|  |  |
| --- | --- |
|  | Caffeine is a drug that may possibly have dangerous side effects. People continue to use it on more than just a daily basis. Although many uses of caffeine have been found that benefit people, our research regarding the drug was inconclusive.  Most of our data, as we mentioned earlier, was congruous within each test group. However, the data didn't produce the results we were hoping for. The group that normally had no caffeine and was given high amounts of it had the results we were hoping for. They all felt their ability to read was better, and all but one felt being more awake because of the caffeine helped their concentration. This showed us that the tolerance level of the different subjects was different, which could have had something to do with the situations we did not take into account. For example, the rate of metabolism, body weight, and rate of absorption are possible factors that contributed to the test subject who couldn't concentrate because she was too listless. The side effects experienced by the different subjects also had to do with their tolerance to caffeine.  The test group that were controls didn't produce any unusual data at all. They said that caffeine doesn't change their ability to concentrate. One subject said that if she had caffeine in the morning it was easier to perform in school than when she didn't, but it didn't necessarily help her concentrate better. As far as the side effects of having too much caffeine, it is unknown why in some people caffeine helps headaches and in others it causes headaches. It is thought that it mostly has to do with the amount of caffeine being taken. Mostly, it depends on the person and how fast they metabolize or absorb the caffeine. That is the current theory.  The third test group, who normally had caffeine three times a day and reduced it to one helps to support the theories about caffeine in moderation. Researchers consider 250mg a day a moderate amount. If the subjects in this test group normally had caffeine three times a day, they had a little more than that amount, but it is still considered a moderate amount. None of these test subjects showed signs that their normal caffeine level or their reduced level had any affect on their concentration, or gave them any type of unwanted side effect. Although no clear conclusion can be derived from this data, it can be derived that if someone were to slowly wean themselves off caffeine the possible effects of withdrawal would be small or non-existent. This groups results weren't surprising, but they were a little different than what was expected.  The last test group's results were surprising. This is the group that normally has a lot of caffeine and had none during the study. Only one of the test subjects found it more difficult to concentrate with no caffeine, one found it more difficult to read, and the other two noticed no difference at all. Two subjects did have severe signs of withdrawal. This helps support the evidence again that caffeinism exists and causes serious withdrawals once the body has become dependent on caffeine.  Overall, the results were about what we had expected due to the inaccuracies of our data collection, but they were far from what we hoped to get. Although they didn't refute our hypothesis, the results didn't completely support it either. The process made us understand why it is so difficult to research caffeine; there are simply too many other factors to completely rule that caffeine is the substance behind all the effects it causes. It was an interesting topic to research, but even the theories we learn now will probably have changed by the time we could go research it again. |

*This Web Site is Best viewed with 256 or more colors.*

*For More Information about Creekwatch, please contact Eric Thiel at* [*ethiel@pleasanton.k12.ca.us*](mailto:ethiel@pleasanton.k12.ca.us)