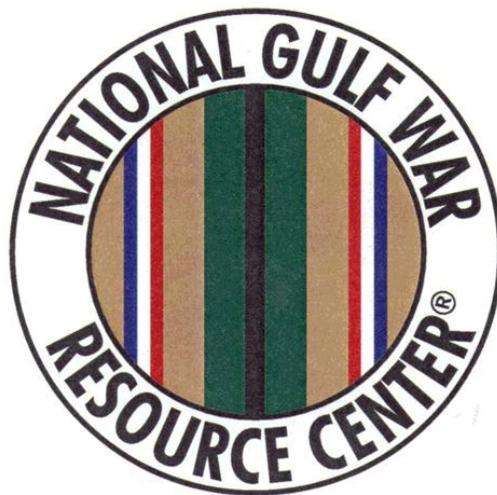

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NGWRC Guide to Today's Toxic Wars



*Information and Support for those
involved in and transformed by today's wars.*

Last Updated July 2010

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Chapter 1 Introduction

Thank you for your interest in the 9th edition of the National Gulf War Resource Center's (NGWRC) 'Guide to Today's Toxic Wars.' If you are an ill veteran, family member or friend of such a person, you should find this *Guide* highly useful in understanding the research and legislative developments and how to get help and support. We distributed over 80,000 copies of our last edition of the *Guide*, and by now there have been more than 350,000 visits to our website to view the *Guide*. Free copies are available for download providing assistance to veterans. Please visit our website, www.ngwrc.org, for constant updates regarding important developments in research and benefits. The term, Gulf War Veterans, means anyone who has ever served in Southwest Asia during Operations, Desert Storm, Iraqi Freedom and Enduring Freedom. We work with veterans who have served since 1989 until today no matter the Area of Operation (AO).

As you read this guide we recommend that you highlight the different symptoms you have. Next to each list the start date, how often and how bad. Have your loved one keep a note book on you. Chapter one and two are the ones you will need to do this with. Do not worry about the Fibro in chapter two; stay with CFS. Fibro will top out at a rating of 40% and CFS will top out at 100%.

After completing this part you will need to take this information with you to your next doctor appointment. This information will open up dialogue between veterans and their doctors. This information will become a part of your medical and C file.

I. The NGWRC Mission and Background

a. Who we are.

Veterans and non-veterans who care about veterans run the National Gulf War Resource Center. What makes us different than some of the larger, more well funded organizations is our flexibility and commitment to speaking out about all issues in the interest of today's veterans. With ongoing conflicts in Iraq and Afghanistan, our board of directors holds monthly meetings and is able to respond swiftly to breaking news, research, and legal developments. With an adaptable organizational structure, and a dedicated staff and board, the NGWRC accomplished more on our small budget than many of the largest veterans' advocacy organizations with far greater resources.

A positive, proactive attitude is essential in forming any new organization and must be carried forward during your Member Group operations. Member Group organizers must be prepared to lead, work as a team, and be eager to learn and share. This combination of "can do" attitude and teamwork displayed by the U.S. Armed Forces around the world has contributed to our country's well-being. The same approach is needed now to pursue the rightful recognition and compensation for veterans' services and sacrifices made on today's battlefields.

b. Mission Statement

The mission of NGWRC is to provide education, advocacy and support for veterans suffering from complexities of modern warfare. The National Gulf War Resource Center is a coalition of advocates and organizations providing a resource of information, support, and referrals for all those concerned with the complexities of service in Southwest Asia (SWA) that comprise of Veterans from Operations Desert Storm (ODS), Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). Especially troubling are the symptoms involving multiple body systems, which have been generically termed, Gulf War Illness or multi-symptom illness, traumatic brain injury (TBI) and PTSD.

c. NGWRC Core Values: (not necessarily in order of importance):

1. Advocate tirelessly for veterans from SWA issues -
We will promote media awareness and Congressional investigations to ensure that Department of Veterans Affairs (VA) Gulf War review efforts are comprehensive, correct and supportive of the SWA veteran.
2. Provide educational material and assistance to SWA Veterans and their families -
We are committed to helping veterans improve their chances of receiving over due compensation for their service-connected illnesses. A key component of that commitment is producing and updating a Self Help Guide that covers important topics such as medical research and legislative developments, organizations that support veterans of SWA, lessons learned, and assistance available from federal agencies such as the Department of Veteran's Affairs.
3. Educate VA, legislators and medical facilities on the complexities of Gulf War Illnesses -
We serve the veteran by informing legislators of provisions needed to protect, treat and compensate SWA Veterans, and we educate medical providers on the wide variety of symptoms and illnesses faced by SWA veterans.
4. Create a diverse, dynamic organization membership dedicated to vital veteran issues -
Gulf War Illness issues affect veteran, scientific, legal, family, and other constituents, as well as current and future service members. To ensure adequate involvement and to prevent repetition of past mistakes, NGWRC solicits from all interested communities and constantly updates its website with relevant and useful information.
5. Review and analyze all relevant government and industry actions, policies, research efforts, and writings concerning Gulf War Era and future veteran's issues -
We are committed to being a leader in understanding the complexities of

Gulf War Illnesses by evaluating new concepts in treatment through collaborations with and our organizational presence at the Department of Veterans Affairs Research Advisory Committee meetings. We will continue to create and implement progressive policies that maximize results for the veterans, increase public understanding, help create clear understanding of illness issues, and ensure the protection of future veterans.

6. Furthering comradeship amongst those who are or have been members of the Armed Forces of the United States.

The NGWRC has done much to bring Gulf War issues before Congress and the media, exposing Pentagon and VA policies that have severely impacted veterans and their families. Our most valuable efforts have resulted in legislation that required research and service-connected disabilities for certain conditions associated with Gulf War service. NGWRC does this with the grants and donation we receive from individual and foundations.

