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New Study Links Timing of Alcohol Exposure In Pregnancy and FAS Physical Features

Results Show No ‘Safe’ Period For Drinking Alcohol In Pregnancy

Researchers at the California Teratogen Information Service (CTIS) Pregnancy Health Information Line, a state-wide non-profit organization based at the University of California, San Diego, have found new links between the timing of alcohol consumption during pregnancy and certain characteristics of Fetal Alcohol Syndrome (FAS). The results will be published in the April 2012 issue of *Alcoholism: Clinical & Experimental Research* and are currently available at *Early View* (online version).

The study uses data obtained by counselors at the CTIS Pregnancy Health Information Line, a toll-free service offering evidence-based clinical information about exposures during pregnancy and breastfeeding. It focuses on 992 California women who contacted the CTIS Pregnancy Health Information Line between 1978 and 2005 with questions about a wide variety of exposures and, after being counseled, agreed to participate in a follow-up study of their pregnancy outcome. The study specifically examines the timing of the mother’s reported alcohol exposure in relation to known physical features of Fetal Alcohol Syndrome (FAS). Importantly, all infants in the study, whether identified as exposed to alcohol or not, received a special screening for birth defects by Kenneth Lyons Jones, MD, chief of the Division of Dysmorphology/Teratology at the Department of Pediatrics and CTIS Medical Director.

The physical features of Fetal Alcohol Syndrome can be very subtle and not easily recognizable, particularly in newborns. These features include a smooth upper lip with thin/smooth red portion of the lip, short eye openings, smaller head size, and reduced birth weight and length.

Researchers found that every pattern of higher prenatal alcohol consumption (no matter the timing in pregnancy) was associated with an increased risk of having an underweight infant or one with a reduced birth length. However, there were also significant associations between higher alcohol consumption in the second half of the first trimester and certain facial features of FAS, in addition to lower birth weight and length. “For every one drink increase in the average

number of drinks consumed daily, there was a 25 percent increased risk for smooth upper lip, a 22 percent increased risk for thin red portion of the upper lip border, a 12 percent increased risk for small head size, a 16 percent increased risk for reduced birth weight, and an 18 percent increased risk for reduced birth length,” said Haruna Sawada Feldman, PhD, MPH, CHES, post-doctoral student and lead author of the study.

“These findings show that drinking alcohol between week seven and 12 of pregnancy are clearly associated with a risk for FAS facial features, as well as a decrease in birth weight and length,” said Christina Chambers PhD, MPH, professor of pediatrics at UC San Diego and CTIS program director. “However, this should not be misinterpreted to mean that drinking during weeks 1 through 7 is safe. This study only looked at data that included live births. It does not include women who had miscarriages or stillbirths possibly resulting from early alcohol exposure,” she explained. “If anything, this further supports the idea that there is no designated ‘safe’ period for drinking alcohol in pregnancy, and that discontinuing alcohol consumption as soon as possible, and, ideally, prior to pregnancy is the best approach to preventing FAS.”

Questions or concerns about alcohol or any other exposure during pregnancy or breastfeeding can be directed to the CTIS Pregnancy Health Information Line at 800- 532-3749 or via instant message counseling at CTISPregnancy.org. Outside of California, please call the Organization of Teratology Information Specialists (OTIS) at 866-626-6847.

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