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Mudworms On Dex: The Effect Of Dexamethasone On The Healing Process Of Lumbriculus variegatus

The purpose of this project was to find the effect of dexamethasone on the healing process of California black worms (*Lumbriculus variegatus*). This helps mankind because if dexamethasone helps with the healing process, then people could use dexamethasone to heal wounds. The procedure of this project was to prepare the dexamethasone solutions such as the 0.1 cc, 0.01 cc, and the 0.001 cc solution. The control will just be spring water. To obtain worm segments, the researcher carefully cut two worms into 1/3 segments which will be one group. Each segment was placed into its own microcentrifuge tube with the appropriate solution in it. The worm segments were measured by placing each segment on a damp filter paper in a Petri dish. The segments were allowed to regenerate. This was done another time for a second trial. The data shows that the .01 cc solution had the best regeneration rate. For the head in Trial 1 it was an increase of 25%, the body was 27.3% and the tail was 18.2%. When compared to the control, in Trial 1, the head had an increase of 13.3%, the body had a decrease of -15.4%, and the tail had a decrease of -30.8%. In Trial 2 the data was similar to Trial 1 with the .01 cc having the largest increase. After this research, it appears the .01 cc solution was successful in regenerating/healing the worms. The .1 may have been too much and the .001 may not have been enough.