

The Effects of Caffeine on the Behavior and Health of Adult Zebrafish

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## Abstract

Caffeine is a chemical that millions of people worldwide consume on a daily basis. It has been shown to be addictive and potentially harmful to the human body. Animal testing has been performed for caffeine toxicity and certain doses have been found to have teratogenic effects. The goal of this study was to explore the effects of caffeine on the behavior and health of adult zebrafish, not embryonic ones. Nine adult fish grouped three fish per tank, were exposed to two different concentrations of pure caffeine over five days. One was a continuous dose of 50mg daily and the other was one large dose of 200 mg. The fish exposed to the large dose showed increased noise sensitivity but otherwise no major behavioral change. All of the fish in this tank died after four days. The fish exposed to the continuous dose showed no major behavioral change, but two of them died after five days. In conclusion, caffeine has no significant effect on the behavior of adult zebra fish, but does pose a health threat when the fish are exposed to a large dose.