Marin Masters

Back Off Bacteria

The purpose of this investigation was to determine whether natural antibiotics were as effective when compared to Ciprofloxacin, a pharmaceutical antibiotic with a Black Box warning, when used to kill Escherichia Coli (zone of inhibition). I hypothesized that if the antibiotic (pharmaceutical, cranberry juice, oil of oregano, MCT oil) was varied, then cranberry juice, a natural antibiotic, would be the most effective compared to Ciprofloxacin, when killing Escherichia Coli (zone of inhibition). The experiment involved growing bacteria (E. coli) and administrating antibiotics to the bacteria (Ciprofloxacin, cranberries, oil of oregano, MCT oil) in a laboratory. After the bacteria had grown for a 24-hour period the zone of inhibition was measured in centimeters. The data collected did not support the original hypothesis. These findings led to the conclusion that natural cranberry juice did not result in any measurable zone of inhibition and was not effective in killing Escherichia Coli. Oil of oregano had a zone of inhibition 2.12 cm smaller when compared to the pharmaceutical antibiotic Ciprofloxacin, and a zone of inhibition 1.02 cm larger when compared to the control. None of the natural antibiotics were as effective as Ciprofloxacin when killing Escherichia Coli.