

QUALITIES OF LIFE

Airports may delay kids' learning
Intermittent noise is too distracting

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ATLANTA -- If you live near a major airport, your children might have a harder time learning to read and memorizing their spelling lessons than if you resided in a quieter area, a new study has found.

In the largest study of its kind, Stephen Stansfeld of the University of London's Queen Mary's School of Medicine and Dentistry and colleagues found that near-constant noise not only increased stress in youngsters but also made learning more difficult and impaired their memory.

"This effect is significant," Stansfeld said. "In practical terms, aircraft noise might have only a small effect on the development of reading, but the effect of long-term exposure remains unknown."

The study suggests that schools shouldn't be built close to airports and urges officials who decide such things to give "a wider consideration of the effect of environmental stressors on children's cognitive development."

The scientists studied more than 2,800 children, ages 9 and 10, from 89 primary schools located near three major airports, one in the Netherlands, the others in Spain and England.

They found that the reading age in children exposed to high levels of aircraft noise was delayed as long as two months at the London school and as long as one month in the Netherlands, for a 5-decibel change in noise exposure.

In contrast, road traffic did not have an effect on reading but was unexpectedly found to improve recall memory, Stansfeld said.

So why did they find in all three countries that aircraft noise affected kids more than the constant din of speeding cars and trucks?

"One explanation is that the transient nature of aircraft flyovers, which have high short-term levels, may disrupt the child's concentration and distract them from learning tasks, while the more constant nature of road traffic noise may allow children to habituate and not be distracted," said Dr. Charlotte Clark of the Center for

Psychiatry at the University of London, one of Stansfeld's colleagues.

And it's possible a certain amount of road traffic noise could improve memory by causing "moderate levels of arousal, which can improve task performance for simple tasks," she said.

The scientists, she said, feel it's important to keep schools in neighborhoods.

Also, "we feel it would be beneficial to insulate schools, including roofs and walls. It may also be beneficial to create 'quiet areas' within schools."

Peter Rabinowitz of the Yale University School of Medicine said this is not the first time schools near airports have come under study.

In one, 326 German schoolchildren were followed after the old Munich airport was replaced by a new international facility.

"Children attending schools near the airport improved their reading scores and cognitive memory performance as the airport shut down--while children going to school near the new airport experienced a decrease in testing scores," he said in an accompanying article to the study, just published in the peer-reviewed scientific journal *The Lancet*.