

Research: Pliance Measurement of the Mounting Procedure
Conducted by: Society of Master Saddlers, 2/12/10

Aims of the Test:

- To establish the effects of different types of mounting.
- To establish the effects of different riders mounting.
- To establish “best practices” when mounting.

Test Details:

Five riders mounted 2 horses in six different scenarios.

- Unaided from the ground
- Supported on opposite from the ground.
- With a leg up.
- From a low 22 ½” block
- From a low 22 ½” block supported
- From a high 38” block

Data was collected from each of the tests

The Horses Used:

Hanoverian-17.3hh, Bay mare, 11yrs old, in regular work and good condition, fitting a medium/wide saddle well.

Hanoverian-17.0hh, Chestnut mare, 11yrs old, in regular work and good condition, fitting a wide saddle well.

The Riders:

Di Fisher- 5’3”, 126lbs, professional rider

Mark Fisher- 5’11 ½”, 191lbs, experienced amateur

Jonathon Boswell- 6’1”, 176lbs, professional dressage rider

Steff Harrington – 5’10”, 140lbs, working pupil

Vanessa Fairfax- 5’10”, 132lbs, retired show jumper

Equipment:

One used adjustable Fairfax Dressage saddle with med/wide then wide bar fitted. The same girth and saddle cloth were used on both horses.

Observations:

1. When results were read, more than double the peak pressure produced from jumping a 1m40 show jumping fence (18psi) was shown. The peak was at 37psi even with a light weight agile rider. There was actually worse results from a small rider mounting a large horse.
2. Movement of the saddle across the horse’s spine in all manner of methods was extreme. No one method was better here.
3. Pressure on the horses back was in an almost identical position, whoever and however the horse was mounted. Mounting from a block or from the ground made no difference in the psi, just in the length of time pressure was applied. In

- both methods pressure was applied to the opposite side of the saddle, to the one mounted.
4. Technique rather than fitness played a large part. Results were better when the rider pushed up using their legs, rather than pulled up using their arms.
 5. Leg ups put as much pressure on the horse as mounting from a block or the ground. The difference was that the pressure was on the riders side of the saddle, due to the torque as they vaulted.
 6. Position of the riders hands dramatically effected the readings; the worst being the left hand on the pommel and the right hand on the cantle. The best being the left hand on the wither and the right on the off side of the saddle behind the flap.
 7. A supported mount (a person holding the opposite stirrup) from a low block nearly halved the pressure exerted by all the riders.
 8. "Bouncing" when mounting from the ground caused more leverage on the saddle and increased pressure on the spine.
 9. The greater the difference between the height of the rider and the height of the horse had proportionally a far greater impact on the results than technique, weight, or agility.
 10. Horses demonstrate different "counter balancing" actions as riders mount. These horses raised the head and one bent to the right and brought her off her off fore forward.

Mini tests to check saddle set up variables:

1. With saddle cloth vs. without saddle cloth
-No measurable difference
2. Elastic girth vs. non-elastic girth
-No measurable difference
3. Sheepskin pad
-No measurable difference
4. Prolite absorption Pad
-Significant reduction in pressure.
5. Longer stirrup length
-Increased in pressure

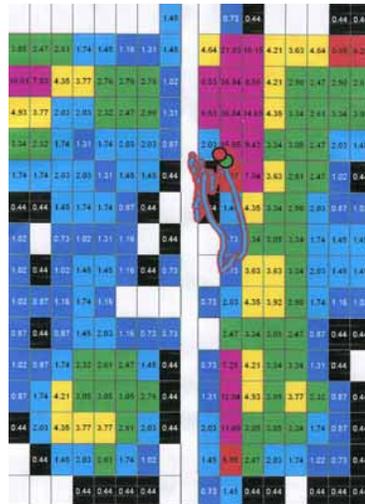
Conclusions:

Best Practices-

- Mounting from a high block, so the rider can more or less step across onto the horse gave the lowest pressure.
- Mounting from a low block supported and a leg-up gave very similar pressures.
- A Leg-up given by supporting the riders knee and ankle caused significantly lower peaks than one given holding the shin and ankle.
- Holding the withers with the left hand and the off side of the saddle panel near the flap produces the least amount of saddle distortions.
- Reducing the number of "bounces" and the length of time "hanging" from the nearside stirrup when mounting from the ground, reduces pressure.



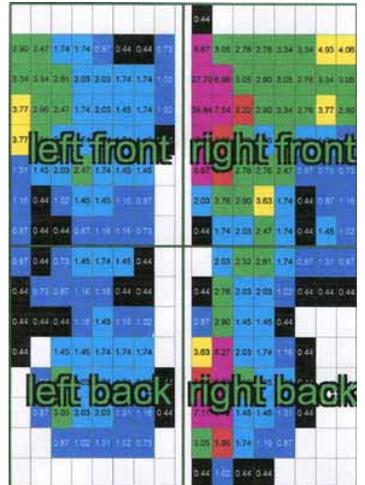
Rider Name: **Mark Fisher (13-1/2 st.)**
 Peak Pressure: **37Psi Peaked Out**
 Mount from ground, unsupported



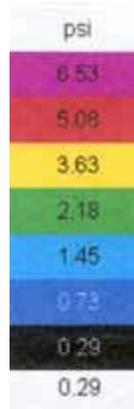
Rider Name: **Di Fisher (8-3/4st.)**
 Peak Pressure: **37Psi Peaked Out**
 Mount from ground, unsupported



Rider Name: **Di Fisher (8-3/4st.)**
 Peak Pressure: **5.1Psi**
 Mount from 38" block



Rider Name: **Di Fisher (8-3/4st.)**
 Peak Pressure: **37Psi Peaked Out**
 Left hand on pommel/Right hand on cantle



Rider Name: **Di Fisher (8-³/₄st.)**

Peak Pressure: **15.2Psi**

Left hand on wither/Right hand on off-side behind flap