Difference between a T-test and Chi Square

**T-test:**
Allows you to answer the question, are these two groups statistically different from each other?

Null Hypothesis: There is no statistical difference between the means of the two groups.

When you reject the null hypothesis with a t-test, you are saying that the means are statistically different. **The difference is meaningful.**

**Chi Square:**
Allows you to test whether there is a relationship between two variables. BUT, it does not tell you the direction or the size of the relationship.

Null Hypothesis: There is no relationship between the two variables.

When you reject the null hypothesis with a Chi-Square, you are saying that there is a relationship between the two variables.