

# Changes in Adult Behavior Following Prenatal Fentanyl Exposure

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### Introduction

- Opioid abuse and addiction are among the most prominent public health crises in the United States, with a significant increase in the use of more potent, synthetic opioids like fentanyl.
- However, the long-term effects of fentanyl exposure during pregnancy have not been fully explored.
- This study investigates the biological and physiological implications that prenatal fentanyl exposure has on the development of mice.

### Methods



### Results

## Graph

Figure 1. Male fentanyl exposed mice exhibit greater anxietylike behavior

Figure 2. Female fentanyl exposed mice produced a smaller litter size than female control mice.

### Graph

Graph

Figure 3. Fentanyl treated mice scored lower in nesting tendencies.

## Graph

Figure 4. Fentanyl treated mice exhibited more submissive behavior in comparison to the control mice.

### **Discussion/Conclusion**

- Findings showed a significant difference between the litter sizes between control and fentanyl treatment groups, as well as a sex-specific difference in body weight following fentanyl treatment.
- Fentanyl-exposed mice exhibited greater anxiety-like behavior and showed a deficit in social dominance.
- These data indicate that in utero fentanyl exposure has long-term effects on behavior.

#### References

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