

Fluoxetine

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About Fluoxetine:

- It is a common **antidepressant medication**.
- It inhibits the uptake of serotonin by nerve cells (neurons) and helps people with depression, panic, anxiety, or obsessive-compulsive symptoms.
- **Effects of fluoxetine**
 - At low concentrations, fluoxetine **reduces activity levels** and increased refuge-seeking behaviour in male guppy fish.
 - It also altered their **body condition, increased the size** of their reproductive organs, and reduced sperm velocity. These effects could have significant implications for mating success and reproductive fitness in polluted waters.
 - Fluoxetine exposure **reduced behavioural plasticity** in the fish, suppressing within-individual variation in both activity and refuge.

- Individual fishes are behaving more rigidly, potentially limiting their ability to respond flexibly to their environment.
- High fluoxetine concentrations increased variation in body condition between individuals, while low concentrations increased variation in sperm numbers.

Key facts about Guppy Fish

- These are a small, pretty species of fish that are extremely popular for home aquariums.
 - These are a species of small **tropical freshwater fish**.
 - These are **sexually dimorphic**, meaning there are distinct differences between males and females of the species.
 - Male guppies are brightly colored in shades of black, green, orange, red, white, and yellow and have patterns like speckles, spots, and stripes.
 - **Distribution:** Guppies are native to certain countries and islands in South America: Antigua and Barbuda, Barbados, Brazil, Guyana, Suriname, Trinidad and Tobago, and Venezuela.
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Q1: What is a neuron?

These are also known as a nerve cell, is a specialized cell in the nervous system that is responsible for transmitting information through electrical and chemical signals. Neurons are the basic building blocks of the nervous system and play a crucial role in processing and transmitting information within the body.

Source: [Pharmaceutical pollutants altering fish behaviour, reproductive patterns and life history: Study](#)

Source: <https://vajiramandravi.com/current-affairs/fluoxetine/>

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