

"Long before it's in the papers"

[RETURN TO THE WORLD SCIENCE HOME PAGE](#)

Second “Mozart effect”? Premature babies may grow faster

Dec. 14, 2009
Special to World Science

Hearing Mozart’s music might make premature babies grow faster by reducing their rate of energy expenditure, a study has found.

Researchers are dubbing the phenomenon a second “Mozart Effect,” in reference to previous findings that classical music may lead to temporary performance improvements on certain mental tasks.

Past research has also found that music reduces stress, lowers the heart rate and even improves the rate of weight gain in preterm infants, according to Ronit Lubetzky and colleagues at Tel Aviv University in Israel, who conducted the new study.

The researchers decided to test whether such a weight gain improvement could be caused by increased efficiency of metabolism. They investigated the hypothesis in 20 normal preterm infants, half of whom were randomly assigned to be exposed to Mozart music for half an hour on two consecutive days.

The scientists measured babies’ energy expenditure using indirect calorimetry, which tallies the rate of calorie burning in their bodies based on their oxygen intake.

During the first 10 minutes of music, babies’ energy expenditure was similar to those who were not exposed to music, but during the second and third 10-minute periods this changed, Lubetzky and colleagues found. During that time, the music-exposed infants were measured to have a significantly lower resting energy expenditure.

“This effect of music on REE [resting energy expenditure] might explain, in part, the improved weight gain that results from this ‘Mozart effect,’” the team wrote. However, they noted that the findings are tentative because “our study is a pilot study in nature, limited to a very short period of 30 minutes, and reflects only REE, a component of but not all of total energy expenditure.”

The findings are published in the Dec. 7 online issue of the research journal *Pediatrics*.