



# Agent Orange Review

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Information for Veterans Who Served in Vietnam

August 1996

## President Clinton Announces New Benefits; VA Will Recognize Prostate Cancer, Nerve Disorder, Propose Birth Defect Legislation

On May 28, 1996, President Clinton announced that Vietnam veterans with prostate cancer, and acute and subacute peripheral neuropathy are entitled to disability payments based on their exposure to Agent Orange. The President said the Department of Veterans Affairs (VA) also will be proposing legislation to provide an appropriate remedy for Vietnam veterans' children who suffer from spina bifida. (VA sent draft legislation to Congress on July 25, 1996.)

### NAS Review Prompted VA Action

The decisions follow an in-depth VA review of a report issued on March 14, 1996, by the National Academy of Sciences (NAS) on the health effects of exposure to Agent Orange and other herbicides. The NAS, a non-governmental organization under contract with VA, found that there is new limited or suggestive evidence that indicates an association between herbicide exposure and prostate cancer, acute and subacute peripheral neuropathy (a neurological disorder) in Vietnam veterans, and spina bifida (a congenital abnormality) in their children.

Secretary of Veterans Affairs Jesse Brown said: "I am deeply concerned about the NAS finding, particularly the suggestion that the children of Vietnam veterans may be at higher risk for spina bifida, since VA does not have the authority to provide benefits based on birth defects in veterans' children. We will seek legislation that would provide an appropriate remedy."

### "Continuing Cost of War"

Secretary Brown also said that he is directing that regulations be developed as quickly as possible, so VA can begin compensating Vietnam veterans currently disabled from acute and subacute peripheral neuropathy, if manifested within one year of herbicide exposure, and those with prostate cancer. "These benefits represent the continuing cost of war," Secretary Brown added.

Secretary Brown noted that the VA decisions are based on statutory standards that are not ordinarily used for purposes of scientific inquiry, saying: "The evidence, pro and con, is quite evenly balanced regarding these conditions. But the President and I firmly believe that VA needs to be on the side of veterans and their children."

## Secretary of Veterans Affairs Jesse Brown on President Clinton's Agent Orange Announcement:

I was privileged to be at President Clinton's side as he announced that Vietnam veterans afflicted with prostate cancer or acute and subacute peripheral neuropathy are entitled to disability payments based on their exposure to Agent Orange.

He also said that VA would propose legislation providing an appropriate remedy for children of Vietnam veterans suffering from spina bifida, a birth defect.

These decisions follow an in-depth VA review of a report by the National Academy of Sciences on the health effects of exposure to Agent Orange, which found new limited or suggestive evidence of an association with these disorders in Vietnam veterans and their children.

I am deeply concerned about these findings, particularly the suggestion that children of Vietnam veterans may be at higher risk for spina bifida, since VA does not have authority to provide them benefits. I am proud to say that the President has promised his complete support in seeking legislation for those children as we in VA clear the way to begin compensating veterans directly for the other conditions.

We will continue to closely follow research in this area to meet the needs of veterans and their families.

Vietnam veterans who believe they have Agent Orange-related health problems should contact our medical centers and regional offices, or call toll-tree 1-800-827-1000.



Secretary Jesse Brown

*Continued from column 1*

VA officials estimate that potentially up to 3,000 children of Vietnam veterans may be afflicted with spina bifida.

The proposed rule on prostate cancer and acute and subacute peripheral neuropathy will be published in the Federal Register to allow for public comment and participation in the rule-making process. VA anticipates publication of the final rule by October 1996.

*Continued on page 2 column 1*



## About the Review...

The "Agent Orange Review" is prepared by VA's Environmental Agents Service (EAS). The "Review" is published to provide information on Agent Orange and related matters to Vietnam veterans, their families, and others with concerns about herbicides used in Vietnam. The first issue was released in November 1982. The most recent edition (prior to the release of this issue) was dated May 1995. The August 1996 release is the twenty-fifth issue. It was written in late July 1996 and does not include developments that occurred since that time.

