup bar acts like the fulcrum and the stirrup leather is like a pendulum. With a regular stirrup bar positioned normally, the female's leg will usually end up being too far forward ("get your leg back!" — does this sound familiar?) because the leg will fall according to its centre of gravity.

Therefore, women required extended stirrup bars (or extra-extended). Allowing the stirrup leathers to be positioned further



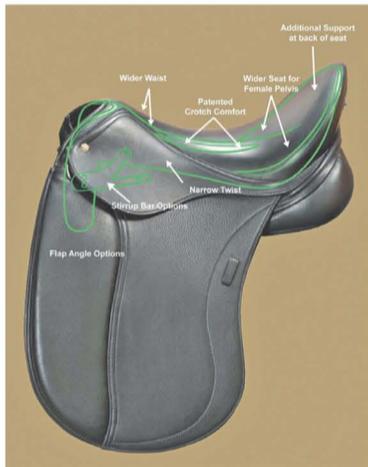
Front view of a woman (left) and a man (right). The female's quadriceps and hamstring muscles are rounder than those of a male's which results in less space between the upper thigh. In addition, the angulation of the hip bone attachment is different; a man's will allow his leg to hang straight down naturally.

PHOTO: DANIELLE SCHLEES



If the twist of the saddle is too wide for the woman's pelvis, hip pain will be the result as she feels 'torn apart'.

DIAGRAM: DANIELLE SCHLEESE



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back will ensure that the leg hangs in the correct position.

Most men have pretty equal leg lengths so that normal stirrup bar length and position is fine.

3. Women's hip bones are articulated at the hip joint differently than men's. Especially female adult amateur riders, who started riding later in life or who don't ride regularly, are challenged to have their legs hang straight, because this articulation causes the legs to naturally angle out.

Men's legs hang straight naturally, but changing the angle of the flap and the position of the thigh roll will address this for women in a female saddle.

If the flap is too straight, the woman's knee comes too close to the front of the flap, and in motion the leg will actually go over the flap. Forcing this ("get your leg back!" — again!) can move the pelvis forward,

Often the seat twist and seat width are mixed up, and she will end up buying a saddle with a wide twist rather than the wide seat she actually needs for her pelvic shape.

As a result, her knees and hips will angle out instead of being able to hang straight down, causing discomfort (when the twist is too wide, and the seat is too narrow).

The distance between the seams on the seat should be wide enough to allow the female seat bones to sit on the padding — if this is too narrow, it feels like sitting on a ridge, or the seat bones fall off the edge of the seat.

5. The male pelvis has a higher pubic symphysis (ps) — when he sits in a balanced position with his spine perpendicular to the ground, his ps will be tipped upwards and not contact the saddle.

When the female sits on the sad-

dle with her spine perpendicular to the ground, her ps is much lower and closer to front of saddle and can contact and rub. This can result in recurring bladder infections, even bleeding.

Pelvic tilt is also affected by the saddle model and the saddle balance.

When a male rider sits on a male saddle, he can balance on his seat bones as on a bipod, whereas the female finds her balance on a male saddle in a tripod position — which means her ps will be in contact with the front of a saddle.

The Schlee patented AdapTree® has a cut out in the front of saddle tree to form a channel for space between the ps and saddle. This channel is filled with foam and is very forgiving to the position of the rider in balance — for both men and women — which makes it unique on the saddle manufacturing market.

resulting in back pain and discomfort.

Proper flap positioning is another small point in accommodating the female anatomy in saddle design.

4. Most mistakes occur during measurement of the width of the twist and the width of the seat. The twist is that area of the saddle which is actually located between the thighs, whereas the width of the seat is determined by the space between the seam running along the edge of the seat.

In the male pelvis, the seat bones are much closer together and the distance between the two seat bones is much smaller, therefore the male comfortably fits into the padded part of most saddles.

The female pelvis has the seat bones much further apart, so when she rides in a 'male' saddle, she sits on the seat seaming, which is uncomfortable.