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# Agent Orange Review

Vol. 18, No. 3

Information for Veterans Who Served in Vietnam

May 2002

## IOM on Childhood Leukemia: Revised Look Shows Inadequate Evidence for an Association with Agent Orange

A new review of scientific data requested by Secretary of Veterans Affairs Anthony J. Principi to look at the possible connection between Vietnam veterans' exposure to Agent Orange and a rare form of childhood cancer in the children of these veterans has found little evidence of a link.

On February 27, 2002, the National Academy of Sciences' (NAS) Institute of Medicine (IOM) released a report, entitled *Veterans and Agent Orange: Herbicides/Dioxin Exposure and Acute Myelogenous Leukemia in the Children of Vietnam Veterans*, that concluded that "there is inadequate or insufficient evidence to determine if an association exists between exposure to the herbicides used in Vietnam or their contaminants and acute myelogenous leukemia (AML) in the children of Vietnam veterans." The full text of the IOM report is available at [www.nap.edu](http://www.nap.edu).

"Right now, the scientific evidence doesn't support a connection between this disease in the children of Vietnam veterans and Agent Orange exposure," said Secretary of Veterans Affairs Anthony J. Principi, himself a combat Vietnam veteran. "If future studies reach the legal threshold, I will support creating benefits for these children of Vietnam veterans."

The IOM's 10-member "Committee to Review the Evidence Regarding the Link Between Exposure to Agent Orange and Acute Myelogenous Leukemia in the Children of Vietnam Veterans" based its conclusion on the scientific evidence reviewed in the IOM report as well as the cumulative findings of research reviewed in the previous *Veterans and Agent Orange* reports. This is a change from the 2000 IOM report, which concluded that there is "limited/suggestive evidence of an association" between exposure to herbicides in Vietnam veterans and AML in their children. The same individuals served on the committee that wrote the 2000 report. Dr. Irva Hertz-Picciotto, Professor, Department of Epidemiology, University of North Carolina at Chapel Hill, chaired both committees.

No single scientific study was key in reaching the conclusion in the IOM in the special report on AML. Rather, the IOM found that the information in different human studies over years of research did not meet

the definition established for limited/suggestive evidence, that is, "evidence is suggestive of an association between herbicides and the outcome, but limited because chance, bias, and confounding could not be ruled out with confidence." The Committee classifies an illness as "inadequate/insufficient to determine whether an association exists" when available studies are of insufficient quality, consistency, or statistical power to permit a conclusion regarding the presence or absence of an association.

### Background

Public Law 102-4, the Agent Orange Act of 1991, directs VA to obtain from the NAS an independent scientific review of the evidence regarding associations between diseases and exposure to herbicides used in support of military operations in the Republic of Vietnam during the Vietnam War.

Public Law 102-4 indicates that for each disease reviewed, it should be determined: (a) whether there is a statistical association between its occurrence and herbicide exposure; (b) the increased risk of the disease among those exposed to herbicides during service in Vietnam during the Vietnam era; and (c) whether there exists a plausible biological mechanism or other evidence of a causal relationship between herbicide exposure and the disease. The Academy is required to include in its report to VA a full discussion of the scientific evidence and reasoning that led to its conclusions.

In its initial report, *Veterans and Agent Orange: Health Effects of Herbicides Used in Vietnam*, pursuant to Public Law 102-4, released on July 27, 1993, IOM assigned each of the diseases considered to one of four evidentiary categories. The distinctions between categories were based on the weight of the "statistical association." The four evidentiary categories were: (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. The NAS used the same four categories to characterize health outcomes in all of its subsequent Agent Orange reports.

Under Public Law 102-4, whenever VA determines that a positive association exists between exposure to a herbicide agent and the occurrence of a disease, the Secretary of Veterans Affairs shall prescribe regulations providing a presumption of service connection for that



disease. In making the determination, VA must consider reports received from the IOM and all other credible medical and scientific information. To be considered a “positive association” the credible evidence in favor of an association must be equal to or greater than credible evidence against an association. In evaluating studies for this purpose, Public Law 102-4 directs VA to consider whether the findings of an association are statistically significant, are capable of replication, and withstand peer review.

