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riders who care

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

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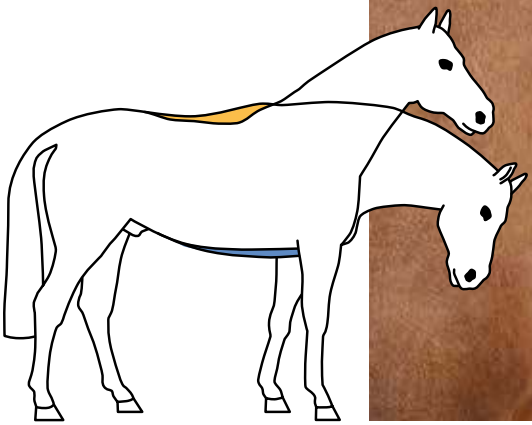
Nr 1

Horseback and Saddle

Why is the Barefoot Saddle System horse-friendly?

by Equine Physiotherapist
Sabine Ullmann



Horseback and saddle – an unsolvable problem?

Founder of Barefoot
and Equine Physiotherapist
Sabine Ullmann
with Santiago

Horseback and saddle – we are faced with a tricky problem. Traditional, rigid saddles are not really suitable to achieve optimal training results. Too often do I see a horseback where the saddle has literally ‚burnt' itself into. Often horses go lame quickly due to a restricted back.

As Equine physiotherapist, I had long been searching for a flexible saddle that will consistently adapt even to more challenging horsebacks.

In my development of the saddle system, I paid particular attention to the anatomical factors of the horse and the seasonal, age and training-related changes to the horse's back.

Most problems, when dealing with our four-legged friends, could easily be eliminated through fair and horse friendly training and the choice of a horse friendly saddle.

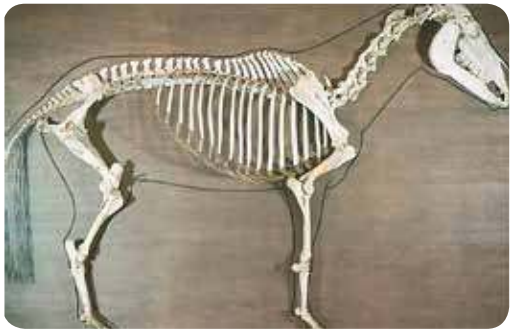
Wouldn't this be nice – a healthy, motivated horse, no tenseness, no back problems, no vet fees, no thoughts „What am I doing wrong...?" ...and all this really for a small price: Rethink! Ignore tradition and the norm and embrace a „different" saddle.

1. The horse's back from a physiological point of view

Over a lifetime, the backs of our riding horses have to endure a great deal. Reason enough to view the horse's back from a physiological point of view: The horse's back is not really made to carry a rider and saddle.

The spine is suspended between the shoulder blades and pelvis like a suspension bridge and therefore not supported by the legs (see photo of skeleton below). The suspension between the shoulder blades is via large deep lying muscles that carry the chest.

The horse is designed for speed and endurance – a weight on his back was never intended by evolution.



The spine of the horse is a very complex structure consisting of bones, ligaments, muscles and nerves. It meets various tasks in the body:

- Support- and holding function
- Attachment area for muscles
- Protection of the spinal cord

Numerous muscles attach to the vertebrae and ensure the mobility of the entire spinal structure.

In the centre of the vertebral body lies the spinal canal through which the spinal cord passes. Nerve tracts branch off the spinal cord and transport information between the brain and organs, muscles and other parts of the body in both directions. As the central nerve system controls and monitors all organs and tissues, uninterrupted information transport in both directions has to be guaranteed. Any blockages, usually caused by the rider through overloading or wrongly placed riders and saddles, can interfere with the information exchange and additionally hinder any muscle buildup, as oxygen exchange is squeezed by pressure.

A vicious cycle begins as a badly muscled or hollow back looses all ability to carry the weight of the rider together with the evasive posture of the horse which leads to further blockages and tension.

Only through correct schooling under a well-fitted saddle will the horse learn to arch his back and step under with his hind legs.Only through that will the horse develop the necessary muscles which will stabilize thespine sufficiently to carry the rider's weight.

