

Does Agent Orange (2,4,5-T, Dioxin) Cause Disease?

1. 1969 -- The National Cancer Institute revealed that 2,4,5-T was the most potent man-made cause of birth defects (teratogen) ever tested in mice.
2. 1970 – Military stops using Agent Orange in Vietnam.
3. 1970-1976 -- Other tests showed dioxin to be the most potent carcinogen ever tested in laboratory animals.
4. Early 1980s – More animal studies showed that dioxin affected almost every organ system in one experimental animal or another.
5. 1978 – Ranch Hand Study begins.
6. 1984 – **Legal** -- \$180 million Agent Orange settlement. Includes all Vietnam Veterans who served between 1962 – 1971 (Agent Orange sprayed from 1965 – 1970).
7. 2000 – Ranch Hand Study Results to date:
 - a. The mortality rate of the Ranch Hand group is the same as the matched comparison group and significantly lower than the rate for the comparable male population of the United States.
 - b. The number of birth defects among children of Ranch Hand veterans no greater than comparison group.
 - c. Agent Orange is associated with adult-onset diabetes (Type II).
 - d. Cardiovascular disease findings were mixed. Some indicators of cardiovascular disease are related to herbicide or dioxin exposure, and other indicators are not related.
 - e. Biological processes relating herbicide exposure with diabetes or cardiovascular disease have not been described, and until such relationships are found, *the statistical findings may not reflect cause and effect.*
 - f. No consistent evidence in the Ranch Hand population that dioxin exposure is related to cancer.

8. 2002 – Institute of Medicine (IOM) of the National Academy of Sciences: “It is not possible to quantify the degree of risk likely to be experienced by veterans because of their exposure to herbicides in Vietnam. The existing evidence of herbicide exposure among various groups studied suggests that most Vietnam veterans (except those with documented high exposures, such as participants in Operation Ranch Hand) had lower exposure to herbicides and TCDD than did the subjects in many occupational and environmental studies.”
9. 2003 – **Legal** -- Divided Supreme Court allows Agent Orange Class Action Settlement to be Re-opened.