# Sports

Under our *Physical Effects of Stress* site information on the relationship between stress levels and the number of hours of participation can bre found. This link discusses how participating in a sport effects the average GPA of a teenager. So, if you need any clarity or more information please refer to this link.

Below is a box-plot of those teens who participate in a sport, and those who don't. Our data shows that those students who are actively involved in sports have a significantly higher GPA (3.25 vs. 3.00) than those who aren't involved in a sport. These results can be easily explained using data and research gathered thru other tests. Since the students are physically active, they have an outlet for their stress. These students, therefore, will have a lower stress level than their peers who aren't in a sport. If their stress level is lower they will be able to be more focused in school, and thus excel past their peers. So, their GPA's should be substantially higher than other teenagers that don't participate in a sport, which is exactly what the data shows.

Two Sample T-Test and Confidence Interval  
  
  
Two sample T for sport-GPA vs no sport-GPA  
 N Mean StDev SE Mean  
sport-GP 146 3.251 0.592 0.049  
no sport 125 3.002 0.625 0.056  
  
95% CI for mu sport-GP - mu no sport: ( 0.103, 0.396)  
T-Test mu sport-GP = mu no sport (vs not =): T= 3.35 P=0.0009 DF= 257