### **Australian Study Flaw Prompted IOM Reassessment of AML Finding**

In addition to the initial (1993) Agent Orange assessment mentioned above, the NAS had released updates in 1996 (referred to as *Update 1996*), 1999 (identified as *Update 1998*), 2001 (subtitled *Update 2000*), a special report of diabetes (dated 2000), and now their most recent report, released on February 27, 2002, which focuses on a supplemental review of AML issue. The special supplemental report was prepared by IOM, at VA’s request, in response to important unforeseen development, specifically the announcement by Australian investigators that one of the scientific papers that the NAS reviewers relied upon in reaching their conclusion described above regarding AML contained a serious flaw.

On April 19, 2001, IOM released the latest in a series of comprehensive literature reports, entitled *Veterans and Agent Orange*, on the health effects of herbicides used in Vietnam. While that report, *Update 2000*, found no new link between Agent Orange exposure any health problems in Vietnam veterans not previously identified, IOM indicated that new evidence “supports the possibility of an association” between herbicides used in Vietnam and a rare childhood leukemia, known as acute myelogenous leukemia (AML). The more common form of childhood leukemia is known as acute lymphocytic (ALL). AML is a rapidly spreading form of leukemia that originates in certain bone marrow cells.

ALL was not associated in the NAS report with Agent Orange or other herbicides used in Vietnam. Little is known about what causes such diseases in children, how parents’ chemical exposures affect their children, or

### **VA Action on *Update 2000***

Shortly after receiving the study, Secretary Principi ordered VA officials to begin setting up benefits for affected children. Secretary Principi declared that VA has a “responsibility to provide benefits and programs that meet the needs of these veterans and their families.” Officials estimate that 500-1,000 children of Vietnam veterans have AML.

However, a totally unforeseen event put further action “on hold,” at least temporarily. Shortly after the release

### **About the Review**

The “Agent Orange Review” is prepared by VA’s Environmental Agents Service (EAS) with substantial assistance from the VA’s Compensation and Pension Service. 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. It is also available on-line at <http://www.va.gov/agentorange>. Back issues are also available at that site. The first issue was released in November 1982. The most recent edition is dated March 2002. The May 2002 release is the thirty-eighth issue. It was written in early March 2002 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, Agent Orange Review, Deputy Director, Environmental Agents Service (131), VA Central Office, 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 past years is available.

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 Agent Orange Review, Austin Automation Center (200/397A), 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 **eligibility for health care** should be directed to the hospital administration service at the nearest VA medical center or information on enrolling for VA health care may be obtained by calling toll-free: **1-877-222-8387**. 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. VA facilities are also listed at [www.va.gov](http://www.va.gov)

The national toll-free telephone number for information regarding VA benefits is **1-800-827-1000**. The toll-free helpline for Agent Orange concerns is **1-800-749-8387**.

of the NAS report, VA officials learned that there could be a problem with one of the studies -- an Australian

research effort -- that the IOM and VA conclusion was based on. The mistake was confirmed on May 16, 2001, and the Australians issued a revision and apology.

As a result of this announcement, VA asked NAS to conduct a reassessment of the relationship between exposure to herbicides by Vietnam veterans and AML in their children before VA took additional action on the AML matter. The special report by IOM was released on February 27, 2002. (Note: A similar process was employed when concerns were expressed about diabetes and Agent Orange in 1999. IOM produced a special report that focused on diabetes, which led to the recognition of Type 2 diabetes for Vietnam veterans seeking service connection.)

