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A Wormy Situation: The Effect Of Diet Pills On Caenorhabditis elegans

The purpose of this project was to see the effect of diet pills on the fat accumulation, number of offspring, and length in *Caenorhabditis elegans*. The procedure was to place *C. elegans* on agar plates and allow them to go through their 3 day life cycle. While going through this process, the diet pill solutions were introduced onto the plates. The diet pills used were Alli, Dexatrim, and Mega-T, the control was distilled water. At the end of the life cycle, the numbers of offspring were recorded and averaged for all three trials. The length was measured in the same manner. The fat accumulation was determined by using fat stain techniques and counting the number of fat globules. The data shows that when compared to the control, the Dexatrim showed a decrease in the number of offspring after exposure. For example, in Trial 3 the control had an average of 9.4 large worms and 71 for small while Dexatrim had 7 for large and 47.4 for small. Alli and Mega-T were very similar to the control group. For length, all groups were very similar to the control not showing an increase or decrease. For fat accumulation, there was an average of 7 fat globules in the control, 9.7 for Dexatrim, 6.3 for Mega-T, and 5.3 for Alli. Based on this data, the researcher concludes that Alli was best for reducing fat, followed by Mega-T. Dexatrim caused a weight gain. With Dexatrim there was large decrease in offspring maybe showing a health concern.