Comments or questions about the content of the "Review" are encouraged. Suggestions and ideas for future issues should be sent to Donald J. Rosenblum, Deputy Director, Environmental Agents Service (131), VA Headquarters, 810 Vermont Avenue, NW, Washington, DC 20420. Requests for additional copies of this and earlier issues should also be directed to Mr. Rosenblum. Please specify the issue date and the quantity sought. A limited supply of the issues published during the past seven years are available (October 1989, May 1990, August 1990, February 1991, April 1991, August 1991, December 1991, April 1992, September 1992, February 1993, September 1993, October 1994, May 1995, and August 1996). VA facilities should order additional copies from the VA Forms Depot.

VA updates the "Review" mailing address listing annually based on IRS records. "Review" recipients who have not been filing Federal income tax returns annually and have moved to another residence are encouraged to send their old and new addresses and Social Security number to the VA Automation Center (200/397), 1615 Woodward Street, Austin, TX 78772-0001.

Questions about the Agent Orange Registry examination program should be directed to the Registry Physician or Agent Orange Registry Coordinator at the nearest VA medical center. Questions regarding VA benefit programs, including disability compensation, should be referred to a veterans benefits counselor at the nearest VA facility. The telephone numbers can be found in the telephone directory under the "U.S. Government" listings. The national toll-free telephone number for information regarding VA benefits is 1-800-827-1000.

*Continued from page 1 column 2*

Approximately 2.6 million veterans served within the borders of South Vietnam and in adjacent waters. Vietnam veterans are not required to prove exposure to Agent Orange; VA presumes that all military personnel who served in Vietnam were exposed to Agent Orange.

In response to the NAS report, VA also is increasing funding for research to learn more about the possible relationship between herbicide exposure and the development of birth defects, including spina bifida, and other health problems in veterans' offspring. The Department has issued a request for proposals for a new Environmental Hazards Research Center that will focus on reproductive health issues. (See article on pages 3-4.) VA is conducting the Women Vietnam Veterans

Reproductive Health Study and is supporting the NAS Developmental Toxicity project.

VA currently recognizes seven diseases as presumptively related to exposure to Agent Orange and other herbicides: chloracne, porphyria cutanea tarda, soft-tissue sarcoma, Hodgkin's disease, multiple myeloma, respiratory cancers (lung, bronchus, larynx, trachea) and non-Hodgkin's lymphoma.

## NAS Conclusions about Health Outcomes

In the 1996 Update, the National Academy of Sciences assigned each health outcome considered in the report to one of four categories based on the scientific evidence of an association with Agent Orange or other herbicides used in Vietnam. This was the same procedure used for the earlier report, released in July 1993. In making the assignments the NAS considered a large range of occupational, environmental, and veterans studies.

The categories are (1) Sufficient Evidence of an Association, (2) Limited/Suggestive Evidence of an Association, (3) Inadequate/Insufficient Evidence to Determine Whether an Association Exists, and (4) Limited/Suggestive Evidence of No Association.

### Sufficient Evidence of an Association

The NAS included health outcomes in the first category when a positive association has been observed between herbicides and the outcomes in studies in which chance, bias, and confounding could be ruled out with reasonable confidence. In its initial report, the NAS included soft-tissue sarcoma, non-Hodgkin's lymphoma, Hodgkin's disease, chloracne, and porphyria cutanea tarda (in genetically susceptible individuals) in this category. In the 1996 update, the NAS dropped porphyria cutanea tarda to the second category while the other conditions remained in the first. No additional health outcomes were included in the first category.

### Limited/Suggestive Evidence of an Association

The NAS listed those conditions in the second category when the evidence reviewed is suggestive of an association between herbicides and the outcome but is limited because chance, bias, and confounding could not be ruled out with confidence. Health outcome would be included in this category when, for example, at least one high quality study shows a positive association, but the results of other studies are inconsistent. In the report released in 1993, the NAS included only three outcomes (respiratory cancers, prostate cancer, and multiple myeloma) in this category.

Six health outcomes were included in this category in 1996. In addition to these three cancers and porphyria cutanea tarda (mentioned above), the NAS cited acute and subacute peripheral neuropathy in Vietnam veterans and spina bifida in their children. The earlier report had listed peripheral nervous system disorders as a group. The 1996 update distinguished between acute and subacute peripheral neuropathy and chronic

peripheral nervous system disorders (which remained in the third category). Similarly, the NAS separated spina bifida from other birth defects (which remained in the third category).