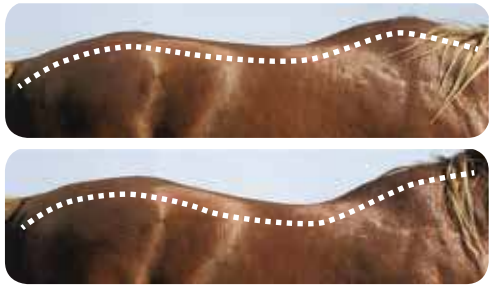
2. The horseback requires freedom of movement

Every horse has a different back. Additionally, a horse's back constantly changes through age, training and/or seasonal changes. During riding the horse's back is in constant motion and shapes itself differently depending on the degree of collection, bending and head height.

If a horse walks with his head held high, anatomical changes in the back cause more curvature – the back drops and lowers. If you ride with more collection e.g. forward/downward this curve will change, the back lifts and the spine arches upwards. This change can be observed in any horse as it is biomechanically caused through the combined work of the back and abdominal muscles coupled to the function of the nuchal ligament which connects the back of the skull to the lumbar vertebrae and is responsible for the respective arching.

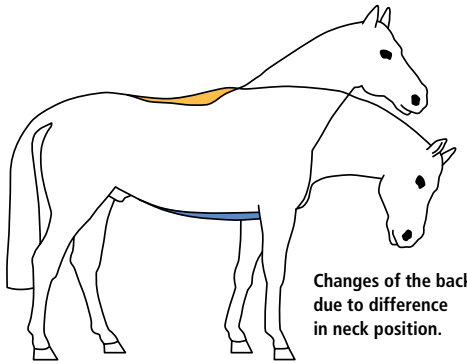
The height difference caused by variable ‚arch tension' is clearly visible and, depending on the horse, often more than 5cm. A saddle with a tree and also many saddles with flexible trees are too rigid to compensate for these differences.

The flexible Barefot saddles can however, at all times, adjust to the changes in the topline without restricting the horse's movement. It also places the rider e.g. the weight of the rider exactly at the horse's center of gravity.



The two photos show the same horse simply with different head and neck carriage

The thoracic spine of the horse is not naturally designed to carry the rider's weight. The aim of the training must therefore be to allow the horse to carry our weight without casuing damage by building up muscle.



Changes of the back due to difference in neck position.

Important: The horse will only turn into a riding horse once he has learnt to lift his back. Through this arching and the flexion of the thoracic spine, the spaces between the vertebrae opene wider, the muscles receive better blood supply and the sideways bend of the spine becomes possible.

This goal cannot be reached if a wrongly placed, rigid saddle interferes with this movement or the rider sits too far back.

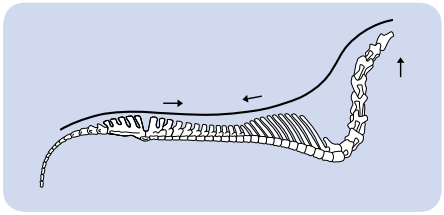
3. Equine back problems

Most common medical conditions in horses are back problems followed by lameness which is often also caused by underlying back problems. Therefore sport horses despite excellent breeding are on average only used for 3–4 years before being discarded, lame, have back problems or they often even end up at the slaughterhouse considered unrideable – reason enough to finally enforce a change in attitude, training and horse tack!

Numerous circumstances have led to this development. Often this is caused by a bad seat and wrong influence of the rider. The horse is not taught to raise his back, nor flex at the poll but through pulling at the front and pushing from the back simply pulled together. This manifests by the ‚bulging out' of the lower neck and by hollowing of the back.

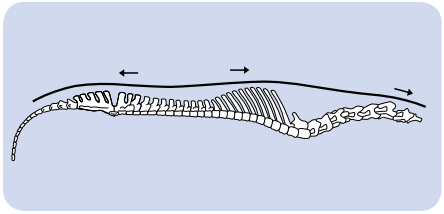
To the non-expert these horses often look as if they are being ridden correctly when in reality they are far from relaxed but are only trying to get themselves into a frame to withstand the pressure of the rider.

Outwardly the picture of horse and rider might look in harmony but the spine of the horse looks as follows:



**Artificial collection by ‚pulling together' of the horse: The horse hollows his back, the spinous processes approach each other.
A ‚candidate' for kissing spine syndrome.**

Back-saving riding forward/downwards:



In a horse ridden correctly, forward-downward, the spinous processes will move apart and be more upright.

The spinous processes of thoracic vertebrae 14–16 are standing up vertically.

4. Development of saddle area – danger to the horse's back

Sadly, even in professional circles, we often hear that the horse's saddle area only develops in the breaking in phase. What it really means is that the saddle (not optimal) simply squashes the muscles and they then atrophy – usually visible by often seen dimpled, concave dents left and right of the withers. Similar to these sample photos:

Every rider has seen horses which such pronounced saddle areas, but only few realize that this is not down to nature but caused by the saddle. Whoever considers ‚development of saddle area' positive, in reality causes harm to the horse.

