

Studies use poor design to link chlorinated pools to cancer

By ACSH Staff — October 18, 2010

The headline of an article in *Aquatics International* reads “[Highly publicized studies link cancer, DBP's \[1\]](#),” which kindly stated, is much ado about nothing. Based upon three studies, researchers found that disinfection by-products (DBPs) — certain byproducts of chlorine sanitizers used in swimming pools — may correlate with respiratory problems and bladder cancer. The results were based on blood, urine and exhaled air samples tested for cancer biomarkers in 49 adults before and after they swam for 40 minutes in an indoor chlorinated pool. After swimming, the concentrations of four trihalomethanes found in exhaled breath were seven times higher than before swimming, according to study author Dr. Manolis Kogevinas, M.D., Ph.D., professor of epidemiology at the Centre for Research in Environmental Epidemiology in Barcelona.

ACSH's Dr. Gilbert Ross has some gripes with the study design, however. “First of all, did they even use a control group in their study, such as comparing their results to people who swim in sea water? And secondly, are there any studies that demonstrate that people who swim frequently have an increased risk of any kind of cancer? I think not. That’s probably because the chemicals they found are associated with health effects only at much higher exposure levels than those found here.”

In another study, researchers analyzed pool water and found more than 100 DBPs present, many of which contained nitrogen, which was likely formed from human organic matter. A perplexed Dr. Ross asks, “Does this mean that nitrogenous DBP is worse than non-nitrogenous DBP? These studies are illegitimate and have no relevance to humans.”

According to the article, these study results have been well publicized by major news organizations, but ACSH's Dr. Elizabeth Whelan says that people who are against chlorine have been spewing this junk science for a long time now.

Indeed, it is the absence of chlorine that can really have a devastating public health effect, says ACSH's Dr. Josh Bloom. “Chlorinating pool water is a very vital means of disinfection that reduces the risk of communicable disease, which is quite high in pools — especially where little children swim.”

Dr. Ross also reminds us of the cholera epidemic that killed thousands in Peru and other South American countries in the early 1990s because of inadequate chlorination systems.

Source URL: <https://www.acsh.org/news/2010/10/18/studies-use-poor-design-to-link-chlorinated-pools-to-cancer>

Links

[1] http://www.aquaticsintl.com/2010/oct/1010n_dbps.html