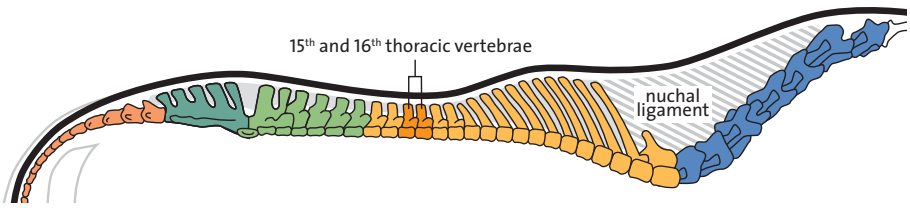
Barefoot®
riders who care

Physiological Saddle Systems

Tack & riding gear with your horse's well-being in mind

The Barefoot Saddle-System



by Equine Physiotherapist Sabine Ullmann

What makes our Barefoot Saddle-System so special?

As an Equine physiotherapist, I had long been searching for a saddle system that would fit even difficult backs, and which would adjust flexibly to the back at all times. In my deliberations I especially considered the anatomical factors of the horse. This meant a design that would accommodate seasonal, age and training caused changes in the shape of the horse's back.

It was important to me to develop a saddle system that guaranteed sufficient spine clearance and, at the same time, would place the rider, or more specifically the riders' weight, over and into the horses' centre of gravity.

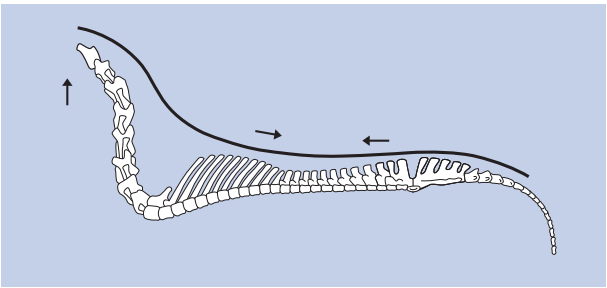
My considerations that have led to the development of the Barefoot Saddle-System are explained on the following pages.

1. The horse's backproblems
2. Poor exterieur of the horse
3. Limitations of a rigid saddle tree
4. The horse's back as viewed by a physiotherapist
5. Preferred saddle area
6. Why is the Barefoot Saddle-System humane for horses?
7. The Barefoot – a healthy solution not only for the horse
8. Individual customer service

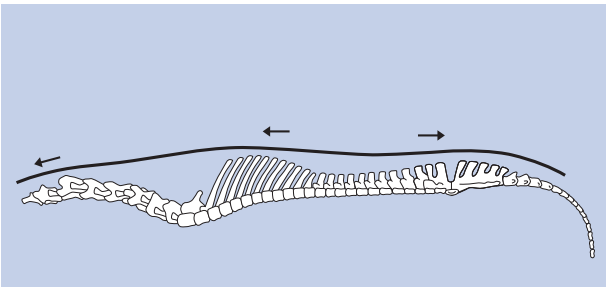
1. The horse's backproblems

Unfortunately, these days back problems are among the most common medical conditions of riding horses, besides lameness, which also can be frequently caused by problems of the back. Several causes have lead to this development:

One of the most common causes can be found in a bad seat and/or wrong influences from the rider. The horse never learns to lift the back, is not correctly on the bit, but is 'pulled together'. This will show as a 'bulging out' of the lower neck, or as hollowing of the back.



Wrong:
Artificial collection by "pulling together":
When a horse hollows it's back, whatever the reason, the spinous processes approach each other. Long-term, this will often lead to kissing spine syndrome.



Right:
In a horse ridden correctly, long-and-low, the spinous processes will move apart and be more upright. The spinous processes of thoracic vertebrae 14 – 16 are standing up vertically.

2. Poor exterieur of the horse

Some horses have conformational faults that can predispose them to back problems. Sadly, these horses often end up in the hands of inexperienced riders due to their lower price.

Horses with such anatomical difficulties should be corrected by experienced hands. Such a horse is not as wear-resistant as a horse with the preferred conformation. For example, on a horse with a hollow back, the spinous processes stand even closer and grow together more quickly. Finding a regular saddle that fits well is almost impossible.

But most commonly an ill-fitting saddle is to blame for the back problems of horses:

3. Limitations of a rigid saddle tree

There are countless ways in which a saddle with a stiff tree can be 'ill-fitting'.

Here are a few examples:

- The saddle pinches at local pressure peaks or in larger areas.
  Result: the pressure causes local or even widespread disturbed blood flow. This leads to muscles which aren't sufficiently supplied and thus become cramped – eventually followed by a decline and even distruction of parts of the muscling. This often can be noticed in the shoulder area, where many horses show "typical" hollow spots where the saddle pinches.