Only a few are aware what really happens:

- The saddle ‚brands' the horse
- where you should find muscle only dents and indentations develop
- under the saddle blood supply to the trapezius is restricted causing it to atrophy
- the saddle leaves an imprint on the back caused by pressure
- the flight animal horse yields to pressure sags its back instead of arching it

A horse ridden in a Barefoot Saddle shows no sign of a ‚developed saddle area' – on the contrary muscle develops in the area were conventional, rigid saddles cause atrophy e.g. the trapezius protrudes as concave muscle cushion, clearly in contrast to the dents!

Clear demonstration of the horse-friendliness of the Barefoot Saddle System.

We all want muscled horses – horses whose muscles do not disappear under the saddle. We want to make our horses fit so they can carry our weight. Muscles should develop not atrophy – surely all riders agree?

Horseback and saddle

An athlete with tight shoes cannot achieve his best time in a race.

Just as you cannot expect performance out of a horse with a sore back!

It is high time to recognize what really happens under a conventional saddle. Let's have a closer look:

Horses suffer from muscle atrophy, recognizable by narrow bony withers and dents on left and right, dipped backs and clearly visible spinous processes. No horse is born this way! The rider shapes his horse, sadly often through the use of wrong ill-fitting saddles. In reality these backs simply suffer from muscle wastage = muscle atrophy and this goes against any training, any schooling and more importantly against the health and life expectancy of our four-legged friends!

Horses that already suffer from problem backs can with sensible therapeutic treatment and a Barefoot Saddle again build up muscle. Depending on how badly the muscle fibers are already glued together, the back can recover. However, ideally the muscles should never be allowed to atrophy in the first place.

Here are several examples of photos that were kindly made available to us courtesy of our customers.

Before
The horse before training with a Barefoot Saddle. Clearly visible are the beginning of dents behind the withers/shoulder. The saddle clearly leaves a mark on the horse's back.

After
The horse after 6 weeks of training with a Barefoot Saddle.
The dents have disappeared.
The hindquarters have clearly developed muscle.
That is how a riding horse should look!

Before
The photo is from a time before using a Barefoot Saddle. The back clearly shows an imprint of the previous saddle. The abdominal muscles are slack.

After
This photo was taken only a few month later.
The horse is now ridden in a Barefoot Saddle.
The back is clearly more muscles and the neck region also stronger. The dents behind the withers had disappeared – the horse altogether seems more compact and sturdy and can therefore carry weight on his back without causing damage.

The horse under a Barefoot Saddle can arch his back – as it does not restrict the movement of the horse – and therefore allows for the perfect conditions to develop muscles and achieve changes in a short period of time.

Before
The photo shows a horse with poor back muscles. The saddle has already ‚branded' the back.

After
Clear improvement visible after a short period of using a Barefoot Saddle. The back is again more balanced. Muscles build up.

After
The horse after 6 month under a Barefoot Saddle is hardly recognizable. Not only the back but also croup, gluteal and abdominal muscles, have changed dramatically.

That is what we want to see – that is how the way to a healthy riding horse looks!

5. Fitting problems of conventional saddles

In addition to te lack of mobility and adaptability of conventional saddles to the various positions of the horse's back, saddles were originally developed for the rider not the horse. Even today the saddle tree is build based on the shape of a ‚Standard Horse Back'.

The choice is vast: Nowadays you can even find race specific saddles such as saddles especially for Haflingers. This is vey confusing in my opinion as every Haflinger has a differently shaped back.

There are narrow withers as well as short backs, swayed backs, straight backs, high withers, almost invisible withers – we simply cannot standardize the horse's back!

6. Stages of training – The suppleness

How you sit on the horse is not only predetermined by the horse's back but also by the seat of the rider and the fit of the saddle. It is generally known: Only a relaxed horse can be supple. Suppleness is an important step in the horse's training, if not THE most important step.

