Name(s)

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Project Number

S0607

Project Title

Lipids and Latex: How Common Lipids Affect the Elasticity of Medical Grade Latex

Abstract

Objectives

The purpose of this experiment was to determine which common oil had the largest effect on the elasticity medical grade latex.

Methods

I tested which type of oil decreased the elasticity of latex the most by stretching latex treated with oil. Experiment was conducted with five different oils, latex sheets, and clamps and weights used to stretch the latex.

Results

Which oil degraded latex the most was determined by measuring and comparing the original length and post-stretch length of latex squares. The mean difference between the original and post-stretch lengths of latex treated with mineral oil was the largest.

Conclusions

This project tested the effects of common oils on medical grade latex, and found that mineral oil degraded the structural integrity of latex the most. These findings are applicable in many fields, most importantly, medical safety.

Summary Statement

I tested which common oil deteriorated medical grade latex the most.

Help Received

My chemistry teacher helped me research my topic by giving me access to privatized databases.