A NAS committee was convened for this special AML review. The committee conducted a public workshop on October 18, 2001, to hear current researchers in the field present information on their ongoing investigations and to review relevant material. The *Update 2000* committee primarily based its findings on three studies. The revised Australian analysis found that while AML incidence was somewhat elevated, it was within the range that might be expected in the community. (The authors had previously reported that the children of Australian Vietnam veterans were at a significantly greater risk of AML than the general population.)

A second study of U.S. veterans found that paternal self-reported service in Vietnam or Cambodia was associated with an elevated risk of AML in children after adjusting for some potentially confounding lifestyle and sociodemographic factors. The third study found that occupational use of pesticides by either parent, as reported in detailed interviews, was associated with an elevated risk. However, it was not possible to determine whether exposure uniquely prior to the pregnancy was associated with increased risk of AML in the children. This is an important consideration because the wartime exposure of male veterans would have occurred prior to conception. For female veterans, it could have occurred during early pregnancy.

### Two Additional Studies Reviewed

In addition to these studies, the AML committee evaluated two other research efforts not previously reviewed for the *Veterans and Agent Orange* series: a paper on cancer morbidity in the children of agricultural workers in Norway, and an unpublished extension of an interview study of childhood cancers in Germany. Unfortunately, these reports provided little additional information due to the relatively small number of exposed cases and the lack of exposure data to specific substances. The German study did have a general measure of paternal exposure prior to conception and found no association.

Based on the NAS findings contained in their February 2002 report, and other relevant information, there is no

reason to move forward with legislation on behalf of Vietnam veterans' children with AML, which was planned following release of *Update 2000*.

Copies of the AML report, as well as earlier *Veterans and Agent Orange* books are available from the National Academy Press, 2101 Constitution Avenue, N.W., Box 285, Washington, DC 20055. The telephone numbers are 800-624-6242 and 202-334-3313. Additional information and copies of some of the reports are on the National Academy Press home page [www.nap.edu](http://www.nap.edu). Readers can learn more about the IOM on the IOM's home page [www.iom.edu](http://www.iom.edu).

NAS is a private, nonprofit society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. Upon the authority of the charter granted to it by Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Bruce M. Alberts is president of NAS.

In 1970, NAS established IOM to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to public health. IOM operates under the responsibility given to NAS by its charter to be an adviser to the federal government and, upon its own initiative, to identify issues of medical care, research, and education. Dr. Kenneth I. Shine is the current IOM president.

Dr. David A. Butler, a senior project officer at IOM's Division of Health Promotion and Disease Prevention served as Study Director, for the AML project. He played the same role for *Update 1996*, *Update 1998*, *Update 2000* as well as other environmental health and risk assessment projects for the National Academies.

### More About Childhood Leukemia

Acute myelogenous leukemia (AML) is a cancer of the bone marrow cells that form two types of white blood cells called granulocytes and monocytes. This condition is also known as acute myeloid leukemia and acute nonlymphocytic leukemia.

According to the American Cancer Society, about 8,600 children under the age of 15 years were diagnosed with cancers within the U.S. in 2001. Leukemias, which are cancers of the white blood cells, are the most common of these cancers. They account for about one-third of all childhood cancers. Most of these cases are acute lymphocytic leukemia; about 700 cases are AML. Another form of leukemia called chronic leukemia is very rare in children.

AML has been estimated to be the seventh most common childhood cancer. The highest rates of incidence are found in those 2 years of age (about 12 cases per

million). This rate decreases to about 4 cases per million by age 9. After this age the incidence rises to 9 cases per million at the age of 16.

Leukemias in younger children are believed to have a different cause from those of older children because the genetic abnormalities underlying them are more likely to have been present at birth. Incidence rates through age 19 are similar in males and females, and in whites and African Americans.

The source of the information in the above article is the IOM report, *Veterans and Agent Orange: Herbicide/Dioxin Exposure and Acute Myelogenous Leukemia in the Children of Vietnam Veterans*, described above.