Suppleness is initially achieved – and every well-trained instructor will agree – through relaxation. Relaxation however requires two components:
1. Physical relaxation
2. Relaxation of the physis = muscles

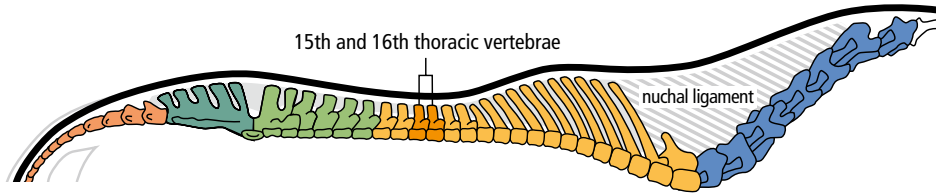
A horse that cannot relax under the saddle, cannot become supple. because of that all other stages of training cannot be reached as contact, momentum, straightness, collection follow suppleness.

What makes a saddle unsuitable?

Here are some examples:

- **A** The saddle tilts backward, sits higher at the front than back.
  Result: The horse experiences massive pressure in the loin and kidney area.
- **B** The saddle bridges, pressure is not distributed evenly on the back.
  Result: Muscle atrophy in the area of the withers and lumbar area.
- **C** The saddle its too far forward.
  Result: The shoulder blades are squeezed, the movement of the shoulders restricted. Lateral movements, toelt and extended gaits cause pain.
- **D** The saddle sits lopsided. This could be due to the natural skewness of the horse or a incorrectly seated, unbalanced rider.
  Result: Saddle does not sit level on the spine. This counteracts the correction of the skewness. The horse has problems bending.
- **E** The saddle is not flexible.
  Result: Muscles are squeezed and atrophied.

7. The optimum bearing surface of a saddle



The spine of the horse can carry weight best between the withers and the 15th thoracic vertebrae. It is there that the horse can balance a saddle and rider's weight best.

Unfortunately, there is a widespread belief that a saddle should have the largest possible area of contact with the horse's back. However, having a closer look at a horse's back you will find that especially horses with short backs have actually very little ‚suitable space' to sit on.

The movement of the shoulder should never be restricted by the rider's weight because the scapula (shoulder blade) has cartilage at the top, approx a hand's with wide. This cartilage material can become sensitive due to pressure and cause pain when a rigid saddle tree rubs against it during motion. That means that the rider has to sit behind the shoulder.

The spinous processes of the thoracic spine slope – as seen from withers- backwards, but change their direction (15 is vertical, 16, 17, 18 are leaning forwards towards the horse's ears). When the rider loads the area where the spinous processes are vey close to each other (near BW 15) the horse will find it very difficult to arch his back.

The arching of the back is, however, (in any riding style) necessary to firstly carry the rider's weight, secondly to allow for uninterrupted blood supply to muscles (and therefore allow new muscle development) and thirdly to enable sideway bending of the thoracic spine. The rider should therefore sit in front of this critical point (T 15).

What space remains for the rider?

Only the area behind the withers (T9) to just before the point at which the spinous processes approach each other (T15).

In short backed horses this area is no larger than approx 2 hands width, in longer backed horses slightly more. But especially in horses with long backs it is extremely important to sit in this area because the span of the ‚bridge' of the back is much longer meaning the back has a tendency to sag quicker.

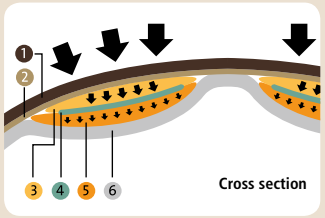
Such a ‚long' horse often struggles stepping under and carrying more weight on the hind legs. In addition, the centre of gravity of the horse lies between the front solid ribs and the saddle area. A rider that is seated above the centre of gravity will allow the horse to carry his weight and balance himself.

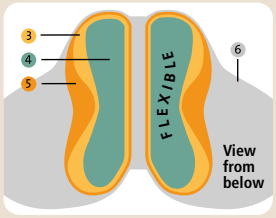
8. Why is the Barefoot Saddle System horse-friendly?

The Barefoot Saddle can be placed over the shoulder as the pommel insert, which is embedded is soft Nubuck-or Soft leather, moves with the horse. It is not weighted down by to rider to press onto the scapula (shoulder blade).
Therefore the Barefoot Saddle allows the rider to sit in the correct saddle area without restricting the horse's movement. The horse is able to lift his back at any time without restriction as long as the rider sits correctly.
Additionally, the saddle allows for spinal clearance as shown by the sweat pattern on the right.

The Barefoot's build in VPS® System also ensures even pressure distribution of the rider's weight along the whole length of the saddle with no pressure points.

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

Why VPS® System?

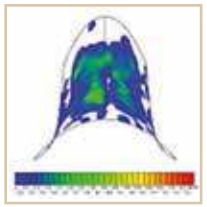
The VPS® System distributes the rider's weight over the widest possible area that is able to carry weight between the withers and the 15./16. vertebrae. Pressure points are eliminated as pressure readings clearly show.