### **Inadequate/Insufficient Evidence to Determine Whether an Association Exists**

Most conditions evaluated in 1996 report (as well as in the 1993 effort) were listed in the third category. The NAS assigned health outcomes there when available studies are of insufficient quality, consistency, or power to permit a conclusion regarding the presence or absence of an association.

The following outcomes were listed in NAS category three: hepatobiliary cancers, nasal/nasopharyngeal cancer, bone cancer, female reproductive cancers (cervical, uterine, ovarian), breast cancer, renal cancer, testicular cancer, leukemia, spontaneous abortion, birth defects (other than spina bifida), neonatal/infant death and stillbirths, low birthweight, childhood cancer in offspring, abnormal sperm parameters and infertility, cognitive and neuropsychiatric disorders, motor/coordination dysfunction, chronic peripheral nervous system disorders, metabolic and digestive disorders (diabetes, changes in liver enzymes, lipid abnormalities, ulcers), immune systems disorders (immune suppression and autoimmunity), circulatory disorders, respiratory disorders, and skin cancer.

The 1996 listing for the third category is very similar to the 1993 report. The changes are the two noted above (that is, peripheral nervous system disorders and birth defects) plus an elevation of skin cancer from the fourth category.

### **Limited/Suggestive Evidence of No Association**

Health outcomes are included in the fourth category when several adequate studies, covering the full range of levels of exposure that humans are known to encounter, are mutually consistent in not showing a positive association between exposure to herbicides and the outcome at any level of exposure. The 1996 report included gastrointestinal tumors (stomach cancer, pancreatic cancer, colon cancer, rectal cancer), bladder cancer, and brain tumors. The only change from the earlier NAS report in this category was the elevation of skin cancer to the third category.

### **Another NAS Report in 1998**

The NAS will be re-evaluating existing scientific evidence while assessing new information regarding the possible long-term health consequences of herbicide exposure in two years, as required by the Agent Orange Act of 1991.

### **NAS Reports Available for Purchase**

*Veterans and Agent Orange: Update 1996*, ISBN 0-309-05487-7; 1996, 384 pages, 6 x 9, \$49.00, can be purchased from the National Academy Press, 2101 Constitution Avenue, NW, Lockbox 285, Washington, DC 20055. All orders must be prepaid. Shipping and handling cost for the first copy ordered is an additional \$4.00 and \$0.50 for each additional copy. Purchasers from California, Washington, DC, Florida, Maryland, Missouri, Texas, or Canada must add the

applicable sales tax or GST. Prices apply only in the United States, Canada, and Mexico and are subject to change without notice.

To order by telephone using VISA/MasterCard/American Express, call toll-free 1-800-624-6242 or call 202-334-3313 in the Washington, DC metropolitan area. The fax number is 202-334-2451. Quantity discounts are also available (5-24 copies - 15%; 25-499 copies - 25%). To be eligible for a discount, all copies must be shipped and billed to one address. Purchase orders can be placed electronically via Internet at <http://www.nap.edu>.

This purchase information applies to customers in North America only. All other international customers should contact the National Academy Press for export prices and ordering information.

The earlier report, *Veterans and Agent Orange: Health Effects of Herbicides Used In Vietnam*, ISBN 0-309-04887-7: 1994, 832 pages, 6 x 9, \$79.95, is also available.

## **VA to Establish Environmental Hazards Research Center on Reproductive and Developmental Outcomes**

Many people, including veterans and their families, have expressed concern that some aspect of military service may have increased the likelihood of adverse reproductive health problems, including birth defects and various developmental abnormalities, in the children or grandchildren of certain veterans.

Concerns have been voiced by veterans who were exposed to ionizing radiation during nuclear weapons testing or during the occupation of Japan at the conclusion of World War II, by Vietnam veterans worried about the long-term health consequences of Agent Orange and other herbicides used in Vietnam, and by Persian Gulf War veterans with regard to a wide variety of potential environmental hazards encountered in the Southwest Asia theater of operations.