WE do not get any government funding.

II. Summary of Updated Material

Both the VA and DoD now recognize that veterans are ill from their service in Southwest Asia. The health problems exceed those seen in comparable populations. Studies have shown that it is not caused by stress or psychiatric disorders.

Different epidemiological studies consistently show 25-33% of the veterans who served in operation desert storm (ODS/S) are ill. It is increasingly evident that at least one important category of illness in these veterans is neurological in character. There is enough evidence at present to conclude that this line of inquiry represents a potential breakthrough that is aggressively being pursued. In 2004 some OIF veterans fell ill due to Sarin nerve gas. They have all of the same systems as many, but not all ODS/S veterans. (DOD report to the June 2010 RAC)

From the Research and Advisory Committee on gulf war illness November 2008 report:

Evidence strongly and consistently indicates that two Gulf War neurotoxic exposures are causally associated with Gulf War illness: 1) use of pyridostigmine bromide (PB) pills, given to protect troops from effects of nerve agents, and 2) pesticide use during deployment. Evidence includes the consistent association of Gulf War illness with PB and pesticides across studies of Gulf War veterans, identified dose-response effects, and research findings in other populations and in animal models.

For several Gulf War exposures, an association with Gulf War illness cannot be ruled out. These include low-level exposure to nerve agents, close proximity to oil well fires, receipt of multiple vaccines, and effects of combinations of Gulf War exposures. There is some evidence supporting a possible association between these exposures and Gulf War illness, but that evidence is inconsistent or limited in important ways.

The VA has sent a message to its researchers that Gulf War Illness is an area ripe for important discoveries. That there is honor in this work not only to improve the health of veterans of the Gulf War, but to protect American troops and civilians in the future. The

message to veterans is that science is finally beginning to unravel the mysteries of Gulf War Illnesses. That the VA will not look at stress as a cause and look for treatment. The NGWRC is committed to pushing for and following new science, medical breakthroughs, and new treatments.

III. The History of the Gulf War Illness Act.

a. On November 2, 1994, Congress enacted the “Persian Gulf War Veterans’ Benefits Act,” Title I of the “Veterans’ Benefits Improvements Act of 1994,” Public Law (PL) 103-446.

The statute added a new section, [38 U.S.C. 1117](#), authorizing the Department of Veterans Affairs (VA) to compensate any Gulf War (GW) veteran suffering from a chronic disability resulting from an undiagnosed illness or combination of undiagnosed illnesses which manifested either

- during active duty in the Southwest Asia theater of operations during the GW,
- or to a degree of 10 percent more within a presumptive period following service in the Southwest Asia theater of operations during the GW

b. The “Persian Gulf War Veterans’ Act of 1998,” PL 105-277, authorized VA to compensate GW veterans for diagnosed or undiagnosed disabilities that are determined by VA regulation to warrant a presumption of service connection based on a positive association with exposure to one of the following as a result of GW service:

- a toxic agent
- an environmental or wartime hazard, or
- a preventive medication or vaccine

Note: This statute added [38 U.S.C. 1118](#).

c. The “Veterans Education and Benefits Expansion Act of 2001,” PL 107-103, expanded the definition of “qualifying chronic disability” under [38 U.S.C. 1117](#) to include, effective March 1, 2002, not only a disability resulting from an undiagnosed illness but also

- a medically unexplained chronic multi-symptom illness that is defined by a cluster of signs and symptoms, and
- any diagnosed illness that is determined by VA regulation to warrant presumption of service connection

[38 CFR 3.317](#), which implements [38 U.S.C. 1117](#), defines GW service and “qualifying chronic disability,” and provides

- a broad, but non-exclusive, list of signs and symptoms which may be representative of undiagnosed or chronic, multi-symptom illnesses for which compensation may be paid,

- and the presumptive period for service connection

Qualifying chronic disability, under [38 CFR 3.317](#), means a chronic disability resulting from any of the following or any combination of the following:

- an undiagnosed illness
- a medically unexplained chronic multi-symptom illness, such as chronic fatigue syndrome, fibromyalgia, and irritable bowel syndrome, that is defined by a cluster of signs or symptoms, (there are some rule changes that will help the veterans in this area) and/or
- any diagnosed illness that is determined by VA regulation to warrant a presumption of service connection

The presumptive period for manifestation of qualifying chronic disability under [38 CFR 3.317](#)

- begins on the date following last performance of active military, naval, or air service in the Southwest Asia theater of operations during the GW,
- and extends through December 31, 2011 (There is movement to change this)

[38 CFR 3.317](#) specifies the following 13 categories of signs or symptoms that may represent a qualifying chronic disability:

- | | |
|--------------------------------------|---|
| • abnormal weight loss | • neurologic signs or symptoms |
| • cardiovascular signs or symptoms | • neuropsychological signs or symptoms |
| • fatigue | • signs or symptoms involving the skin |
| • gastrointestinal signs or symptoms | • signs or symptoms involving the upper and lower respiratory system, and |
| • headache | • sleep disturbances |
| • joint pain | |
| • menstrual disorders | |
| • muscle pain | |

Notes:

- The list of 13 illness categories is not exclusive.
 - Signs or symptoms not represented by one of the listed categories may also qualify for consideration under [38 CFR 3.317](#).
- A disability that is affirmatively shown to have resulted from a cause other than GW service may not be compensated under [38 CFR 3.317](#).

To qualify, the claimed disability must be chronic, that is, it *must* have persisted for a period of six months or more.

Measure the six-month period of chronicity from the earliest date on which all pertinent evidence establishes that the signs or symptoms of the disability first became manifest.

Note: If a disability is subject to intermittent episodes of improvement and worsening within a six-month period, consider the disability to be chronic.

- d. In July of 2010 a letter was sent to all of the adjudicators with a revisions to 38 C.F.R. § 3.317 to clarify the Meaning of “Medically Unexplained Chronic Multisystem Illness” Related to Gulf War and Southwest Asia Service. VA is revising § 3.317 to clarify that the three listed diagnosed multisymptom illnesses are not exclusive, but rather are examples that can serve to inform VA medical examiners and adjudicators of the general types of medically unexplained chronic multisymptom illnesses that may qualify for service connection under the § 1117 authority. This was one of the changes that was briefed in an RAC meeting by the Department of Veterans Affairs Chief of Staff.

IV. Descriptions of Gulf War Illnesses

In 1992 many veterans of Operation Desert Storm started to have many ill-defined illnesses. These symptoms became known as “Gulf War Illness” in large part that know one could find a cause to the veterans problems and just wrote it off as “being in their head.” By 2001, many studies showed that the problems are real and the veterans are sick for something they was exposed to so the name was changed to “Gulf War Illness”(GWI.) GWI has come to be the appropriate and accepted term to describe a collection of overlapping symptoms resulting from one or more exposures to toxic substances (examined in the “Exposures and Research” section of the Guide). This term replaces the former “Gulf War Syndrome” (still expressed by some) which has implied that stress was the primary cause of Gulf War veterans’ ailments. In recent years, the Veterans Administration in particular has departed from the older connotation as conclusions from non-governmental studies and closer analysis of government reports have overtaken denials of real physical problems. In its November 2008 report the Veterans Administration (VA) Research and Advisory Committee (FAC) on Gulf War Illnesses stated that these conditions are very often neurological, not psychological, in nature. See <http://www1.va.gov/rac-gwvi/> In their April 2010 report to the Department of Veterans Affairs the Institute of Medicine (IOM), changed the name once again from GWI to what it now calls a “multisymptom illness.”

In a quote from the report:

“It is likely that multisymptom illness results from the interactions between environmental exposures and genes, and genetics may predispose some individuals to illness,” the committee noted.

The multiple toxins present in the Gulf War Theater of Operations created considerable confusion among veterans, researchers, and the public, making it difficult to provide a single case definition or effective treatments. See chapter 5.

What is "Gulf War Illnesses"?

This is the terms used to describe symptoms and illnesses reported by individuals who first served in Operations Desert Shield and Desert Storm in Southwest Asia in 1990-91 and then in some veterans from operation Enduring Freedom and Iraqi Freedom. Researchers are considering many possible causes including, but not limited to:

- Oil smoke and petrochemical agents
- Leishmaniasis (Sand flies)
- Pyridostigmine bromide
- Anthrax, botulism
- Infections
- Chemicals
- Pesticides
- Microwaves
- Depleted uranium
- Chemical warfare agents
- Contaminated food

What are some of the symptoms associated with GWI?

Gulf War veterans have commonly reported that they suffer from a wide range of symptoms, including:

Chronic fatigue	Gastrointestinal problems
Skin rash	Chest pain
Headache	Flu-like conditions
Muscle and joint pain	Sinus congestion
Memory loss	Post nasal drip
Difficulty concentrating	Hair loss
Shortness of breath	Dizziness
Sleep disturbances	

Service in Southwest Asia

Military personnel who served in Southwest Asia have had a significantly higher incidence of undiagnosed illnesses than those who were not deployed to the theatre of operations.

Veterans have reported suffering from one or more symptoms that include fatigue, memory loss, difficulty concentrating, rashes and pains in muscles and joints. The symptoms range in severity from barely detectable to completely debilitating. These are some illnesses that are being looked at and are covered in chapter two.

Who is eligible for compensation?

Veterans serving on active military duty in Southwest Asia (SWA) from 2 August 1990 to a date yet to be set, and were assigned to duty in the following areas:

- Iraq
- Kuwait

- Saudi Arabia
- The neutral zone (between Iraq and Saudi Arabia)
- Bahrain
- Qatar
- The United Arab Emirates
- Oman
- Gulf of Aden
- Gulf of Oman
- Waters of the Persian Gulf, Arabian Sea and the Red Sea

V. Researchers

a. Lea Steele

The Kansas Commission on Veterans Affairs completed the first state-sponsored study of Gulf War Illnesses in 2000. The VA's RAC interim report in 2004 conclusions study agreed with the Kansas study; that Gulf War Illnesses is a major health problem for veterans who deployed to the theater. The Kansas study identified six types of symptom groups associated with Gulf War service:

- A. Neurological (memory, headache, mood, dizziness problems)**
- B. Fatigue and sleep disorders**
- C. Pain in joints and muscles**
- D. Gastrointestinal (diarrhea and nausea)**
- E. Respiratory (persistent cough and wheezing)**
- F. Skin (rashes and other problems)**

This random telephone study of Kansas Gulf War veterans, which was published in the November 15, 2000 issues of *The American Journal of Epidemiology*, noted that deployed Gulf-era veterans were two to five times more likely to report having the above symptoms compared to non-deployed veterans. The tendency of deployed veterans to have multiple symptoms (3-6) on a chronic basis was referred to as "Gulf War Illness." The Kansas study also showed difference in symptom severity based on branch of service, time in theater, and specific in-theater locations. Additionally, this research demonstrated that health problems from vaccines existed even in those who did not deploy – important information for later-serving service members.

The Kansas Study has since been done by many other researcher. All of whom came to the same finding.

b. Dr. Robert Haley

Dr. Haley and colleagues at the University of Texas Southwestern have been conducting epidemiologic, clinical and laboratory research on the "Gulf War Syndrome" and related neurological illnesses in Gulf War veterans since March 1994. The work has been supported by a continuing grant from the Perot Foundation until a contract was done with the VA. In 2009 the VA terminated the contract. The objectives of the research are to define new or unique clinical syndromes among Gulf War veterans, determine their causes, identify areas of damage or dysfunction in the brain and nervous system responsible for the symptoms, develop a cost-effective battery of clinical tests that can diagnose the

illness, search for underlying genetic traits that might predispose to the illness, and perform clinical trials of promising treatments.

The initial studies identified three primary syndromes in a Naval Reserve construction battalion (Seabees) that appear to be unique, demonstrated that the syndromes are associated with subtle dysfunction of the brainstem and lower parts of the brain, and found epidemiologic associations between the syndromes and risk factors of exposure to combinations of chemicals in the Gulf War.

Genetic studies have identified a genetic trait (PON1 enzymes) that may explain why some soldiers sustained brain damage from exposure to neurotoxic chemicals while others working alongside them remained well. Most recently, research using magnetic resonance spectroscopy has demonstrated a loss of functioning brain cells in deep brain structures of ill Gulf War veterans. Additional commentaries by Dr. Haley have challenged the government's stress theory of Gulf War syndrome and findings of no difference in morality, hospitalization and birth defects between Gulf War-deployed and nondeployed military populations. Additional research and publications are in process:

VI. Lack of Data

The failure of the Pentagon over the past two decades to be candid with veterans about the number and extent of toxic exposures seriously complicated the ability of various interested parties to understand Gulf War Illnesses. At the request of the NGWRC, the DoD established a hotline for veterans to call with information regarding toxic exposures and incidents. The activities of the Pentagon office that administered the hotline (Office of the Special Assistant for Gulf War Illnesses) have now been incorporated in a much less visible way under the auspices of DoD's Deployment Health Support Directorate.

The first example of Pentagon non-cooperation that exacerbated suffering for veterans and their families was the constant denials, until 1996, of any health risks from widespread exposure to low levels of chemical agents. After initially indicating exposures for a few dozen veterans, estimates were revised upward every few weeks or months until the Pentagon concluded that 140,000 veterans had been exposed to chemical agents. The second major area of missing data concerned the Pentagon's denial, until 1998, that as many as 436,000 troops were exposed to radioactive depleted uranium contamination. The fact that the Pentagon did not keep adequate records of service members receiving investigational new drugs (Botulinum toxoid and anthrax shots, and pyridostigmine bromide tablets) constitutes the third major area of missing data problems. For other exposures such as oil well fires, pesticides, and endemic diseases, the Pentagon failed to record the type, amount, and length of time service members faced these toxicities.

VII. Gulf War Veterans Information System

a. Veterans

Department of Veterans Affairs established the “Gulf War Veterans Information System” (GWVIS) in 1997 to identify and monitor benefit use among Gulf War veterans.

VA’s quarterly GWVIS reports are produced in compliance with the “Veterans Health Care Act of 1992” (Public Law 102-585). The National Gulf War Resource Center supports this law and thanks VA for producing these highly reliable reports.

In 2009 Colonel John R. Gingrich, Chief of Staff Department of Veterans Affairs, reported the numbers under this system were wrong and began working with a new VA taskforce to fix this report and many of the problems that the gulf war veterans have. The report is due out in August of 2010.

Veterans from the United Kingdom, Canada, Australia, the Czech Republic, and other coalition countries also report Gulf War veterans’ illnesses. However, there are no official statistics published by other governments.

b. Civilians

Civilians present during the Gulf War had many of the same exposures as military personnel to chemical, biological and radiation contamination, endemic infectious diseases, and other toxic materials. Civilian participants include journalists, DOD contractors (such as logistics assistants representing the defense industry), Red Cross workers, and Iraqi and Kuwaiti civilians living in the area.

Other civilians possibly exposed include those at or near Coalition or U.S. military bases or contract facilities who cleaned and repaired returned tanks and airplanes, repackaged returned parachutes, sorted, cleaned, repaired and painted returned equipment, and removed clothing and equipment from the evacuated, injured and dead. The government’s response to ill civilians has been very slow. Although some may be eligible for workers’ compensation or Social Security benefits, the evidence needed to show exposure to contaminated personnel or equipment is difficult to provide, and scientific studies relating to civilian participants is still almost non-existent. The NGWRC actively shares information with deployed civilians to obtain answers and medical care, and we continue to press for research into the health problems reported by civilians.

c. Family and Close Living Contacts

A survey of 1,200 ill veterans performed in 1994 by former U.S. Senator Donald Reigle reported that 77% of spouses and 68% of children born after the war were experiencing Gulf War Illness symptoms or birth defects. Other surveys indicated

similar disturbing trends. While these are not scientific studies, these surveys show an incidence of illness among family members of ill veterans.

The Association of Birth Defect Children (ABDC) is conducting a research study on this issue. Those with information regarding a Gulf War veteran's child with birth defects should contact ABDC in Florida at 407-566-8304. <http://www.birthdefects.org/>

A possible source of problems for families and close contacts may have been exposure to the veteran's equipment contaminated during service. Another risk factor may be infectious diseases contracted by the veteran while overseas.

Female spouses of Gulf War veterans have reported a high rate of miscarriages, menstrual difficulties, reproductive problems, and burning semen during intercourse. Several other studies are currently being conducted on birth defect rates and burning semen.

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Chapter 2 Qualifying Chronic Disabilities

It was not long after the law was passed that set up the VA paying veterans for Gulf War Illness, that a loophole was found. The doctors started to say the veterans had a diagnosed illness. These illnesses are of an ill-defined type that half of every problem the veterans had could fall into the definition. In 1998 the NGWRC went about to get the laws changed to add chronic fatigue syndrome, fibromyalgia, and irritable bowel syndrome and other autoimmune disease to fix the problem. With our hard work, the NGWRC was able to get the law changed and in 2001 a new section was added to the CFR that read:

Qualifying chronic disability, under [38 CFR 3.317](#), means a chronic disability resulting from any of the following or any combination of the following:

- an undiagnosed illness
- a medically unexplained chronic multi-symptom illness, such as chronic fatigue syndrome, fibromyalgia, and irritable bowel syndrome, that is defined by a cluster of signs or symptoms, and/or
- any diagnosed illness that is determined by VA regulation to warrant a presumption of service connection.

Later the Secretary of the VA added amyotrophic lateral sclerosis (ALS) and some brain cancers.

Fibromyalgia and Chronic Fatigue Disease Overlapping Symptoms

Fibromyalgia and chronic fatigue syndrome are very similar illnesses. In fact, up to 70% of their symptoms overlap. Overlapping symptoms include:

- [muscle pain](#)
- [fatigue](#)
- [irritable bowel](#) symptoms
- [cognitive dysfunction](#)
- [sleep disorders](#)

Concurrent Disorders

it is possible to suffer from both fibromyalgia and chronic fatigue syndrome at the same time. In fact, between 20% and 30% of fibromyalgia sufferers have chronic fatigue. 35% of chronic fatigue patients also have fibromyalgia. It has been theorized that chronic fatigue syndrome is actually a sub-disorder of the fibromyalgia syndrome.

A. Chronic Fatigue Syndrome (CFS)

Chronic fatigue syndrome, sometimes called CFS, is a condition that makes you feel so tired that you can't do all of your normal, daily activities. There are other symptoms too, but being very tired for at least 6 months is the main one.

Chronic fatigue syndrome (CFS) is an illness characterized by prolonged, debilitating fatigue and a characteristic group of accompanying symptoms, particularly problems with memory and concentration, unrefreshing sleep, muscle and joint pain, headache, and recurrent sore throat. It is marked by a dramatic difference in pre- and post-illness activity level and stamina.

CFS shares various symptoms with many illnesses, including fibromyalgia, lupus, Lyme disease, sleep apnea, narcolepsy, untreated hypothyroidism, chronic hepatitis and depression.

The disease is not well understood. Most experts now believe that it is a separate illness with its own set of symptoms. But some doctors do not believe this.

There are no tests for CFS. Because of this, many people have trouble accepting their disease or getting their friends and family to do so. Having people who believe your diagnosis and support you is very important. Having a doctor you can trust is critical.

Your tiredness is real. It's not "in your head." It is your body's reaction to a combination of emotional and physical factors.

Diagnostic Resources

Several resources have been created to assist health care professionals in diagnosing and managing CFS. Print out these resources for your care giver and your claim. These resources can be accessed below:

- [CFS Toolkit: Fact Sheets for Health Care Professionals](#)
- [Provider Resource Guide](#)
 PDF (2 Pages / 136 KB)

B. What causes CFS?

By Mayo Clinic staff

Of all chronic illnesses, chronic fatigue syndrome is one of the most mysterious. Several possible causes have been proposed, including:

- Depression
- Iron deficiency anemia
- Low blood sugar (hypoglycemia)
- History of allergies

- Virus infection, such as Epstein-Barr virus or human herpesvirus 6
 - Dysfunction in the immune system
 - Changes in the levels of hormones produced in the hypothalamus, pituitary glands or adrenal glands
 - Mild, chronic low blood pressure (hypotension)
 - An autoimmune process causing inflammation of certain nervous-system pathways
 - A viral infection complicated by a dysfunctional immune response
 - A low blood pressure disorder that triggers the fainting reflex
- Symptoms similar to those of chronic fatigue syndrome sometimes have straightforward, correctable causes, such as:
- An active, identifiable medical condition that often results in fatigue
 - Medication side-effects

C. What are the symptoms?

A CFS diagnosis should be considered in patients who present with six months or more of unexplained fatigue accompanied by other characteristic symptoms. These symptoms include:

- cognitive dysfunction, including impaired memory or concentration
- postexertional malaise lasting more than 24 hours (exhaustion and increased symptoms) following physical or mental exercise
- unrefreshing sleep
- joint pain (without redness or swelling)
- persistent muscle pain
- headaches of a new type or severity
- tender cervical or axillary lymph nodes
- sore throat

Other Common Symptoms

In addition to the eight primary defining symptoms of CFS, a number of other symptoms have been reported by some CFS patients. The frequency of occurrence of these symptoms varies among patients. These symptoms include:

- irritable bowel, abdominal pain, nausea, diarrhea or bloating
- chills and night sweats
- brain fog
- chest pain
- shortness of breath
- chronic cough

- visual disturbances (blurring, sensitivity to light, eye pain or dry eyes)
- allergies or sensitivities to foods, alcohol, odors, chemicals, medications or noise
- difficulty maintaining upright position (orthostatic instability, irregular heartbeat, dizziness, balance problems or fainting)
- psychological problems (depression, irritability, mood swings, anxiety, panic attacks)
- jaw pain
- weight loss or gain

Clinicians will need to consider whether such symptoms relate to a comorbid or an exclusionary condition; they should not be considered as part of CFS other than they can contribute to impair functioning.

D. Finding the right doctor

The more you know about chronic fatigue syndrome (CFS or ME/CFS), the better prepared you'll be when trying to find a doctor. It's a difficult process, and you may need to educate a few health-care professionals along the way. Be sure you know the list of symptoms and become familiar with the various ways ME/CFS is treated.

The crux of the problem is that no medical specialty has "claimed" ME/CFS, so finding a knowledgeable doctor isn't as easy as with most illnesses. Even fibromyalgia, which is considered closely related to CFS, falls under the auspices of rheumatology. Chronic fatigue syndrome is not well understood, and many health-care providers have a hard time recognizing it. Some don't even believe it is an actual condition.

This means that the burden of finding someone qualified to treat you falls squarely on your shoulders. However, you have a number of resources to use in your search.

- **Your primary care provider**
If your regular doctor isn't well educated about ME/CFS, see if he or she is either willing to learn or knows of someone who's more knowledgeable.
- **Other care providers**
If you see a physical therapist, massage therapist or chiropractor, ask whom he or she would recommend.
- **Local support groups**
People involved in local support groups likely will be able to recommend qualified doctors. To find a support group in your area, you can check with your doctor, local clinics and hospitals.
- **Advocacy groups**
ME/CFS advocacy group websites may be able to help. Check out this patient-recommended "[good doctor](#)" list from Co-Cure.
- **Friends, family and associates**
Talk to everyone you know to see if they can recommend a doctor, or whether they know someone with ME/CFS who may be able to recommend one. While most

people aren't qualified to say whether a doctor is competent, they can tell you whether he or she is compassionate, patient and willing to go an extra mile for you.

- **Referral services** Check with local clinics and hospitals to see if they have referral services. Also, call your insurance company to see if they have any doctors listed as specializing in ME/CFS.

E. How is CFS diagnosed?

There are no tests for CFS. Doctors can diagnose it only by ruling out other possible causes of your fatigue. Many other health problems can cause fatigue, and most people with fatigue have something other than chronic fatigue syndrome.

F. How is it treated?

There is no treatment for CFS itself, but many of its symptoms can be treated. A good relationship with your doctor is important, because the two of you will need to work together to find a combination of medicines and behavior changes that will help you get better. Some trial and error may be necessary, because no single combination of treatments works for everyone.

Home treatment is very important. You may need to change your daily schedule, learn better sleep habits, and start getting regular gentle exercise.

Counseling and a gradual increase in exercise help people with CFS get better.

Even though it may not be easy, keeping a good attitude really helps. Try not to get caught in a cycle of frustration, anger, and depression. Learning to cope with your symptoms and talking to others who have the same illness can help you keep a good attitude.

II. Irritable Bowel Syndrome (IBS):

A. What is irritable bowel syndrome (IBS)?

Irritable bowel syndrome is a disorder characterized most commonly by cramping, abdominal pain, bloating, constipation, and diarrhea. IBS causes a great deal of discomfort and distress, but it does not permanently harm the intestines and does not lead to a serious disease, such as cancer. Most people can control their symptoms with diet, stress management, and prescribed medications. For some people, however, IBS can be disabling. They may be unable to work, attend social events, or even travel short distances.

As many as 20 percent of the adult population, or one in five Americans, have symptoms of IBS, making it one of the most common disorders diagnosed by doctors. It occurs more often in women than in men, and it begins before the age of 35 in about 50 percent of people.

B. What are the symptoms of IBS?

Abdominal pain, bloating, and discomfort are the main symptoms of IBS. However, symptoms can vary from person to person. Some people have constipation, which means hard, difficult-to-pass, or infrequent bowel movements. Often these people report straining and cramping when trying to have a bowel movement but cannot eliminate any stool, or they are able to eliminate only a small amount. If they are able to have a bowel movement, there may be mucus in it, which is a fluid that moistens and protect passages in the digestive system. Some people with IBS experience diarrhea, which is frequent, loose, watery, stools. People with diarrhea frequently feel an urgent and uncontrollable need to have a bowel movement. Other people with IBS alternate between constipation and diarrhea. Sometimes people find that their symptoms subside for a few months and then return, while others report a constant worsening of symptoms over time.

Symptoms include

- Abdominal pain or discomfort for at least 12 weeks out of the previous 12 months. These 12 weeks do not have to be consecutive.
- The abdominal pain or discomfort has two of the following three features:
 - It is relieved by having a bowel movement.
 - When it starts, there is a change in how often you have a bowel movement.
 - When it starts, there is a change in the form of the stool or the way it looks.
- Certain symptoms must also be present, such as
 - a change in frequency of bowel movements
 - a change in appearance of bowel movements
 - feelings of uncontrollable urgency to have a bowel movement
 - difficulty or inability to pass stool
 - mucus in the stool
 - bloating
- Bleeding, fever, weight loss, and persistent severe pain are not symptoms of IBS and may indicate other problems such as inflammation, or rarely, cancer.

The following have been associated with a worsening of IBS symptoms

- large meals
- bloating from gas in the colon
- medicines
- 1 upsets
- wheat, rye, barley, chocolate, milk products, or alcohol
- drinks with caffeine, such as coffee, tea, or colas
- stress, conflict, or emotional

Researchers have found that women with IBS may have more symptoms during their menstrual periods, suggesting that reproductive hormones can worsen IBS problems.

In addition, people with IBS frequently suffer from depression and anxiety, which can worsen symptoms. Similarly, the symptoms associated with IBS can cause a person to feel depressed and anxious.

C. How is IBS diagnosed?

If you think you have IBS, seeing your doctor is the first step. IBS is generally diagnosed on the basis of a complete medical history that includes a careful description of symptoms and a physical examination.

There is no specific test for IBS, although diagnostic tests may be performed to rule out other problems. These tests may include stool sample testing, blood tests, and x rays. Typically, a doctor will perform a sigmoidoscopy, or colonoscopy, which allows the doctor to look inside the colon. This is done by inserting a small, flexible tube with a camera on the end of it through the anus. The camera then transfers the images of your colon onto a large screen for the doctor to see it.

If your test results are negative, the doctor may diagnose IBS based on your symptoms, including how often you have had abdominal pain or discomfort during the past year, when the pain starts and stops in relation to bowel function, and how your bowel frequency and stool consistency have changed. Many doctors refer to a list of specific symptoms that must be present to make a diagnosis of IBS.

D. How does stress affect IBS?

Stress—feeling mentally or emotionally tense, troubled, angry, or overwhelmed—can stimulate colon spasms in people with IBS. The colon has many nerves that connect it to the brain. Like the heart and the lungs, the colon is partly controlled by the autonomic nervous system, which responds to stress. These nerves control the normal contractions of the colon and cause abdominal discomfort at stressful times. People often experience cramps or “butterflies” when they are nervous or upset. In people with IBS, the colon can be overly responsive to even slight conflict or stress. Stress makes the mind more aware of the sensations that arise in the colon, making the person perceive these sensations as unpleasant.

Some evidence suggests that IBS is affected by the immune system, which fights infection in the body. The immune system is affected by stress. For all these reasons, stress management is an important part of treatment for IBS. Stress management options include

- stress reduction (relaxation) training and relaxation therapies such as meditation
- counseling and support
- regular exercise such as walking or yoga
- changes to the stressful situations in your life
- adequate sleep

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III. Fibromyalgia (FM):

Fibromyalgia is a syndrome predominately characterized by widespread muscular pains and fatigue. The causes of fibromyalgia are unknown; however researchers hypothesize that genetics and physical and emotional stressors are possible contributory factors to the development of the illness. There are difficulties in diagnosing fibromyalgia, since its clinical picture can overlap other illnesses and there are no definitive diagnostic tests. Patient education, pharmacologic agents, and other nonpharmacologic therapies are used to treat fibromyalgia. Exercise has been found to improve outcomes for people with fibromyalgia.

A. Symptoms

[By Mayo Clinic staff](#)

Signs and symptoms of fibromyalgia can vary, depending on the weather, stress, physical activity or even the time of day.

1. Widespread pain and tender points

The pain associated with fibromyalgia is described as a constant dull ache, typically arising from muscles. To be considered widespread, the pain must occur on both sides of your body and above and below your waist.

Fibromyalgia is characterized by additional pain when firm pressure is applied to specific areas of your body, called tender points. Tender point locations include:

- Back of the head
- Between shoulder blades
- Top of shoulders
- Front sides of neck
- Upper chest
- Outer elbows
- Upper hips
- Sides of hips
- Inner knees

2. Fatigue and sleep disturbances

People with fibromyalgia often awaken tired, even though they seem to get plenty of sleep. Experts believe that these people rarely reach the deep restorative stage of sleep. Sleep disorders that have been linked to fibromyalgia include restless legs syndrome and sleep apnea.

3. Co-existing conditions:

Many people who have fibromyalgia also may have:

1. Chronic fatigue syndrome
2. Depression
3. Endometriosis
4. Headaches
5. Irritable bowel syndrome (IBS)
6. Lupus
7. Osteoarthritis
8. Post-traumatic stress disorder
9. Restless legs syndrome
10. Rheumatoid arthritis

B. Test for FM:

The American College of Rheumatology has established two criteria for the diagnosis of fibromyalgia:

- Widespread pain lasting at least three months
- At least 11 positive tender points — out of a total possible of 18

1. Tender points:

During your physical exam, your doctor may check specific places on your body for tenderness. The amount of pressure used during this exam is usually just enough to whiten the doctor's fingernail bed. These 18 tender points are a hallmark for fibromyalgia.

2. Blood tests:

While there is no lab test to confirm a diagnosis of fibromyalgia, your doctor may want to rule out other conditions that may have similar symptoms. Blood tests may include:

- Complete blood count
- Erythrocyte sedimentation rate
- Thyroid function tests

Because many of the signs and symptoms of fibromyalgia are similar to various other disorders, you may see several doctors before receiving a diagnosis. Your family physician may refer you to a rheumatologist, a doctor who specializes in the treatment of arthritis and other inflammatory conditions.

What you can do:

You may want to write a list that includes:

- Detailed descriptions of your symptoms
- Information about medical problems you've had in the past
- Information about the medical problems of your parents or siblings
- All the medications and dietary supplements you take
- Questions you want to ask the doctor

What to expect from your doctor:

In addition to a physical exam, your doctor may check your neurological health by testing you:

- Reflexes
- Muscle strength
- Muscle tone
- Balance
- Senses of touch and sight
- Coordination

C. Associate Conditions of Fibromyalgia

[Fibromyalgia](#) has often been called the "great imitator" because so many of its symptoms mimic those of other disorders. As a result, it can often be difficult to receive a proper diagnosis of fibromyalgia. However, there are subtle differences between many of the illnesses and FMS. Learning more about each of these disorders can help you figure out just how fibromyalgia is distinct from them.