## VA Action on IOM Reports - A Brief History

As described in Public Law 102-4, the Agent Orange Act of 1991, VA has given great weight to IOM conclusions. All of the health conditions associated with Agent Orange exposure categorized by IOM as “sufficient evidence of an association” or “limited/suggestive evidence of an association” have been recognized by VA for service-connection, albeit, not always immediately.

On July 23, 1993 -- the day the first IOM report, *Veterans and Agent Orange: Health Effects of Herbicides Used in Vietnam*, was released -- Secretary Brown announced that VA would recognize Hodgkin’s disease and porphyria cutanea tarda for service connection, in addition to soft tissue sarcoma, chloracne, and non-Hodgkin’s lymphoma already recognized by VA.

Two months later, he announced that multiple myeloma and respiratory cancers would also be added to the list of conditions presumed to be service connected based on exposure to a herbicide containing dioxin. VA did not, at first, recognize prostate cancer, although it had been classified in the “limited/suggestive evidence of an association” category by IOM.

In 1996, two months following release of the first IOM update, President Clinton and Secretary Brown announced recognition of acute and subacute transient peripheral neuropathy, which the IOM had elevated to its Category 2, and prostate cancer, for which there was additional evidence of an association. VA also asked and received authority from Congress to provide benefits and services for Vietnam veterans’ children born with spina bifida. Update 1998 provided no significant changes in the top two categories.

In 2000 in a special report requested by VA, IOM found that there is “limited/suggestive evidence of an association” between exposure to herbicides used in Vietnam and Type 2 diabetes. VA promptly recognized that condition in Vietnam veterans. *Update 2000*, like

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*Update 1998*, had no changes (except reaffirming the diabetes conclusion) in the top two categories for Vietnam veterans but did have a finding about AML in their children. For more information about VA action and AML, see the articles above.

## Revised Agent Orange Web Page Launched

In February 2002, the Department of Veterans Affairs’ Environmental Agents service announced several enhanced web sites, including one devoted to Agent Orange issues: [www.va.gov/agentorange/](http://www.va.gov/agentorange/).

The others are [www.va.gov/environmentalagents/](http://www.va.gov/environmentalagents/) for general information regarding the health consequences of exposure to environmental agents; [www.va.gov/gulfwar/](http://www.va.gov/gulfwar/) for concerns about Gulf War veterans’ health problems; and [www.va.gov/irad/](http://www.va.gov/irad/) for issues that relate to veterans exposed to ionizing radiation during military service in the occupation of Japan at the conclusion of World War II or during the nuclear weapons tests program.

## Q’s & A’s

The Q’s and A’s (Questions and Answers) feature of the “Review” responds to questions and concerns that have been received from various sources. Questions for future issues should be sent to Mr. Donald J. Rosenblum, Deputy Director, Environmental Agents Service (131), VA Central Office, 810 Vermont Avenue, N.W., Washington, DC 20420. We cannot guarantee that all questions will be used in this column, but we will respond to as many as we can.

**Q.** WMTD from Charleston, SC, noted that the Agent Orange Registry recently expanded to include individuals who may have been exposed to Agent Orange or other herbicides during military service outside of Vietnam. She asked, Do the same dates restrictions apply, that is, is it just the location that changed?

**A.** The veteran could have served in the military in the USA, Europe, Asia, etc. As long as he/she is concerned about the possible health consequences of herbicide exposure and feels that he/she was exposed to Agent Orange or other herbicides while involved in the testing, transporting, or spraying herbicides during military service, he/she is eligible for the Registry examination. (However, veterans exposed to herbicides outside Vietnam do not have the same special eligibilities for compensation as Vietnam veterans.)

**Q.** RO from Durham, NC, wrote: I have a question about patient billing and diabetes in Vietnam veterans. Very simply, should a non-service connected Vietnam veteran with Type 2 diabetes be charged a co-pay for his/her diabetic care, or would the veteran be required to have a formal VA disability to avoid the co-pay? I've been under the impression that presumptively exposed veterans are entitled to free VA medical care for presumptive diseases, regardless of service-connected status.

