



Hot Topics

The Sapphire Group Examines the Association between Disinfection By-Products and Reproductive Toxicity

The Sapphire Group recently published a peer-reviewed paper investigating the association between disinfection by-products (DBP), a side effect of water chlorination, and reproductive and developmental effects. Headed by Dr. Carol Graves of The Sapphire Group, the study considered all toxicological and epidemiological evidence for the various effects. The study demonstrated that for more than a dozen reproductive and developmental outcomes the weight of evidence shows no association between DBP and concerns such as low and very low birth weight, preterm delivery, some specific congenital anomalies, and neonatal death.

The analysis found inconsistent or weak results for all birth defects combined, all central nervous system abnormalities, neural tube defects, spontaneous abortion, and stillbirths. However, the evidence did suggest a positive association with DBP exposure for some growth retardation (such as intrauterine growth retardation) and for urinary tract anomalies. The investigation team noted that the exposure assessment in studies of DBP and these outcomes is inadequate to demonstrate a definite association. The Sapphire Group contends that exposure studies of trihalomethanes (THM), a specific disinfection by-product, must be improved to determine adequately the concentration of THM and the quantity of water actually consumed by pregnant women. An abstract of the paper can be found on the web site in the About Us section under publications. The full document is also available upon request.