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| Our final point of study is the difference between types of exercise. Forms of exercise vary drastically from yoga, to walking, to jogging, to simple cardio vascular activity, to competitive sports. Is there a difference between competitive and non competitive exercisers? Does a background in competitive sports help an individual learn to cope with daily stress better than an individual that simply exercises but does not play a competitive sport? Certainly one faces immense amounts of physical stress in a competitive sport while simultaneously working out the day's stress through athletic activity. The temporary stress in competitive sports is often more of the primal kind, where the vestigal fight or flight reaction is actually beneficial. When stress is introduced to an individual, the fight or flight response is triggered. "When you are under stress, your brain sends messages out to the rest of your body through a part of your autonomic nervous system called the sympathetic nervous system, which causes the release of hormones called epinephrine and norepinephrine (also known as adrenaline and noradrenaline). As a result, your heart rate and breathing rate increase, your blood pressure rises, your muscles tense and your metabolism increases. This response is called the fight or flight response because it prepares you to fight back or run away in a threatening situation." (Mind Tools, 1995) Unfortunately, running away from or beating the tar out of a stressor is usually not a viable solution in today's world. Competitive sports however, often give a release for this response, allowing the chemicals of epinephrine and norepinephrine to serve their purpose and then leave the body. Emotional stress alone gives you only the epinephrine and does not give release to the chemicals. After prolonged exposure, this process becomes harmful if the individual has no outlet for the response.    For example, many people are caused stress by airplanes, but the fight or flight response (no pun intended) is useless because the individual is trapped on an airplane with no outlet. The same hormones are released and your body undergoes the same reaction to two very different kinds of stress, physical and emotional. Physical stress usually provides an outlet (lifting up cars to save an injure person, competitive sports, etc) whereas emotional stress leaves the individual in the same state of alert with nothing to do. If emotional stress finds no outlet, it will lead to certain kinds of physical stress. If exposed to emotional stress over a prolonged period of time, the chemicals accumulate in the blood stream and cause several harmful effects. For example, when norepinephrine and epinephrine are present in large amounts, the immune system is inhibited and the T cells cannot function appropriately, leading to a stressed individual getting sicker often and for longer periods of time. This perpetuates the cycle of stress in an individual, where (after prolonged) emotional stresses leads to physical stress and often back to emotional again.  In addition, the life and organizational patterns learned from participating in a competitive sport, we believe, will help the participant deal with everyday stressors better than the average person. While it would seem that playing a competitive sport would increase the amount of stress in an athlete's life, it also teaches by necessity the ways to deal with that stress. We believe, on average, athletes usually have better nutritional habits than non-athletes. They are forced to use better time management skills or face problems in the sport or school. They smoke, drink, and engage in illegal drug use less than the average individual. We believe that the secondary benefits garnered from an athletic lifestyle will help an athlete deal with stress better if only because they are not engaging in stressful activities.  ([Intro1](http://docs.google.com/introduction.html))([Intro2](http://docs.google.com/intro2.html))([Intro3](http://docs.google.com/intro3.html))([Intro4](http://docs.google.com/intro4.html)) [(intro5)](http://docs.google.com/intro5.html)  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2002 Projects](http://docs.google.com/AP2002/index.html)][[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |