Grip Don't Slip

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Does it really matter what kind of chalk you use on the bar? In this project, different types of chalk was tested to see what kind of chalk gives gymnasts a better grip on the bar. To test this, different kinds of chalk or no chalk were used to swing on the bar. Videos were taken of the swings using the three different types of chalk. Pausing the videos on the peek of the third swing, still pictures were printed to find the height of the swing. The height of the third swing was measured by drawing points on the hands, shoulders, hips, knees, and ankles, to find the line of best fit and drawing and measuring the angle with a vertical line. To analyze the effects more closely, the coefficient of friction between the grips and the bars was determined using a Vernier Labquest and force probe. According to the data collected, the gymnasts were able to swing higher using a type of chalk as compared to using only their bare hands. The liquid chalk worked the best and the solid came in second, and then the powder chalk. Using any type of chalk certainly aids the gymnast on the bars and the use of different types of chalk does indeed make a difference in the height one is able to swing on the bar.

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