- The saddle tilts backward: higher in front than in back.
  Result: the horse experiences massive pressure in the loin (over the lumbar vertebrae) and in the kidney area. Often such a saddle will also lie on the horse only at the front and back, not in the middle (bridging).

- The saddle sits too far forward.
  Result: the shoulder blades are squeezed and bruised; the mobility of the shoulder is blocked. Lateral movements and extended gaits cause pain.

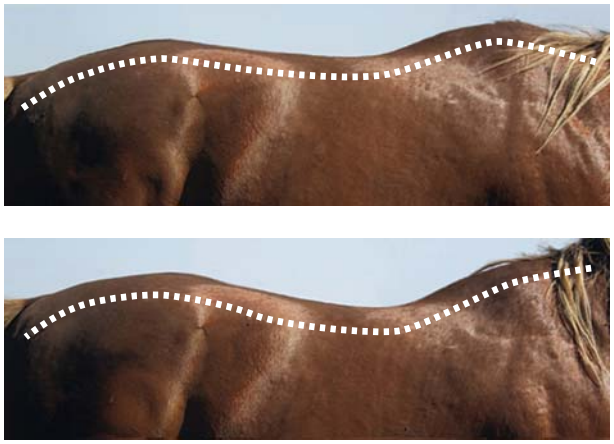
- Saddle sits lop-sided. This could be due to weaker muscles on one side of the horse, or be caused by an incorrect seat of the rider.
  Result: Worst case scenario, the saddle sits crooked or at an angle to the spine instead of parallel with it. In this case, weak muscling cannot be corrected and will even get worse and the horse will have problems bending.

Of course it should be self-evident that a horse can only move relaxed and loose if it is free from pain. Every pressure point results in tense muscles, getting out of step, stumbling, and so forth. Relaxed and carefree riding becomes impossible.

4. The horse's back as viewed by a physiotherapist

When a horse walks on a loose rein and with head held high, the back shows, from anatomical causes, more curvature – the back drops, sinking downward. If the horse is put correctly (!!) on the bit or is ridden long and low (head fully stretched out forward/downward), this curvature changes, the back is lifted up and the spine is 'arched up'.

This process can be observed on every horse/pony because it is bio-mechanically caused by the nuchal ligament and other ligaments of the back which connect the back of the skull to the lumbar vertebrae, combined with the working of the back and abdominal muscles.



The photo shows the same horse
with different head and neck carriage.

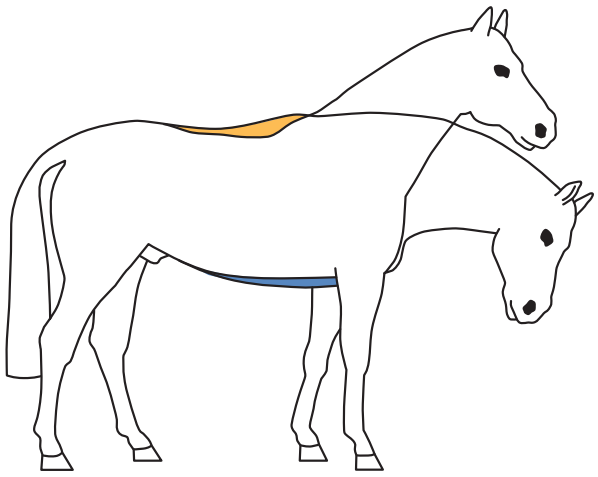
Every horse has a different back. Additionally, a horse's back changes constantly, not only caused by age, training and/or seasonal changes:
During riding, the horses' back is in constant motion and changes shape differently, depending on the degree of collection, bend and head height.

The difference in back height caused by this is clearly visible and can be, depending on the horse, up to 5cm/2 inches. A saddle with a tree is too rigid to adjust to this difference.

The flexible Barefoot, however, can at all times adjust to the top line and its changes, without limiting the horse in it's movement. Additionally, it places the rider, or more specifically the riders' weight, exactly over the center of gravity of the horse.

The thoracic spine of the horse is not naturally created to bear a riders' weight. It follows, then, that the goal of training must be to enable the horse, by developing its muscles, to carry our weight without sustaining damage.

In order for a horse to truly become a 'riding' horse it must learn to lift its back while being ridden. Through this arching up, this flexing of the thoracic spine, the spaces between the vertebrae open wider, the muscles get better blood supply, and the true sideways bend of the thoracic spine becomes possible. Should a badly positioned, stiff saddle disturb this sequence of movements, or the rider sit too far back in the saddle, this goal cannot be reached and all sorts of damage ensues.



