

## 17.6: Statistical Literacy

### Learning Objectives

- A Spice Inhibits Liver Cancer

An experiment was conducted to test whether the spice saffron can inhibit liver cancer. Two groups of rats were tested. Both groups were injected with chemicals known to increase the chance of liver cancer. The experimental group was fed saffron ( $n = 24$ ) whereas the control group was not ( $n = 8$ ). The experiment is described here.

Only 4 of the 24 subjects in the saffron group developed cancer as compared to 6 of the 8 subjects in the control group.

### Example 17.6.1: what do you think?

What method could be used to test whether this difference between the experimental and control groups is statistically significant? Use [Analysis Lab](#) to do the test.

#### **Solution**

The Chi Square test of contingency tables could be used. It yields a  $\chi^2$  ( $df = 1$ ) of 9.50 which has an associated  $p$  of 0.002.

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