

## 11.12: Statistical Literacy

### Learning Objectives

- Effectiveness of Surgery for Weight Loss

Research on the effectiveness of surgery for weight loss reported here found that "The surgery was associated with significantly greater weight loss [than the control group who dieted] through 2 years (61.3 versus 11.2 pounds,  $P < 0.001$ )."

### Example 11.12.1: what do you think

What test could have been used and how would it have been computed?

#### Solution

For each subject a difference score between their initial weight and final weight could be computed. A t test of whether the mean difference score differs significantly from 0 could then be computed. The mean difference score will equal the difference between the mean weight losses of the two groups ( $61.3 - 11.2 = 50.1$ ).

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