PESTICIDES AND REPRODUCTIVE HARM

Many chemical pesticides have been linked to reproductive and developmental harm. Unfortunately, use of these pesticides in California schools is widespread. In a 2002 survey, 87% of surveyed school districts planned to use pesticides identified by the State of California as reproductive or developmental toxicants.[1]

Exposure to pesticides may lead to:

Birth defects and deformities

- Pesticides can lead to growth retardation of the fetus, lower birth weight and smaller size infants
- Children exposed to pesticides through their mother may experience circulatory, respiratory, genital, urinary, and musculoskeletal abnormalities.
- Research links pesticides with increasing rates of cryptochidism, a deformity of the testicles, and hypospadias, a birth defect resulting in a deformation of the penis. Its occurrence in the U.S. has more than doubled since 1970.[2]
- Beyond serious health problems experienced by children, birth defects also place tremendous emotional, social, and financial burdens on parents and communities.[3]

Female and male infertility/sterility

- Males who have more exposure to pesticides have increased percentage of physically deformed sperm and decreased sperm density, while females have experienced menstrual abnormalities
- Studies have shown that men exposed to pesticides had significantly lower fertility compared to unexposed males.[4]

Interference with hormonal function

- Some pesticides block androgens and the thyroid hormone
- Some pesticides mimic estrogen, a key hormone that helps to regulate the reproductive system and controls sexual development, and are very likely to be the cause of the early onset of puberty. Scientists have found that over three-quarters of the children who experienced early puberty had high levels of DDT in their blood.
- Pesticides can lead to an increased susceptibility to hormone-sensitive cancers such as breast cancer.[5]

Developmental effects in fetuses and children

- Pesticides can have permanent effects on sexual differentiation and organ formation that occurs in utero by altering or inhibiting essential hormones during pregnancy.
- Children whose mothers were exposed to pesticides may exhibit short-term memory and behavioral problems.
- Children exposed to pesticides present in their mother's blood and breast milk reveal persistent, measurable intellectual impairment, which can not be overcome by environment or education.[6]

AB 1006 (Chu) would ban the use of the most highly toxic pesticides in schools, including pesticides classified by the US EPA or CA Prop 65 as Reproductive or Developmental Toxins.

Call 888-CPR-4880 or visit www.calhealthyschools.org to get involved.

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[1] McKendry, C., *Learning Curve: Charting Progress on Pesticide Use and the Healthy Schools Act*, Californians for Pesticide Reform 2002.

[2] Garcia-Rodriguez, J., M. Garcia-Martin, M. Nogueras-Ocana, et al. (1996). "Exposure to pesticides and cryptorchidism: Geographical evidence of a possible association." Environmental Health Perspectives 104: 1090-95.

[3] Kristensen, P. L.M. Irgens, A. Anderson, et al. (1997). "Birth defects amond offspring of Norwegian farmers, 1967-1991." Epidemiology 8 5:537-44.

[4] Pesticide Action Network North America, http://www.panna.org/resources/panups/panup_20020802.dv.html

[5] *Global Pesticide Campaigner* (Volume 11, Number 3), December 2001

[6] Solomon, Gina, O.A. Ogunseitan, Jan Kirsch. 2000 "Pesticides and Human Health: A Resource for Health Care Professionals," Physicians for Social Responsibility and Californians for Pesticide Reform.