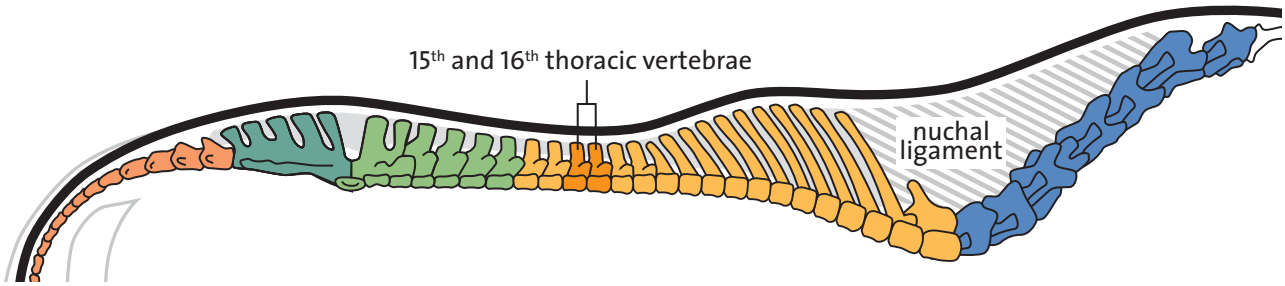
The difference in back height

5. Preferred saddle area

Unfortunately, it is a widespread belief that a saddle should have the largest possible area of contact with the horses' back.

If one has a closer look at the horses' back, one discovers that, especially with short-backed horses, there is very little 'suitable space' to sit on. The shoulder shouldn't be limited in it's movement by the rider's weight, because the scapula (shoulder blade) has on it's top about a hand's width of cartilage. This material can become inflamed, or at least painful, if a stiff saddle is constantly rubbing on it as it moves. This means that the rider should sit behind the shoulder.

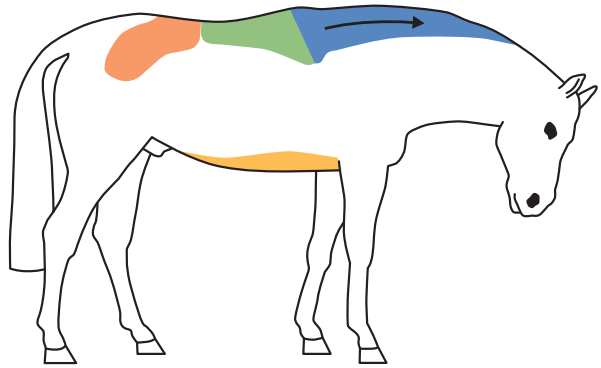
Because the spinous processes of the vertebrae of the thoracic spine (T1 – 18) tilt backwards, towards the tail end of the horse, but change their direction (T15 is vertical, T 16, 17 & 18 are leaning forward, towards the horses' ear), it is difficult for a horse to arch the back if the rider is burdening the point (around T15) at which the spinous processes come very close to each other. This arching of the back is very important (in every style of riding!) to carry the riders' weight, allow better blood circulation to reach muscles (and thereby allow muscle development), and enable bending the thoracic spine. The rider must therefore sit before this critical point (T 15).



What space remains for the rider?

The area behind the withers (T 9), to just before the point at which the spinous processes approach each other. In German, this is the so-called saddle-area where the rider is automatically sliding in while riding without a saddle, and this area is, in short-backed horses, not much more than two hands wide, on longer-backed horses slightly more. Especially with long-backed horses it is important to sit in this correct place, because the span of the 'bridge' of the back is longer. Such a horse often has a hard time stepping under and putting more weight onto the hind legs. Another reason why it is most comfortable for the horse to carry the rider's weight on this spot is that its center of gravity is under this area. This way, the horse can best balance the weight on its back.

Positive Effect of the Barefoot Saddle-System



Relaxation of the trapezius muscle
Positive effect: Horse is stretching into the bridle

Rear trapezius/back muscles free of pressure
Positive effect: Horse is moving with arched up spine

Croup muscle without pressure points
Positive effect: Better engagement of the hind quarters

The arching up of the back will also activate the abdominal muscles
Positive effect: Training of the abdominal muscles

Pressure free saddle area
Positive effect: Better blood circulation of the muscles

6. Why is the Barefoot Saddle-System humane for horses?

The Barefoot can be set over the shoulder, because the fork or pommel insert can move along in our supple nubuck or softleather and is not weighed down by the rider and pressed onto the scapula. Therefore the Barefoot allows the rider to sit in the correct area, without impeding the horses' movement.

Additionally, the spine stays free and allows the horse (if ridden correctly) to lift the back underneath the rider.

