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2 studies present new data on effects of alcohol during pregnancy

Scientific data continue to indicate that higher intake of alcohol during pregnancy adversely affects the fetus, and could lead to very severe developmental or other problems in the child. However, most recent publications show little or no effects of occasional or light drinking by the mother during pregnancy. The studies also demonstrate how socio-economic, education, and other lifestyle factors of the mother may have large effects on the health of the fetus and child; these must be considered when evaluating the potential effects of alcohol during pregnancy.

A very large population-based observational study from the UK found that at the age of 5 years, the children of women who reported light (no more than 1-2 units of alcohol per week or per occasion) drinking did not show any evidence of impairment on testing for behavioral and emotional problems or cognitive ability. There was a tendency for the male children of women reporting "heavy/binge" drinking during pregnancy (7 or more units per week or 6 or more units per occasion) to have poorer behavioural scores, but the effects were less clear among female offspring.

A second study, published in *Pediatrics*, based on a population in Western Australia examined the associations between dose, pattern, and timing of prenatal alcohol exposure (PAE) and birth defects and found similar results, that there was no association between low or moderate prenatal alcohol exposure and birth defects.

Data from a randomly selected, population-based cohort of non- indigenous women who gave birth to a live infant in Western Australia (WA) between 1995 and 1997 (N = 4714) were linked to WA Midwives Notification System and WA Birth Defects Registry data. Information about maternal alcohol consumption was collected 3 months after birth for the 3 month period before pregnancy and for each trimester separately.

Low alcohol consumption was defined as less than 7 standard drinks (10g) a week, and no more than 2 drinks on any one day. Women who consumed more than 70g per week were classified as heavy drinkers and women consuming more than 140g were classified as very heavy drinkers.

The study results indicate that the prevalence of birth defects classified as ARBDs by the IOM was low. Compared with abstinence, heavy prenatal alcohol exposure in the first trimester was associated with increased odds of birth defects classified as ARBDs (adjusted odds ratio: 4.6 [95% confidence interval: 1.5-14.3]), with similar findings after validation through bootstrap analysis. There was no association between low or moderate prenatal alcohol exposure and birth defects.

Overall, current scientific data indicate that while drinking during pregnancy should not be encouraged, there is little evidence to suggest that an occasional drink or light drinking by the mother is associated with harm. Heavy drinking, however, is associated with serious developmental defects in the fetus.

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References:

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For the detailed critique of this paper by the International Scientific Forum on Alcohol Research, go to www.alcoholforum4profs.org and click on Recent Reports.

The 35 specialists who are members of the Forum are happy to respond to questions from Health Editors regarding emerging research on alcohol and health and will offer an independent opinion in context with other research on the subject.