The ‚panel construction' left and right of the spine allow for a distinct spinal clearance over the spinous processes and guarantee constant spinal and wither clearance.

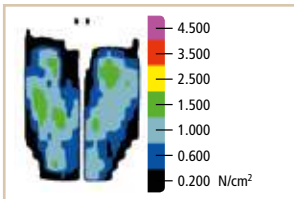
The VPS® System is noticeably more narrow than a conventional saddle panel and therefore allows for very subtle communication with the horse which leads to much finer riding. The rider can feel the different areas of the horses back muscles work under the saddle.

The VPS® System distributes the rider's weight in an optimal way over the largest possible area of the back. Pressure points are avoided, yet the saddle with VPS® System – different to treed saddles – can move with the horse's back. And that in every direction: sideways and up/down.

Due to the VPS® System standing in the stirrups is possible without a problem as the rider's weight is distributed over the whole length of the saddle. The trapezius muscle will not be bruised and can develop. There is no weight limit for Barefoot Saddles with VPS® but we obviously still recommend that the rider chooses a horse that can actually carry his weight.



Pressure readings verify the optimal pressure distribution

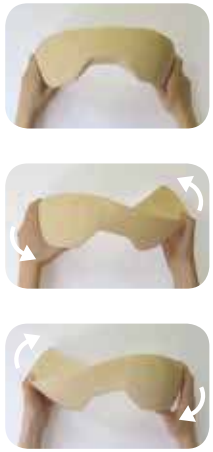


Pressure testing Posting Trot, left handlinke Hand

Horseback and saddle

Due to its flexibility and adaptability Barefoot Saddles work on just about any horse's back. Inserts in different sizes and materials guarantee optimal fit to the horse's shoulders.

To avoid pressure points in the loin area, the Barefoot Saddle has a soft cantle which is flexible in all directions.



Flexible Cantle (rear back rest)

The Barefoot Saddle lays the foundation to a riding horse with a healthy back, who can carry its rider for many years.

The Barefoot Saddle adapts to the most diverse and also problematic backs. Therefore it is perfect for the use on more than one horses and often used in riding schools where it is not always possible for every horse to have its own saddle.

By virtue of its flexibility is is also well suited for starting young horses who change shape due to ongoing muscle development.

With a Barefoot Saddle you will create the ideal conditions for a young horse to build up weight-bearing muscles necessary to carry its rider care-free throughout his life.

WELLington

London

Lexington

Barrydale

Cheyenne

Cheyenne DryTex™

Just Adjust

Madrid

Cherokee

Cherokee Classic

Notthingham

Atlanta

Missoula Nut

Virginia Rose

Arizona Nut

Arizona Rose

Arizona

Nevada

Lazy Mountain

Happy Valley

9. Benefits of the Barefoot Saddle System at a glance

FLEXIBLE in 3 dimensions

- the horse's back can move freely without restrictions in any direction (up/down, left/right)
- the horse's shoulder is not restricted and can always work freely – even when saddle is placed over the shoulder (important with short backed horses)
- Muscle build up and weight fluctuation of the horse are easily balanced without any problems
- the horses usually moves freer and is more content, rider receives a positive riding sensation

LIGHT-WEIGHT

- less weight for the horse and easier to handle for the rider

COMFORTABLE

- comfortable, soft seat sensation for the rider – especially comfortable for riders with various back problems

VARIABLE

- the saddle can be used on different horses without a problem
- stirrup attachment can be freely placed to suit the rider's preferred leg position
- narrow or wide leathers (or indeed fenders) can be used on the same saddle
- seat area can be completely removed and exchanged for a pure sheepskin seat (=ideal fit, no slipping nor crease development)

BARRIER FREE

- unrestricted flow of movement between rider and horse
- horse's movement can be felt much clearer by the rider and therefore more targeted aids can be given
- finer effect of weight aids

GOOD VALUE

- in comparison to conventional saddles
- no need for constant refitting through costly reflocking by saddler

made by Barefoot 100% horse friendly

Barefoot Cheyenne

Amber Bridle 2-in-1

Amber Reins

10. Healthy solution not only for the horse

It is not just the horse that feels comfortable with the light and flexible Barefoot Saddle: Riders also value the comfort and closeness to the horse. Many trail and endurance riders enthuse that they can sit for in a Barefoot for hours and that it feels like riding ‚on clouds'.