The built-in **VPS System** placed left and right of the horse's spine also insures an even spread of the rider's weight along the saddle area, without punctual pressure, together with an all-time, all-movement fit.

Due to the flexibility and adaptability you can use the Barefoot on almost every horseback. Front inlays in different sizes and material en-sure a proper fit on the horse's shoulder.

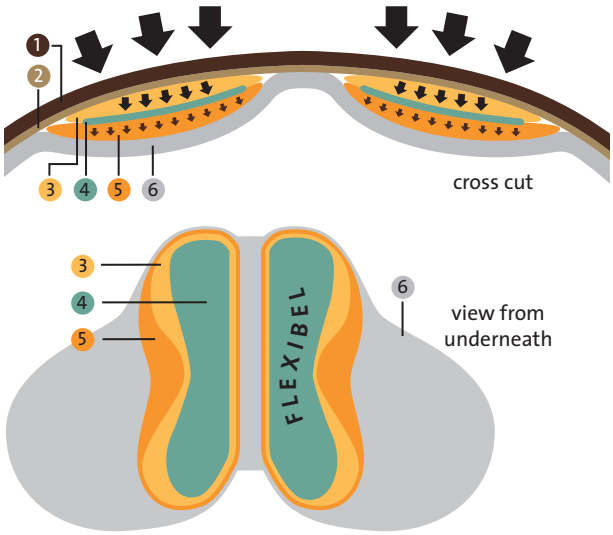
To avoid pressure points in the loin area, the Barefoot is equipped with a soft cantle, which adjusts in all directions. Due to the hight of that cantle and the deep, soft seat, the rider is safely framed in the saddle.

Whether you are just starting your horse, have an older horse with a swayback, a roly-poly Haflinger, or a Warmblood with high withers, the Barefoot lays the foundation that allows your horse to carry you for all its years as a riding horse with a healthy back!

The Barefoot adjusts its shape to all kinds of different and often problematic horse backs, making it ideally suited to be used on different horses. Often it is used in riding stables which cannot buy a saddle for each individual horse, or by breeders and dealers whose stock changes frequently.

Owing to its flexibility, it is also well suited for starting young horses, which will steadily change shape through the ongoing muscle development. With the Barefoot, you create the ideal conditions for a young horse to build up the 'correct', weight bearing muscles, without being hampered by a rigid tree.

Components of the VPS system:



1. Top material (leather or Drytex®)
2. cushioning PU foam layer
3. shock absorbing Elastomer, layer 1
4. pressure distributing Polymer layer
5. pressure absorbing Elastomer, layer 2
6. equalizing fleece lining

7. The Barefoot – a healthy solution not only for the horse

It is not just the horses that are comfortable with the light and flexible Barefoot:

Our customers value the comfort and the closeness to the horse. Numerous trail- and endurance riders say enthusiastically that they can sit for hours in the Barefoot and feel like they are riding 'on clouds'.

Riders that use a lot of seat or weight aids find that the aids can be given much finer and more gradually.

The Barefoot is also appropriate for riders with back problems. Many of our customers complain that they developed back pain from riding in treed saddles, because the rigid tree transmits the horse's movements as jolts. Many have already had slipped disks and their doctor advised them to stop riding. Impossible for a horse-lover!

In the Barefoot, these riders can ride pain free again, because the horses' movement is transmitted much more softly.

This 'wave-shaped', soft and close transmitting of the horses' motion allows even beginners or riders with disabilities to feel the rhythm of the horse.

8. Individual customer service

Many of our customers come to us only after years of being on a 'saddle odyssey'. These customers buy saddles with the assurance that their horse has been well fitted but then back problems develop or are not resolved and the 'odyssey' continues. Best case: tense, cramped muscles, worst case: saddle sores or even kissing spines.

Constantly having the saddle refitted or buying and selling saddles aren't just a financial burden, but also cause emotional stress.

How can we help?

Well, first by explaining the anatomy of the horses' back and, in this context, showing where and when a stiff saddle has it's limitations, and what the clear advantages of a Barefoot are.

That's why we place great importance on individual talks, help and explanations for the horse owner. Our team of experienced riders with an education in physiotherapy will be pleased to help you. Before or after buying your saddle – we won't let our customer down.

We see our work first and foremost as helping the horse. That is why we honestly recommend, before buying a saddle, to have a chiropractor or osteopath examine the horse, if any problems seem to warrant it.

Every rider is responsible for the well-being of his horse and we like to support with our horse-friendly equipment.

The Barefoot creates optimum conditions for horse-friendly riding and therefore relaxed riding.
It cannot however replace correct handling of the horse!

Barefoot® riders who care

Physiological Saddle Systems

Tack & riding gear with your horse's well-being in mind

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