**A.** Nancy L. Howard, RHIA, Director, Policy and Procedures Service, Veterans Health Administration Revenue Office, VA Central Office, Washington, DC responded: As with any condition related to a veteran's exposure or experience, the health care provider needs to document that the condition being treated is related to his/her exposure/experience. There is a question on the encounter form that should be marked "yes/no" as to the condition being treated is related to exposure/experience. If this question is not marked or is marked "no," the veteran will be charged applicable co-payments. If the question is marked "yes," the applicable co-payments are not generated. The health care provider should also document this in the patient's medical record. There is no other automatic way to prevent co-payment billing when the veteran is non-service connected and is receiving treatment for conditions related to his/her exposure/experience.

**Q.** The following was sent in by JR in Lexington, KY: During an Agent Orange physical the veteran stated his wife has experienced 6 miscarriages (they have one "normal" child) and he (the veteran) would like to have this investigated. The veteran feels these miscarriages are related to his exposure to Agent Orange. We are unsure of what to do or tell him.

**A.** Three members of the Office of Public Health and Environmental Hazards offered the following comments/suggestions. They all sympathized with the couple.

(1) When thinking about what health effects may be associated with exposure to Agent Orange, we rely upon

the National Academy of Sciences' reports, *Veterans and Agent Orange*. The National Academy of Sciences conducts regular, full and complete of all the scientific and medical literature on Agent Orange health effects. In their latest report, they conclude that there is "inadequate or insufficient evidence to determine whether an association exists" between exposure to herbicides and spontaneous abortion. We don't know what causes most miscarriages, and it is very unlikely that any investigation of this case now could show that the Agent Orange exposure of the father led to the miscarriages experienced by his spouse. I suggest that the couple talk to a physician about their situation - perhaps there are some other medical issues going on that they could be helped with.

(2) It is my understanding that unless the wife is also a veteran, she would have to be evaluated at her own expense outside the VA system. If it is recommended that *he* have some additional tests, they could be performed through VA.

(3) If he (the veteran) wants answers as to why this (the miscarriages) happened, her (the wife's) OB/GYN provider would have to be the place to start. There are so many causes of chronic miscarriages. Genetic counseling is often a part of the investigation although sometimes the problem is purely anatomical. There is no scientific reason at the present time to connect chronic miscarriages to the father's exposure to Agent Orange. I don't see how we could justify an investigation based on the lack of scientific evidence linking chronic miscarriages to paternal exposure to Agent Orange.

## **IOM Continues Work on Agent Orange Update 2002**

The National Academy of Sciences Institute of Medicine has reported that they are making good progress on Update 2002, the fourth in a series of biennial updates of *Veterans and Agent Orange: Health Effects of Herbicides Used in Vietnam*, required by Public Law 102-4, the Agent Orange Act of 1991.

Because some of the IOM Committee members and staff working on *Update 2002* also were involved in the preparation of the special report on acute myelogenous leukemia in the children of Vietnam veterans, they were unable to complete the biennial review in the first part of this year. Nevertheless, they anticipate completion of *Update 2002* by the end of 2002 or shortly thereafter.

## **Some Vietnam-Era Veterans Involved in Project SHAD Tests**

*The following article about Project SHAD is unrelated to Agent Orange and other herbicides used in Vietnam. Nevertheless, we have made a commitment to share this important information with Vietnam-era veterans. This publication is widely distributed to that audience.*

Project Shipboard Hazard and Defense (SHAD) refers to a series of tests, conducted by the Department of Defense (DoD) in the 1960's, to evaluate the effectiveness of shipboard detection and protective procedures against chemical and biological warfare agents.

The tests were originally classified and much of the information concerning the tests will remain classified. The exact number of Project SHAD tests is unknown. The DoD is collecting and reviewing documentation for each test that they can identify to locate and declassify the relevant information needed for medical evaluation. The DoD has substantially declassified and released information on some of the tests.