### **Intended to Fill Information Gap**

Top VA officials recognize that definitive answers are not available to many of the questions raised about the possible untoward reproductive effects of exposure to various toxic substances and environmental hazards. VA has acted to fill this information gap. On May 24, 1996, VA Under Secretary for Health Kenneth W. Kizer, M.D., M.P.H., announced a formal "solicitation for applicants to establish a research center for epidemiological, clinical, and basic science studies of environmental hazards and their effects on reproductive and developmental outcomes."

### **\$900,000 Available Over 3 Years**

The VA Office of Research and Development will provide funds, for up to three years, for a single research center focused on the human reproductive and developmental effects of environmental and occupational exposures associated with military service. Research funding for the core and associated

research projects will be available up to a maximum of \$300,000 per fiscal year, beginning in the first quarter of Fiscal Year 1997 (October 1996--December 1996). In addition, \$50,000 may be requested for equipment and start-up funds in the last quarter of Fiscal Year 1996.

### **Center Will Involve Non-VA Researchers Also**

VA medical centers are invited to submit a full proposal for review. The deadline for receipt is August 15, 1996. It is expected and strongly encouraged that the proposed Center be formed as a consortium involving investigators from VA and other government and non-government agencies, such as universities, state agencies, and other Federal entities, such as the Department of Defense, the Department of Health and Human Services, and the Environmental Protection Agency.

### **Q's and A's**

The Q's and A's (Questions and Answers) feature of the "Review" responds to questions that have been received from various sources. Questions for future issues should be sent to Donald J. Rosenblum, Deputy Director, Environmental Agents Service (131), VA Headquarters, 810 Vermont Avenue, NW, Washington, DC 20420. We cannot guarantee that all questions will be used in this column, but they will be considered.

*I heard something on the news about a committee's continued scientific review of the possible effects of Agent Orange on Vietnam veterans. Does VA still have an Agent Orange examination program ?*

Yes. If you are a Vietnam veteran and have not had the free physical examination provided at all VA medical centers to Vietnam veterans who want to be included in the Agent Orange Registry, you may wish to contact your local VA medical center to make an appointment. While the Agent Orange Registry exam will not provide you with definitive answers about the relationship between Agent Orange exposure and any medical problems you may have, it may uncover conditions that require prompt treatment.

More than 250,000 Vietnam veterans have completed the Registry examination. If you wish to be considered for disability compensation, you must file a claim for that program. Participation in the Registry does not automatically mean that you have filed a claim for compensation.

P.S. The news you heard clearly concerns the National Academy of Sciences Institute of Medicine activities, described elsewhere in this issue.

*Are there special Agent Orange tests that I will get during my examination ?*

No. When you have your appointment, your medical history will be recorded, you will be asked about your herbicide exposure, and a complete physical examination will be conducted. That includes certain blood tests, urinalysis, and a chest x-ray (if medically necessary). The person who examines you will look carefully for symptoms of any of the conditions that have been recognized as service-connected based on exposure to herbicides,

Unfortunately, there are no medical tests that can show whether a health problem was caused by Agent Orange or other

herbicides used in Vietnam. There are tests that can measure the current level of dioxin, a contaminant found in one of the ingredients of Agent Orange, in blood or tissue, but such tests are used for research purposes. There are serious questions about their value in routine examinations.

### **President Signs Another Extension of Special Treatment Authority**

On February 13, 1996, President Clinton signed Public Law 104-110. This legislation extends the legal authority for a variety of VA programs and activities, including the special treatment eligibility program for certain Vietnam veterans for medical problems that may be related to their exposure to herbicides during the Vietnam Conflict. The extension, through December 31, 1996, was included in Section 101 of Public Law 104-110.

Health care services under this program are limited to hospital and nursing home care in VA facilities and outpatient care in VA facilities on a pre-or post-hospitalization basis or to prevent a need for hospitalization. Health care services are provided without regard to a veteran's age, service-connected status, or the veteran's ability to pay for the expenses of such care. Veterans receiving outpatient care under this program are given priority ahead of nonservice-connected veterans and equal to former prisoners of war who are receiving care for nonservice-connected conditions.

