

# STATISTICS--WHAT THEY REALLY MEAN TO YOU!!!

*From Conversations! The International Newsletter For Those Fighting Ovarian Cancer*

Some of the typical pieces of information usually found in health related newsletters are statistics. "Statistics" is defined as the "systematic collection, organization, analysis, and interpretation of numerical data pertinent to any subject."

Statistics can be encouraging or frightening depending on which number is applied to you or your circumstances and how the number is expressed. For those of you who have seen statistics and find them discouraging, let's talk about why those numbers may be misleading:

1. Statistics represent an average number, and averages mean there are numbers on both sides of the middle. An average of 25 may represent a low of 2 and a high of 48. Suppose you put one foot in boiling water and freeze the other in a block of ice. The "average" would probably be a normal 98.6 degrees, but you would be very uncomfortable. So much for statistical averages.
2. Statistics studies are usually performed over an extended time period. A typical study dealing with survival or remission rates (or length of time) usually requires 1-2 years, or longer, to find and enroll the study participants. The study itself usually lasts about 5 years or longer. Add another 1-2 years to write the research paper and get it into print. This means that survival or remission statistics are about 5-10 years old or older.
3. Statistics are based on groups which may be entirely different from you--different in age, cell type, stage, nutritional status, initial surgical debulking, previous treatments, or even prior health states, which may influence how treatments work, etc. Remember that any set of statistics applies to a specific list of criteria. Clinical trials have a rigid list of things which determine who can participate in the study. The results of these studies, presented as statistics, can apply *only* to those who exactly fit the criteria--identical cell type, identical stage, identical age group, identical previous and current treatments, and on and on. No matter how similar your situation is, if your personal circumstances are only slightly different, the statistics are not totally applicable to you and your situation.
4. Statistics only really apply to the mythical human being who reacts like everybody else. Even if you appear to fit the criteria of a specific study, each human body reacts in a different way to the same situation. For example, if we all eat the exact same amount of an identical food, there will be many different reactions. One might be severely allergic to the food and react with shock; another have hives; another with itching; another with sneezing; another with a runny nose; and most of the others will have no reaction at all.
5. Statistical numbers can be manipulated to appear good or bad, to emphasize one side over the other. For example, it is 100% more likely to rain tomorrow than today (same as saying twice as much). That sounds pretty certain, doesn't it? But, if the chance of rain today is 2% and the chance of rain tomorrow is 4%, you would plan a picnic anyway!
6. Statistical group size makes big differences in the results. For example, the newspaper headlines read "New Cure Found--100% in Study Cured!" In the research paper, the study group consisted of 10 people. This isn't nearly as convincing as 100% of 5000.
7. Remember, you are you, an individual, and you are NOT an average. Even though some study states only 1% responded to a specific treatment, you may be the 1% to respond positively.

8. Percentages are statements of *quantity*, but you, as a person, are concerned with the *quality* of your individual life.

**You are You--YOU are GREATER than any statistic!**

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