

The Effect of Acidity on the Viscosity of Thickened Liquids

An Honors Thesis (HONR 499)

by

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Abstract

The research in this thesis aimed to help adult patients suffering from Dysphagia by establishing what relationships, if any, there were, between the pH value of a liquid and by how quickly or how much it thickened. One area of study where more research could be helpful was that of pH values (acidity) as it could help Speech Language Pathologists better recommend what liquids dysphagia patients thicken and consume. To determine possible relationships, the viscosities of thickened liquids with low pH values were compared against the viscosities of thickened liquids with high pH values. The viscosities of liquids with higher pH values from both less acidic liquids and liquids that had calcium carbonate added to them were compared against the viscosities of liquids with lower pH values. After comparisons were done, the viscosities of the thickened liquids were determined to increase, decrease, stay the same or yield inconsistent results as the pH values increased. These results were then generalized to determine if there were any relationships between acidity and the viscosity of thickened liquids and, if so, what those relationships were.

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