

# **A pilot study into the effects of various mounting techniques on the pressure of the horse's back**

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The aim of this study was to investigate the pressure on the horse's back when mounting from the ground and from a raised platform of heights 28 cm and 58 cm respectively by comparing the pressures seen under the saddle with the use of a Pliance System. Suggested limits for the horse's tolerance to pressure before injury occurs have previously been identified and efforts should be made to avoid causing pressure above prescribed limits in any aspect of human:horse inter-action. The most obvious likelihood of this occurring is under the saddle, and whilst there have been studies into the effects of pressure whilst riding (de Cocq et al., 2004; Fruewirth et al., 2004; Belock et al., 2011 and others) few could be found to identify the same in mounting (Geutjens et al., 2008). One rider (height 175cm) mounted the same horse (162cm 'cob type'), with a well-fitting saddle, three times for each of the 12 techniques (lower block and higher block = unsupported, self supported, counterbalanced, no foot in stirrups and ground a 'leg up', unsupported, self supported, counterbalanced) to obtain a mean value for each method. Mean overall pressure (KPa) under the saddle, mean peak pressure and maximum peak pressures were recorded. No significant difference between methods (ANOVA  $p > 0.05$ ) was observed in overall mean pressure supporting previous studies on saddle fit and rider influence. However, both maximum and mean peak pressures varied significantly between the techniques ( $p < 0.0001$ ). The mean pressure under saddle varied greatly between the mounting methods with 'mounting from the ground in an unsupported fashion' having the highest (4.43KPa) and the 'lower block self-supported method' having the least (1.97KPa). For peak pressure, the 'ground unsupported method' was again the highest (18.61KPa) with 'mounting from the higher block self-supporting' having the least (8.35KPa). These results suggested that mounting from the ground in any method used is not ideal. The method that caused least pressure on the horse's back was mounting by simply swinging the right leg across the horse to find the opposite stirrup or by a self-supporting method as he/she mounts from a height of 28 or 58 cm.

## **References:**

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