

Measuring Your Horse's Hoof Structure and Growth: Collateral Groove Depth and Sole Concavity

By measuring your horse's collateral groove depth with the PHP, you can get an idea of the internal position and shape of the coffin bone/P3.
(The only conclusive way is through use of an x-ray).

Studies show that the consistent measurement of 7/16 inches (1.1 cm) is the thickness of sole between the bottom of the collateral groove to the hoof corium.

Research shows that adequate collateral groove depth from the bottom of groove to ground surface (where the flat edge would lay on the hoof surface) is 1/2 inch (1.3 cm) to 3/4 inch (1.9 cm) at the apex and 3/4 inch (1.9 cm) to 1 inch (2.5 cm) at the back.



Measurement of 1/2 inch (1.3 cm) taken of the collateral groove at APEX

Measurement of 7/8 inch (2.2 cm) taken at the back of the collateral groove.

Measure to see what thickness of sole the hoof has from the bottom of the collateral groove to the surface of the hoof.

To do this you would lay a flat edge across the bottom of a properly trimmed hoof and take your measurements.

You will want to measure the collateral groove depth at the apex of the frog and at the back part of the groove.



By measuring, you can determine if the hoof has good concavity that helps with the absorption of concussion. You can also determine if your horse has a thin or adequately thick sole that protects the internal structures.

Showing bowl shape concavity of solar surface.

For further education on the importance of collateral groove depth and solar concavity, please visit the websites listed on the links page.