

Sue Koger's Discussion Questions to follow PBS film "Kids and Chemicals":

What are some of the health risks associated with exposures to toxic chemicals? [Childhood cancers, including leukemia; asthma; learning disabilities, including dyslexia; autism; possibly also attention deficit disorder, hyperactivity, aggression, violence.]

How many children suffer from learning disabilities? [At least 5-10%.]

What percentage of chemicals are tested for toxicity? ["Of the 3000 high production volume chemicals in use in this country today, only 43% have been even minimally tested," according to Dr. Phillip Landrigan of the Mount Sinai School of Medicine in New York City. "Only about 10% have been thoroughly tested to examine their potential effects on children's health and development."]

Why are children particularly vulnerable to the health effects of toxins? ["First of all they're more heavily exposed pound for pound," says Landrigan. "They eat more food, they drink more water, they breathe more air. Then, of course, kids play on the ground. They live low, they put their hands in their mouth and so they transfer more toxic chemicals into their body than we do." Further, there are critical periods of prenatal development when the fetus is particularly susceptible to adverse toxic effects. For example, if exposure is during the initial implantation of the fertilized egg, miscarriage can result. Exposures during the first trimester can result in birth defects (a hole in the heart or limb malformation). Brain development occurs during the second trimester, and neurotoxins can paralyze migrating cells, impacting intellectual and emotional development. Genetic mutations can also be produced, increasing risk for cancer.]

What are the risks to scientists studying these issues? [Industry propaganda and legal action claiming "scientific misconduct," e.g., against Herbert Needleman for his work on the effects of lead exposure.]