Based on information available to the Department of Veterans Affairs (VA), we understand these tests involved possible exposures to: the chemical warfare agents sarin and VX; the bacteria *Bacillus globigii*, *Coxiella burnetii*, and *Pasteurella tularensis*; tracer material zinc cadmium sulfide; the decontaminant beta-propiolactone; and other substances. Laboratory animals were exposed on ships to these agents during experiments, but it is possible that some U.S. service members on board may also have been exposed.

### **Health Care and Compensation**

VA medical centers will provide medical evaluations to eligible veterans enrolled in VA health care who may have been exposed to chemical warfare agents, biological warfare agents, or other hazardous substances while participating in Project SHAD or other similar tests and who request such evaluation. Because there are no specific diagnostic tests available, the evaluation consists of a thorough military and medical history along with a basic medical examination, including appropriate laboratory tests that relate to the veteran's complaints and medical findings. Additional specialized tests and consultations are ordered when clinically indicated.

The examination does **not** constitute a claim for disability compensation. Any veteran involved in Project SHAD who believes that one or more of his/her disabilities may have resulted from exposure during testing may wish to file a claim for compensation from VA. For information and assistance, contact a veterans services representative at the nearest VA regional office. The national toll-free telephone number is **1-800-827-1000**. Veterans can apply for disability compensation on-line at <http://vabenefits.vba.va.gov/vonapp>. For additional information on SHAD, see our SHAD Websites at [www.va.gov/shad](http://www.va.gov/shad). For information and assistance by email contact [SHADHELPLINE@vba.va.gov](mailto:SHADHELPLINE@vba.va.gov).

## **Birth Defects in the Children of Male Vietnam Veterans**

*The following article was prepared by Dr. Neil S. Otchin, Program Chief for Clinical Affairs, Office of Public Health and Environmental Hazards, Department of Veterans Affairs, in response to a comment received about the proposed regulations, described above, on behalf of women Vietnam veterans children with certain birth defects.*

A continuing concern to Vietnam veterans, including men who served in Vietnam, is that exposure to herbicides may have caused or contributed to the risk of having children with birth defects.

According to the National Academy of Sciences (NAS), major birth defects occur in about 2 to 3 percent of live births and an additional 5 percent can be detected during the first year of life. The cause of most birth defects is not known, but a number of factors have been implicated in some birth defects, including genetics, medications, and other exposures. While research has focused on maternal and fetal exposures, the possible role of paternal exposures is receiving increasing attention.

In its initial report, *Veterans and Agent Orange*, published in 1994, the NAS found "inadequate/insufficient" evidence to determine whether an association existed between exposure to herbicides used in Vietnam or the contaminant dioxin and birth defects in children of Vietnam veterans.

In its subsequent report, *Veterans and Agent Orange: Update 1996*, the NAS concluded that there was "limited/suggestive" evidence for an association between such exposure and the development of one birth defect, spina bifida. This suggestive association was based on three epidemiological studies, the Center for Disease Control (CDC) Birth Defects Study, the CDC Vietnam Experience Study, and the Ranch Hand Study of Air Force personnel involved in spraying herbicides in Vietnam. These studies focused on paternal exposure. The NAS concluded that there was insufficient evidence to determine whether or not an association existed between herbicide exposure and all other birth defects.

In its report *Veterans and Agent Orange: Update 1998*, the NAS again concluded that there was "limited/suggestive" evidence of an association between exposure to the herbicides considered and spina bifida but "inadequate/insufficient" evidence to determine whether an association existed between such exposure and other birth defects.

In its report *Veterans and Agent Orange: Update 2000*, the NAS continued to conclude that the available scientific literature provided "limited/suggestive" evidence between

exposure to the herbicides considered and the contaminant dioxin and spina bifida in offspring. An Australian Validation Study was cited as providing further support for this conclusion. However, the information was not strong enough to reclassify the outcome into the category of “sufficient evidence” because of study limitations.

