

## Dopamine and Serotonin Levels in Blood Samples of Jordanian Children Who Stutter

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**Abstract :** This study examines the levels of dopamine and serotonin in blood samples of children who stutter compared with normal fluent speakers. Blood specimens from 50 children who stutter (6 females, 44 males) and 50 normal children matched age and gender were collected for the purpose of the current study. The concentrations of dopamine and serotonin were measured using the 1100 series high-performance liquid chromatography coupled with ultraviolet detector instrument (HPLC-UV). It was revealed that dopamine level in the blood samples of stuttering group and fluent group was not significant ( $P = 0.769$ ), whereas the level of serotonin was significantly higher in the blood samples of stuttering group than the blood samples of fluent normal group ( $P = 0.015$ ). It is concluded that serotonin blockers could be used in future studies to evaluate its role as a medication for the treatment of stuttering.

**Keywords :** dopamine, serotonin, stuttering, fluent speakers

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