

Article #5

Blood Hints at Autism's Source

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Biochemistry

Researchers have identified a biochemical peculiarity in the blood of autistic children.

"The incidence of autism has gone up dramatically in the last 15 years," notes S. Jill James, director of biochemical genetics at the Arkansas Children's Hospital in Little Rock. "Because genes don't change that fast, this points to something in the environment as a trigger," she says.

James found an unusual biochemical fingerprint in the blood of 100% of 75 autistic kids, while none of 75 normal kids had the biochemical marker.

"The autistic youngsters had unusually low concentrations of antioxidant glutathione in their cells."

"This pattern is consistent with an inability to detoxify poisons, especially heavy metals, such as mercury or lead," James says. "That's because the antioxidant normally binds to heavy metals, and the body then targets the molecular complex for elimination."

James suspects that autism develops under combined effects of genetic mutations that deplete glutathione and exposure of a child to heavy metals or other poisons. "One of the most controversial theories about autism is that vaccines preserved with mercury-containing chemical thimerosal can cause the condition."

"Dietary treatments could boost glutathione in children carrying the genes that reduce the antioxidant," says James.