



# Introduction to Biostats

This class explains what biostatistics is and the parameters associated with it. In this class, you will see how basic knowledge of biostatistics can impact you as a practicing chiropractor because it will enable you to understand how data relates to each other.

To understand chiropractic research, it is crucial to know the basics of statistics. Understanding how data is collected, plotted, or graphed and analysed will enable you to assess the quality of published research. You need to visualize and understand your data. It can also help you understand published research and will enable you to grasp what basic types of graphs represent.

## STATISTICS LEVEL 1 - CLASS 1



## LESSON CONTENT

Every lesson has a practice quiz. At the end of the lessons there is a final quiz and if you pass the final quiz, you will receive a certificate of completion.

### 1. What is statistics, biostatistics, and common terms used?

- This lesson covers the definitions of statistics, biostatistics, and data.
- What different types of data can be.
- The difference between primary and secondary data.

### 2. Variables in statistics and their types

- This lesson covers the definition of the various types of variables.
- We will look at both quantitative vs qualitative data.
- Univariate, bivariate, and multivariable data will be discussed.

### 3. Data Exploration (How we can look at the data and what it tells us?)

- In this lesson, we will look at the various features of the plot.
- We will discuss the spread of data that can be seen in plots.
- We will also cover symmetry of data in this lesson.

### 4. Plots for numerical data

- This lesson will present you with the different types of plots that can be used for quantitative or numerical data.
- You will learn about dot plots, histograms, box plots, bar plots, and scatter plots.
- Each type of plot is best for certain types of data.

### 5. Plots for categorical data and mixed data

- This lesson will present you with the different types of plots that can be used for qualitative or categorical data.
- You will learn about bar charts and pie charts and two-way table of counts.
- Each type of plot is best for certain types of data.

### 6. Introduction to Statistical Tests

- In this lesson, you will be introduced to the statistical tree, which shows you which statistical test and plot is best based on the type of data you have and the number of variables you have.
- You will also learn about why we do statistical tests at all.

### SUBJECT TAGS

bar plot, box plot, scatter plot, pie chart, histogram, dot plot, quantitative, qualitative, primary data, secondary data, skewness, shape, symmetry, modality, unimodal, bimodal, trimodal, outliers

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