The Effects of Perchlorate on *D. magna* Swimming Behavior Throughout Development

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**Background**

**Significance:**
Water fleas are a model organism in ecotoxicology since they can undergo phenotypic and behavioral changes from a change in their environment, have a fully sequenced genome and short reproduction times. Perchlorate is a current contaminant of interest due to it not currently being regulated at the federal level in drinking water.

**Diagram of Water Fleas:**

**Big Question:**
What are the effects of perchlorate on *D. magna* swimming behavior throughout development?

**Hypothesis:**
*D. magna* will experience a decrease in their swimming parameters after exposure to perchlorate.

**Methods**

**Swimming Parameters:**

- **Swimming Time**
- **Swimming Speed**
- **Hopping Frequency**

**Experimental Timeline:**

- **Obtain Reagents**
- ** Swamp Animal Acclimation**
- **Acclimation Period**
- **Data Collection**
- **Final Data Collection**

**Results**

**Anticipated Results:**

**Conclusion:**
Anticipate hypothesis will occur because from past research perchlorate increases likelihood of organisms developing obesity thus decreasing swimming parameters. Can also witness other effects during embryonic development and growth.

**References:**