### **Sixth Extension of Program**

The special treatment eligibility, sometimes called "priority health care," was initially established in the "Veterans' Health Care, Training, and Small Business Loan Act of 1981," Public Law 97-72, enacted November 3, 1981. The special authority was subsequently extended by Public Law 99-166, Public Law 100-687, Public Law 1024, Public Law 103-210, Public Law 103-452, and now Public Law 104-110.

Under Public Law 103-452, enacted November 2, 1994, the authority was extended through June 30, 1995. While the latest legislation was not enacted until more than seven months after that expiration, VA facilities continued to administer the program as if an extension had been approved. Section 103 of Public Law 104-110 ratified this VA action.

Legislation is pending in Congress to provide for another extension of this authority. VA officials expect that the seventh extension will be approved in the near future.

### **Term "Priority Health Care" May Be Misleading**

Although the law uses the term "priority health care," VA officials have noted that some veterans have interpreted it to mean that they have "head of the line" privileges when receiving medical care. That is not a correct interpretation. Priority health care is a process, established by law, identifying the sequence in which veterans will be accepted for care by VA.

A veteran's priority is based on the level of his or her eligibility. (For example, a veteran with a service-connected condition rated at 100% will clearly be given priority over a veteran with minor health complaints.) Priority becomes an

issue when the demand for care is consistently greater than the care which can be provided with available VA resources. When this occurs, new applicants for medical care are accepted if their priority category is above the priority level where appropriate care can be provided within available resources.

### **Additional Information**

Under law, all veterans have varying degrees of eligibility and as such have different restrictions/requirements imposed. Due to this complexity in determining eligibility for VA medical care benefits, any veterans with questions are strongly encouraged to contact the admissions office at the nearest VA medical care facility. Veterans will be interviewed individually and the eligibility will be determined accordingly.

### **Air Force "Ranch Hand" Health Study Updated**

In October 1995, the Air Force released another report on the health of former Air Force personnel exposed to Agent Orange and its dioxin contaminant during the Vietnam Conflict. The report is based on findings from the fourth in a series of six medical examinations of veterans of Operation Ranch Hand, the unit responsible for spraying herbicides in Vietnam from 1962 to 1971.

The report states that Ranch Hands were not at increased risk of cancer nor had they experienced increased incidences of benign or malignant skin disease. The report notes a possible association between dioxin and diabetes and a relationship between dioxin exposure and heart disease.

### **20-Year Study**

The purpose of the Air Force Health Study is to determine whether those individuals involved in the spraying of herbicides in Vietnam during the Ranch Hand Operation have experienced adverse health effects as a result of their participation in that program. The study is designed to evaluate both the mortality (death) and morbidity (disease) in these individuals over a 20-year period beginning in 1982. Other Air Force veterans who served in Vietnam, but who did not spray herbicides serve as controls or comparisons.

The study has included physical examinations, laboratory testing and medical history gathering in 1982, 1985, 1987, and 1992. Additional examinations are planned for 1997 and 2002.

### **Liver Function Concerns**

In terms of overall general health, this examination found that Ranch Hands were similar to the comparisons and that both groups were healthier than the general population. There were no medically important differences between Ranch Hands and comparisons with regard to digestive diseases of the liver; however, some laboratory measures of liver function correlated with dioxin levels. Although these laboratory findings were not medically important on an individual basis, they may be indicative of the presence of some toxicity as a result of dioxin

exposure that could increase the likelihood of liver damage in those exposed to other damaging conditions, such as hepatitis or alcohol abuse.

### **Association with Lipid Metabolism Suggested**

Blood lipids were similar in both groups; however, serum cholesterol and triglycerides increased with dioxin, and high density lipoprotein (HDL) decreased with dioxin in Ranch Hands. A possible association between dioxin and lipid metabolism is suggested by the study results, but cause and effect has not been established.

### **Findings Suggest Relationship Between Dioxin and Heart Disease**

Ranch Hands are not experiencing increased risk of heart disease or heart attacks; however, recent mortality studies have shown that Ranch Hand enlisted ground crew, the subgroup with the highest dioxin levels, are experiencing increased numbers of deaths due to heart disease. The risk of several electrocardiographic abnormalities increased with dioxin, but the overall Ranch Hand risk was not increased over that of the comparisons. Although these findings suggest that dioxin exposure is related to heart disease in Ranch Hands, no cause and effect has been established.

