

lenses, their health status, health care needs and use, and demographic characteristics were compared with all CSHCN and CSHCN with corrected vision. Significant predictors of vision status were identified.

METHODS: Cross-sectional parent-reported weighted data from a large Random-Digit-Dial household survey, the 2005–2006 National Survey of Children with Special Health Care Needs were used. Sponsored by the Health Resources and Services Administration Maternal and Child Health Bureau, it was conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics. The data file contained observations on 40,723 CSHCN, of whom 1,356 had problems seeing even with glasses or contacts. Logistic regression was used to identify significant predictors of vision status.

RESULTS: Over 2.8 million CSHCN had problems seeing without glasses or contacts. Of these, 88% wore glasses or contacts, 14.6% of whom (or 364,811 CSHCN) still had problems seeing.

CONCLUSION: About 3.3% of CSHCN had problems seeing even with glasses or contacts, and may have additional obstacles in usual activities.

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HEPATITIS B VACCINATION OF MALE NEONATES AND AUTISM

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PURPOSE: Universal newborn immunization with hepatitis B vaccine was recommended in 1991; however, safety findings are mixed. The Vaccine Safety Datalink Workgroup reported no association between hepatitis B vaccination at birth and febrile episodes or neurological adverse events. Other studies found positive associations between hepatitis B vaccination and ear infection, pharyngitis, and chronic arthritis; as well as receipt of early intervention/special education services (EIS); in probability samples of U.S. children. Children with autistic spectrum disorder (ASD) comprise a growing caseload for EIS. We evaluated the association between hepatitis B vaccination of male neonates and parental report of ASD.

METHODS: This cross-sectional study used U.S. probability samples obtained from National Health Interview Survey 1997–2002 datasets. Logistic regression modeling was used to estimate the effect of neonatal hepatitis B vaccination on ASD risk among boys age 3–17 years with shot records, adjusted for race, maternal education, and two-parent household.

RESULTS: Boys who received the hepatitis B vaccine during the first month of life had 2.94 greater odds for ASD ($n = 31$ of 7,486; OR = 2.94; $p = 0.03$; 95% CI = 1.10, 7.90) compared to later- or unvaccinated boys. Non-Hispanic white boys were 61% less likely to have ASD (OR = 0.39; $p = 0.04$; 95% CI = 0.16, 0.94) relative to non-white boys.

CONCLUSION: Findings suggest that U.S. male neonates vaccinated with hepatitis B vaccine had a 3-fold greater risk of ASD; risk was greatest for non-white boys.

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NOVEL, NONINVASIVE BIOMARKER OF FRUIT AND VEGETABLE INTAKE IN PRESCHOOL CHILDREN

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PURPOSE: Assessing fruit and vegetable intake in children is difficult. Self-report methods are subject to bias and measurement error, while measurement of carotenoid status in blood or tissue by HPLC (current best objective biomarker) is invasive and expensive. Resonance Raman spectroscopy (RRS), a novel, noninvasive method of measuring carotenoid status in skin using visible light, is an attractive new alternative to HPLC.

METHODS: RRS was used to estimate the variability and identify predictors of dermal carotenoid status in a large community-based sample ($N = 381$) of low-income preschool children in Connecticut. Children had their dermal carotenoid status assessed by RRS at one time point and dietary information was collected from parents using validated food frequency and food preference questionnaires.

RESULTS: Mean age was 3.8 years, 59.8% Hispanic or Latino, 50.7% male, and 47.0% of parents reported participation in SNAP (formerly, Food Stamp Program). Measured dermal carotenoid status produced an approximately normal distribution. Total fruit and vegetable intake assessed by food frequency and food preference questionnaires was positively associated with dermal carotenoid status ($p < 0.05$ for both). Age (years) was also positively associated ($p < 0.01$), while self-reported SNAP participation was inversely associated with dermal carotenoid status ($p < 0.01$).

CONCLUSION: An RRS measure of dermal carotenoids is a promising biomarker of dietary intake of fruits and vegetables in children.

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OCCUPATIONAL EXPOSURE AND AUTISM SPECTRUM DISORDER

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PURPOSE: To evaluate associations between parental occupational exposure and autism spectrum disorder (ASD).

METHODS: Complete occupational, exposure, and diagnosis data were available for 228 children (93 ASD, 135 control children) and their parents enrolled in the Childhood Autism Risks from Genetics and Environment study.