

To Wedge or not to Wedge!

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A wedge pad is a pad that is thicker at one end than the other such that it can be used to elevate one portion of the hoof, usually the heels. The wedge pad is inserted between the sole and the shoe. Note that some specialty shoes are made to have a wedge as part of the shoe itself.



Figure 1: Shoeing with a traditional wedge pad.

Wedge pads are often used for ailments such as navicular issues, low heels and even high heels issues. In other words, wedge pads are very commonly prescribed for different hoof problems. In reality is wedging a hoof truly beneficial? I feel that wedging a hoof can have some benefits when used only for the short term and after a thorough veterinary exam. However, the long term use of wedge pads can create significant problems to the health and 'natural' function of the hoof. Let us examine two different hoof

problems for which the use of wedge pads (or wedge shoes) is sometimes prescribed.

The high heeled hoof: A high heeled hoof is a hoof that naturally has a lot of vertical depth to it (high walls.) These types of hooves tend to grow heels faster than toe. They do have a high palmar angle - the palmar angle is the angle between the bottom of the pedal bone and the ground. Generally, high walled hooves tend to increase their palmar angles at the end of a trimming/shoeing cycle since the heels grow faster than the toe. This situation predisposes the pedal bone to have an increased load at the toe area. The pedal bones of high walled hooves often show signs of being remodeled in the toe area (Figure 2.)



Figure 2: A hoof that is too high on the heels for too long of a period of time may develop ‘remodeling’ at the tip of the pedal bone. In this image, the palmar angle is 14.7 degrees, which is quite high.

So why would you increase the load in this area by adding a wedge pad? If there are no serious injuries to the tendons or ligaments, I will always lower the heels on such horses, and never use a wedge pad. Lowering the heels helps maintain an adequate palmar angle.

The low heeled hoof: The low heeled hoof tends to grow toe faster than heels. These hooves seem to have crushed heels since most of the load is placed at the caudal (back) part of the hoof. The pedal bones of such hooves do not have high palmar angles. You will see wedge pads on these type of hooves even if there are no diagnosed problems. It seems obvious to many that if the heels are low (resulting in a low palmar angle) that adding a wedge pad to increase this angle would be reasonable. But I find that raising the heels artificially rarely helps improve this situation, or if it does, it is only for a couple shoeing cycles. In the longer term, my experience is that wedge pads create damage to the hoof capsule and soft tissues (Figure 3.) My method to help such hooves is to support the entire sole with packing and the use of glue to rebuild some wall length if necessary. I want to avoid putting all the weight only on the walls at the heels, and rather, continue to share the load between the heels, the frog and the sole.

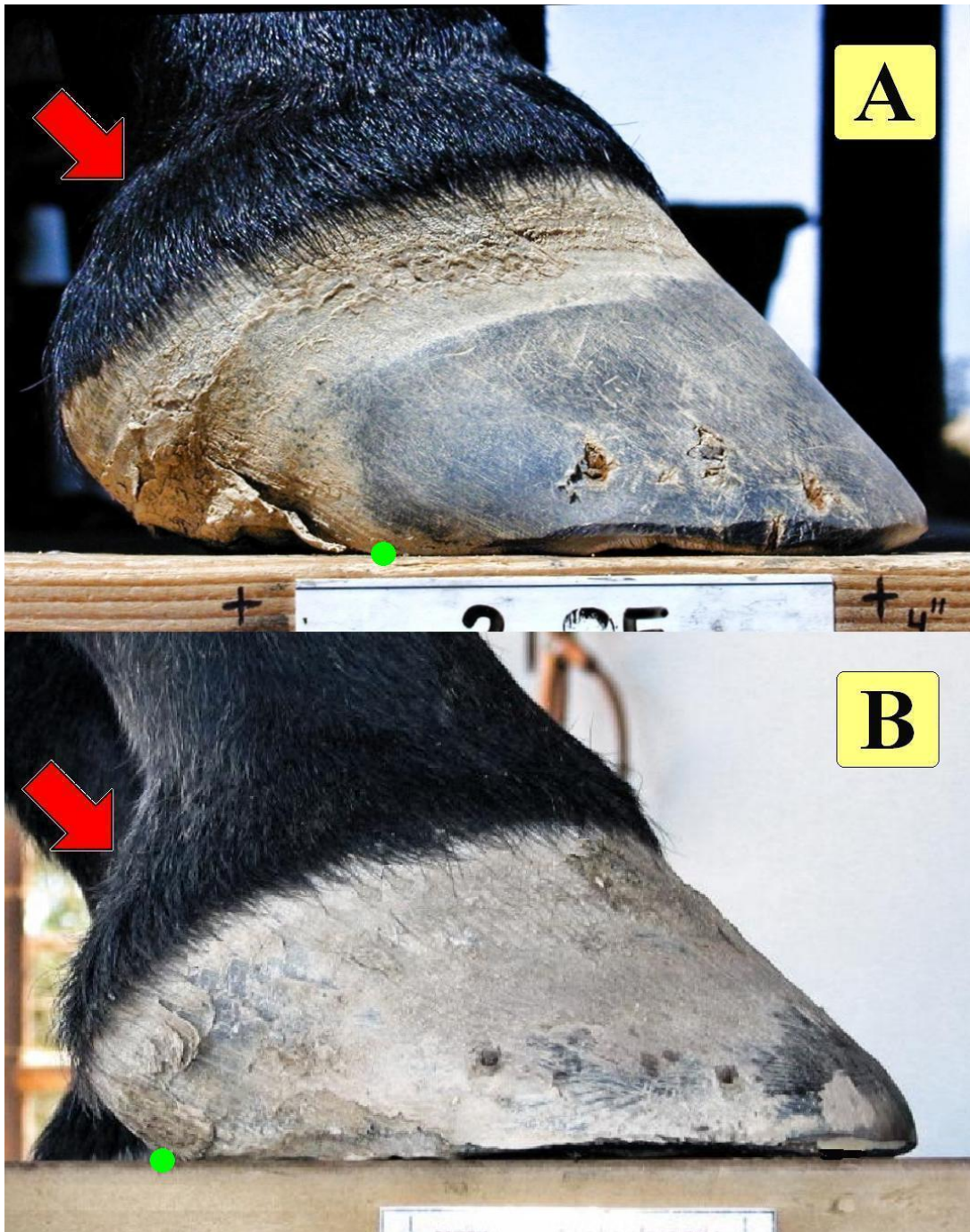


Figure 3: Image (A) is the hoof after many shoeing cycles in a traditional wedge pad. Image (B) is the same hoof about 4 months after discontinuing the use of the wedge pad. The red arrow points out changes in soft tissue, which appears puffy in image (A). Note the green dot in each image, which shows where the heel points contact the ground. The use of wedge pads has encouraged heels to become under-run (A).