### **Association Between Dioxin and Glucose Metabolism and Insulin Production Suggested**

A study of endocrine function found no overall differences between Ranch Hands and comparisons with regard to thyroid disease or diabetes; however, blood glucose levels and insulin increased with dioxin in nondiabetics, and insulin decreased with dioxin in diabetics. The study investigators concluded that a possible association between dioxin and glucose metabolism and insulin production is suggested, but remains to be proved.

### **Caution Urged in Applying Results to Others**

Air Force scientists cautioned against applying these results directly to all Vietnam veterans because other studies have shown that the dioxin levels are usually below 10 parts per trillion (ppt) in veterans who did not handle large quantities of Agent Orange as part of their jobs. Many Ranch Hands had levels much higher than 10 ppt.

This report identified important relationships between dioxin and health. Investigators indicated that they do not know whether dioxin could affect health directly or as a step in series of events. The researchers speculated that data analyzed following the next physical examination in 1997 may help answer this question.

### **For Additional Information**

This work is part of a continuing research study at the Armstrong Laboratory, Human Systems Center, Brooks Air Force Base in Texas. Inquiries concerning this report and/or ongoing Ranch Hand research efforts should be directed to the Office of the Air Force Surgeon General, Bolling Air Force Base, Washington, DC 20332-7050.

Articles regarding previous Air Force Health Study results have appeared in numerous issues of the "Agent Orange

Review," including the following recent issues: May 1990, February 1991, August 1991, April 1992, and February 1993. Future results of the Ranch Hand study will be included in the "Review" when possible.

## Agent Orange Lawsuit Settlement Information

VA continues to receive inquiries about the Agent Orange Veteran Payment Program, established as a result of the out of court settlement of the class action lawsuit brought by Vietnam veterans and their families against the manufacturers of Agent Orange. Please note that VA was not a party to the settlement and did not determine who was eligible for payments from the settlement fund or the amount of their benefits. We understand that the deadline to submit a disability or survivor application to the Payment Program was January 17, 1995.

The Agent Orange Class Assistance Program (AOCAP), also established as a result of the settlement, recently contacted us concerning an "important new publication." *The Legacy of Vietnam Veterans and Their Families: Survivors of War Catalysts for Change* is a book comprised of papers presented at the national symposium by the same title sponsored by the AOCAP and the American Association for University Affiliated Programs for Persons with Development Disabilities (AAUAP).

According to AOCAP, the book "emphasizes the strength and resilience of those who survived the war and returned to seek justice, fairness, and better lives for their families. Papers in the book thoughtfully examine the effects of war on Vietnam veterans and their families, and describe innovative, effective treatment and service coordination approaches."

The book can be purchased from the U.S. Superintendent of Documents. Purchasers can order copies by calling (202) 512-1800. The price is \$34, including shipping and handling (Order Code #7762, paperback). The book is also available at more than 600 Federal Depository Libraries throughout the U.S. The Department of Veterans Affairs does not endorse or recommend purchase of this book. Neither AOCAP nor

AAUAP is selling the book, and no portion of the purchase amount is disbursed to either organization. AOCAP officials indicate that since 1989, AOCAP "has awarded more than \$64 million to veterans' and family services agencies, universities, and other groups in all 50 states, the Navajo Nation, and Puerto Rico." The address of AOCAP is P.O. Box 27413, Washington, DC 20038-7413.

### Conditions Recognized as Service-Connected for Vietnam Veterans Based on Exposure to Agent Orange or Other Herbicides That Contain Dioxin

1. Chloracne
2. Non-Hodgkin's lymphoma
3. Soft tissue sarcoma
4. Hodgkin's disease
5. Porphyria cutanea tarda
6. Multiple myeloma
7. Respiratory cancers (including cancers of the lung, larynx, trachea, and bronchus)

### Conditions Pending Recognition as Service-Connected for Vietnam Veterans Based on Exposure to Agent Orange or Other Herbicides That Contained Dioxin

1. Prostate cancer
2. Peripheral neuropathy (acute or subacute)

### Condition in Children of Vietnam Veterans Pending Legislative Remedy

1. Spina bifida

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## Department of Veterans Affairs

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