

Addressing New Challenges in Children's Environmental Health

In response to rapidly emerging areas of research on environmental exposures, NIEHS is conducting a variety of innovative research programs designed to address important issues in children's health.

Research Strategies for Disease Prevention

■ Centers for Children's Environmental Health and Disease Prevention Research

NIEHS has partnered with the U.S. Environmental Protection Agency to support research centers devoted exclusively to children's environmental health and disease prevention. These centers utilize the expertise and resources of top universities and medical centers to focus on the important role that environmental toxicants play in the development of many childhood illnesses.



■ National Children's Study

A collaborative partnership between NIEHS, the Eunice Kennedy Shriver National Institute of Child Health and Human Development, and other federal agencies, the study will allow researchers to follow more than 100,000 children from before birth until age 21, to determine how genetic and environmental factors affect children during different phases of their lives. The primary goal of the study is to improve the health of the nation's children while learning more about the role of various factors in health and disease.

Studies on the Growing Brain

■ Childhood Autism Risks from Genetics and the Environment (CHARGE)

Conducted at the University of California, Davis, the CHARGE Study will examine a wide range of environmental exposures and their effects on early development in three groups of children: those with autism, children with developmental delay who do not have autism, and children from the general population.



■ Markers of Autism Risk in Babies: Learning Early Signs (MARBLES)

This University of California, Davis study is a long-term study for pregnant women who have at least one biological child with autism. The researchers will investigate prenatal and postnatal biological and environmental risk factors that may contribute to the development of autism.

■ Early Autism Risk Longitudinal Investigation (EARLI)

Researchers, from four locations across the country, will follow 1,200 mothers of children with autism at the start of another pregnancy and document the newborn child's development through 36 months of age, to examine whether environmental factors play a role in developing autism.

■ Environmental Epidemiology of Autism Research Network (EEARN)

Sponsored by Autism Speaks and NIEHS, this network brings together scientists from over 20 epidemiologic studies to improve communication between researchers in the field, identify opportunities for collaborative projects, and develop new research tools for existing and future studies.



Studies on Air Pollution and Respiratory Disease

■ Mexico Childhood Asthma Study

This study has enrolled approximately 600 asthmatic children and their parents for an investigation of genes that may play a role in the children's response to ozone, a primary component of urban smog.

■ Head-off Environmental Asthma in Louisiana (HEAL) Project

This is a collaborative project, conducted by the Tulane University Health Sciences Center and the New Orleans Department of Health, whose purpose is to learn about the effects of mold and other indoor allergens on asthmatic children in post-Katrina New Orleans.

■ Inner-city Asthma Study (ICAS)

Sponsored jointly by NIEHS and the National Institute of Allergy and Infectious Diseases, this study was designed to evaluate the effectiveness of two types of interventions for reducing asthma symptoms among inner-city children with moderate to severe asthma.



Studies on Reproduction

■ Study of Estrogen Activity and Development (SEAD) Soy Study

These cross-sectional pilot studies are designed to help researchers understand whether the ingredients in soy infant formula have long-term effects on the health of the developing child.

■ Norwegian Mother and Child Cohort Study (MoBa)

NIEHS investigators, in collaboration with the Norwegian National Public Health Institute, have collected a variety of exposure and other health data from 110,000 pregnant Norwegian women, in order to assess the role of the environment in the long-term health of these women and their children.

■ Center for the Health Assessment of Mothers and Children of Salinas (CHAMACOS)

NIEHS-funded researchers at the University of California, Berkeley are conducting a long-term study of predominantly Mexican and Mexican-American farmworker families living in the Salinas Valley, California. The investigators will study the influence of prenatal and early childhood exposures to agricultural fungicides and pesticides on the health and development of their children.



Studies on Breast Cancer

■ Breast Cancer and the Environment Research Program (BCERP)

Funded jointly by NIEHS and the National Cancer Institute, this program is investigating mammary gland development in laboratory animals and young girls, in order to identify critical periods of vulnerability to environmental agents that may influence breast cancer development in adulthood.

