



# News Release

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH RELEASES PRELIMINARY RESEARCH INTO AUTISM SPECTRUM DISORDERS AMONG CHILDREN OF MOTHERS LIVING NEAR AGRICULTURAL PESTICIDE APPLICATIONS**

SACRAMENTO – The California Department of Public Health (CDPH) today released a study that suggests a possible connection between autism spectrum disorders (ASD) and maternal exposure to pesticides.

The study found that among 29 mothers who appear to have lived near agricultural fields where the highest level of organochlorine pesticides were applied during their first trimester of pregnancy, eight children had ASD. This rate is six times higher than the control group.

“This study is initial research into possible environmental factors in California that may contribute to autism,” said CDPH Director Dr. Mark Horton. “It’s important to understand that these preliminary findings do not establish a causal relationship between exposure to these pesticides and autism.”

The study covered 19 counties in the San Joaquin and Sacramento River valleys. It identified 465 children with ASD born during 1996 to 1998 using California Department of Developmental Services electronic files and matched them to 6,975 live born, normal birthweight, term infants as controls. The study examined 19 individual pesticides and 10 pesticide groups. Nearly all of these pesticide groups had no discernable association with ASD risk.

The exception was a group of pesticides known as organochlorines.

The study suggests that additional research may be warranted to determine if children whose mothers lived near applications of organochlorine pesticides edosulfan and dicofol during the first trimester of pregnancy may be at greater risk for developing ASD. Limitations of the study included sample size and uncertainty of exposure. The study utilized the community-based participatory research model, which allows for community participation in the research process.

### **About ASD**

ASD are disorders of varying severity characterized by impairments in social relationships, impairments in language and communication and unusual behaviors. ASD affect approximately one in 150 children.

### **About the Study**

The study, *Maternal Residence Near Agricultural Pesticide Applications and Autism Spectrum Disorders Among Children in the California Central Valley*, suggests further research may be needed into exposure to pesticides and ASD. It was conducted by researchers from CDPH and the Public Health Institute in Oakland, California and was funded by the federal Centers for Disease Control and Prevention. The research was made public on the Web site of *Environmental Health Perspectives*, a peer reviewed scientific journal that is sponsored by the National Institute for Environmental Health Sciences, and may be accessed at <http://www.ehponline.org/docs/2007/10168/abstract.html>