Riders who like the gentle approach and use a lot of seat and weight aids, enjoy the closeness to the horse and the ease at which such aids can now be given.

A horse who is not suffering from tensions or limitations stays physically and psychologically healthy and riding is twice as much fun.

We also recommend the Barefoot Saddle to riders with back problems. Many of these riders complain that riding in a conventional saddle causes them back pains because the rigid trees transmits the horse's movements as hard jolts. Many riders who suffer from slipped disks etc have even been advised by their GP to stop riding altogether. Inconceivable for a horse lover!
In a Barefoot Saddle, many of these riders can often ride again pain-free as the movement of the horse is transmitted in a much more gentle fashion. In addition, the rider's back muscles are gently strengthened.

The ‚wave-like', soft and close contact transmission of the horse's movements allows even beginner riders or riders with physical handicaps to easily feel and tune into the horse's rhythm.

How can we help?

Initially by first explaining the anatomy of the horse's back and, in this context, showing where and when a rigid saddle has its limitations, and what the clear advantages of a Barefoot Saddle are. We place great importance in individual rider consultation. For this purpose, we have a team of physiotherapy trained consultants available to give free advise.

We see our work primarily as helping the horse. We therefore offer detailed, unbiased advise which is not dependant on a purchase.
If we notice a problem that warrants your horse to be examined by a physiotherapist or vet we will recommend you to do so.
We are also happy to give advise on training and muscle buildup.

We would like healthy horses! We give you horse-friendly training advise if needed!

Ask our Team of
Equine Physiotherapists or take advantage of our enquiry form at

www.barefoot-saddle.com

beratung@barefoot-saddle.de

Phone: +49 (0) 6272 - 920 500

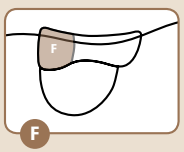
Barefoot Physio
Saddle Pad System
Model
Nevada/Madrid

11. Barefoot Saddle Pads – the perfect complement

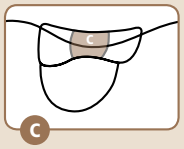
Our Barefoot Saddle pads can be shimmed individually and, in addition, offer great flexibility when it comes to adapting the saddle to the horse's back. You can respond quickly to a changing situation by modifying the shims within the saddle pad instead of reflocking a addle which is not only complex but also expensive.

As a result, the Barefoot Saddle combined with the Barefoot Saddle pad offers an innovative system which allows for the best possible conditions for the horse's back:

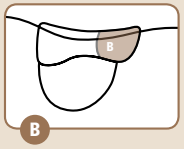
- quick, individual and inexpensive fitting of the saddle to your horse's back
- additional shock absorption for sensitive horses
- targeted compensation of problem areas such as unequal muscular development
- cushioned, soft and non-slip



Front shimming:
Recommended in the following situations:
- saddle too low at the front
- saddle slips onto neck
- rider has sensation of tipping forward
- horse is croup high



Center shimming:
Recommended in the following situations:
- Horse has a pronounced sway back



Back shimming:
Recommended in the following situations:
- saddle slides back
- rider has the sensation of tipping backwards
- horse has loaded shoulders
- horse has a very long back

Barefoot Special
Saddle Pad
Model
Cherokee/Notting Hill

Whoever makes his horse bendy and smooth on curved lines, allows him to stretch forward, trains his fitness, allows him to arch his back and from time to time trots over poles, often does more for the horse's health as anyone who wants the poor animal collected in a dressage seat.

Ida Cygon

Brochures Series Focus Horse – Horse-friendly rethinking

Few hobbies are riddled with so many different opinions.
Therefore, we – the Barefoot Physiotherapist team- invest in honest knowledge, supported by selected horse experts.

Only sound knowledge can lead to changes; though in the equestrian sport incorrect knowledge is, from time to time, spread deliberately.
Why, for example, are outdated traditions still maintained?
Why are horses still suffering under rigid saddles and ‚trainings equipment' used centuries ago just because some lobbyists do not allow change?

Knowledge – For those who feel that there is a non-violent symbiosis other than often claimed between horse and human.
A friendly relationship with a being who deserves to be understood and respected, as he has left tracks next to ours and has accompanied us for as long as we can remember – selfless and tolerant.

Knowledge – that you can courageously go the right, horse-friendly way which will make you both more content:
Knowledge for horse AND rider.

We wish for a horse-friendly world – Do you?

Tip:

Experts who would like to write about horse-friendly subjects are more than welcome. Please get into contact with:
info@barefoot-saddle.de
Mrs. Ullmann

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