School Buses and Diesel Fuel

By ACSH Staff — February 1, 2000

Executive Summary

Diesel exhaust we all know the smell and sight, whether coming from an 18-wheeler’s exhaust stack or the tailpipe of a diesel-powered school bus. But what do we know about the risks that diesel exhaust (DE) may pose to human health? The authors of No Breathing in the Aisles, a report released by the Natural Resources Defense Council (NRDC) and the Coalition for Clean Air (CCA), claim that children riding diesel-powered school buses are at a significantly increased risk of developing cancer from exposure to DE. This is a serious claim, if true, and one that merits analysis from a scientific perspective. The American Council on Science and Health (ACSH), committed to sound public health policies and the protection of human health, has reviewed the NRDC/CCA report and concludes the following:

- The monitoring study, which forms the basis of the report and from which the NRDC/CCA based its risk estimates for children, is not described in sufficient detail, nor are enough data presented to allow for a thorough and informed critique of its validity. Thus, the conclusions regarding cancer risk to children from DE exposure cannot be confirmed.
- The estimated DE exposures for children riding a diesel-fueled school bus have not been confirmed through other independent studies. Quantitative human exposure data are rarely available for DE, particularly for non-occupational settings, and thus, comparisons to the NRDC/CCA findings are not possible.
- DE has been associated with a small increase in lung cancer risk in some epidemiological studies involving occupational exposures. Typically, occupational DE exposures are far greater than ambient exposures to which children and the public would potentially be exposed. No published studies are known that link ambient or non-occupational exposure to DE with increased cancer risk.
- The estimated cancer risk for children calculated by the NRDC/CCA uses a unit risk factor that has not received general acceptance by the scientific community and is not currently used by the U.S. Environmental Protection Agency (EPA).
- No case reports or studies are known to link childhood exposure to DE, either on buses or in any other exposure scenario, with an increased risk of developing cancer.