The NAS again concluded that there was “inadequate/insufficient” evidence to determine whether or not an association exists between herbicide exposure and birth defects other than spina bifida.

The NAS will continue to review the scientific literature relating to Agent Orange and herbicide exposure, including studies relating to birth defects, and provide reports periodically to VA.

### **Health Conditions Recognized as Service-Connected for Vietnam Veterans Based on Exposure to Agent Orange or Other Herbicides**

1. Chloracne (must occur within 1 year of exposure to Agent Orange)
2. Non-Hodgkin’s lymphoma
3. Soft tissue sarcoma (other than osteosarcoma, chondrosarcoma, Kaposi’s sarcoma, or mesothelioma)
4. Hodgkin’s disease
5. Porphyria cutanea tarda (must occur within 1 year of exposure)
6. Multiple myeloma
7. Respiratory cancers, including cancers of the lung, larynx, trachea, and bronchus
8. Prostate cancer
9. Acute and subacute transient peripheral neuropathy (Must appear within 1 year of exposure and resolve within 2 years of date of onset)
10. Type 2 diabetes

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### **Conditions Recognized in Children of Vietnam Veterans**

1. Spina bifida (except spina bifida occulta)
2. Other birth defects in the children of women Vietnam veterans (Pending; Proposed rules published in *Federal Register* on January 2, 2002; final regulations should be published soon)



## Where to Get Help?

**Vietnam veterans with questions or concerns about Agent Orange** - contact VA's *Gulf War/Agent Orange Helpline*. The national toll-free telephone number is **800-749-8387**. A great deal of information is also available on our new Web page. It is located at <http://www.va.gov/agentorange>.

**Vietnam veterans (plus veterans who served in Korea in 1968 or 1969), and other veterans who may have been exposed to Agent Orange or other herbicides elsewhere during the testing, transporting or spraying of herbicides for military purposes and who are concerned** about possible long-term health effects of Agent Orange exposure - contact the nearest VA medical center and request an Agent Orange Registry health examination. More than 300,000 Vietnam veterans have already participated in this program.

**Vietnam veterans who need medical treatment** for conditions that may be related to their exposure to Agent Orange or other herbicides used in Vietnam - contact the nearest VA medical center for eligibility information and possible medical treatment or call the following toll-free telephone number for information about eligibility and enrollment: **1-877-222-8387**.

**Vietnam veterans with illnesses that they believe were incurred or aggravated by** exposure to Agent Orange or other aspects of military service - contact a VA veterans services representative at the nearest VA

regional office or health care facility and apply for disability compensation. The counselors have information about the wide range of benefit programs administered by VA. The national toll-free number is **1-800-827-1000**.

**Vietnam veterans who encounter difficulties** at a VA medical center - contact the "patient advocate" or "patient representative" at that facility for assistance in resolving the problem. Ask the medical center telephone operator for the patient advocate or representative.

Vietnam veterans with children who have **spina bifida** - contact the VA national toll-free hotline at 1-888-820-1756, or the nearest VA regional office by calling toll-free: 1-800-827-1000. Additional information on spina bifida is available from the Spina Bifida Association of America at 4590 MacArthur Blvd., Suite 250, Washington, DC 20007-4226; toll free telephone: 800-621-3141; e-mail address: [spinabifida@aol.com](mailto:spinabifida@aol.com); and web site: [www.sbaa.org](http://www.sbaa.org).

Representatives of **veterans service organizations**, including The American Legion (1-800-433-3318), Paralyzed Veterans of America (1-800-424-8200), Veterans of Foreign Wars of the United States (1-800-VFW-1899), Disabled American Veterans (1-877-426-2838), Vietnam Veterans of America (1-800-882-1316), etc., have also been very helpful to Vietnam veterans seeking disability compensation.

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