Common disorders that fibromyalgia is often mistaken for include:

- [Lyme disease](#)
- [Lupus](#)
- [Osteoarthritis](#)
- [Rheumatoid arthritis](#)
- [Cushing's syndrome](#)
- [Hypothyroidism](#)
- [Polymyalgia Rheumatica](#)
- [Reflex sympathetic dystrophy syndrome](#)
- [Cervical spinal stenosis](#)

People with fibromyalgia are also at greater risk of developing a number of other disorders, many of which can exacerbate your current fibromyalgia symptoms, or are linked to certain conditions, which may lead to [fertility problems](#). Illnesses, diseases and conditions that fall into this category include:

- [Irritable Bowel Syndrome](#)
- [Osteoporosis](#)
- [Endometriosis](#)
- [Carpal Tunnel Syndrome](#)
- [Sjogren's syndrome](#)
- [Crohn's disease](#)
- [Multiple Sclerosis](#)
- [Raynaud's Phenomenon](#)
- [Chronic Fatigue Syndrome](#)
- [Anemia](#)
- [Morton's Neuroma](#)
- [Seasonal Affective Disorder](#)
- [GERD](#)
- [Interstitial Cystitis](#)
- [Yeast Infections](#)
- [Bruxism](#)
- [Low Cytokine Levels](#)
- [Hypoglycemia](#)

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Fibromyalgia can also affect the way your [body](#) functions. FMS impacts the following systems:

- [Cardiovascular System](#)
- [Nervous System](#)

FMS can also impact your libido, which in turn affects sexual [intimacy](#). Find out why FMS affects your sexual desire and learn about tips to improve sexual intimacy in your relationship in the following section: [Sexuality](#)

IV. Amyotrophic Lateral Sclerosis (ALS):

ALS, or Lou Gehrig's disease, kills cells in the brain and spinal cord that control muscle movement, resulting in gradual wasting of the muscles. Fatal in most cases, the disease usually strikes people between ages 40 and 70. The cause of the disease is unknown.

ALS does not affect the senses (sight, smell, taste, hearing, touch), bladder or bowel function, or a person's ability to think or reason.

Symptoms include:

- Difficulty breathing
- Difficulty swallowing
 - Gagging
 - Chokes easily
- Head drop due to weak spinal and neck muscles
- Muscle cramps
- Muscle weakness that slowly gets worse
 - Commonly involves one part of the body first, such as the arm or hand
 - Eventually leads to difficulty lifting, climbing stairs, and walking
- Paralysis
- Speech problems, such as a slow or abnormal speech pattern
- Voice changes, hoarseness

Additional symptoms that may be associated with this disease:

- Drooling
- Muscle contractions
- Muscle spasms
- Ankle, feet, and leg swelling
- Weight loss

Earlier this year, VA established a national ALS registry to identify veterans with the disease - regardless of when they served -- and track their health status. Veterans with ALS who enroll will complete an initial telephone interview covering their health and military service and will be interviewed twice yearly thereafter.

For more information about VA's ALS Registry, based at the Durham VA Medical Center, call 1-877-DIAL-ALS (1-877-342-5257) or e-mail ALS@med.va.gov

A study just released had the following findings:

Results: We found that service in particular locations of the Gulf was associated with an elevated risk for later developing ALS, both before and after adjustment for branch of service and potential of exposure to chemical warfare agents in and around Khamisiyah, Iraq.

Conclusions: Specific geographic locations of troop units within the 1991 Gulf War theatre are associated with an increased risk for the subsequent development of ALS

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among members of those units. The identified spatial locations represent the logical starting points in the search for potential etiologic factors of ALS among Gulf War veterans. Of note, for locations where the relative odds of subsequently developing ALS are among the highest, specific risk factors, whether environmental or occupationally related, have not been identified. The results of spatial models can be used to subsequently look for risk factors that follow the spatial pattern of elevated risk.

Recently reported research regarding ALS suggests the possibility of a genetic predisposition to motor neuron vulnerability and an apparent increase in the rate of incidence of the disease. This suggests a continuation of toxic exposures in low doses in post-war civilian settings resulting finally in the onset of ALS. Pending ultimate scientific validation of this hypothesis it is very important that Gulf War vets guard against additional casual exposures to threatening chemical compounds, chiefly pesticides.

Where Can I Find More Information on ALS?

The following organizations support research and in some cases can provide information and support for patients and their families.

ALS Association (ALSA)

27001 Agoura Road Suite 150

Calabasas Hills, CA 91301-5104

info@alsa-national.org <http://www.alsa.org>

Tel: 818-880-9007 800-782-4747 Fax: 818-880-9006

Les Turner ALS Foundation

8142 North Lawndale Avenue

Skokie, IL 60076

info@lesturnerals.org <http://www.lesturnerals.org>

Tel: 888-ALS-1107 847-679-3311 Fax: 847-679-9109

Muscular Dystrophy Association

3300 East Sunrise Drive

Tucson, AZ 85718-3208

mda@mdausa.org <http://www.mdausa.org/>

Tel: 520-529-2000 800-572-1717 Fax: 520-529-5300

Project ALS

511 Avenue of the Americas Suite #341

New York, NY 10011

projectals@aol.com <http://www.projectals.org>

Tel: 212-969-0329 800-603-0270 Fax: 212-337-9915

For information on other neurological disorders or research programs funded by the National Institute of Neurological Disorders and Stroke, contact the Institute's Brain Resources and Information Network (BRAIN) at: www.ninds.nih.gov

BRAIN

P.O. Box 5801 Bethesda, Maryland 20824

(800) 352-9424

Chapter 3 WHERE AND HOW TO GET HELP

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I. Research Trials:

A. Past Treatment Trials for Gulf War Illness:

The first study was based on a controversial theory that a microbial infection (mycoplasma) may be at the root of Gulf War veterans symptoms, is an 18-month study involving a trial of doxycycline or a placebo. Patients were considered to have GWI if they have at least two of three symptoms (fatigue, musculoskeletal pain, neurocognitive dysfunction) that began after August 1990 and that have lasted more than six months and up to the present. Patients who tested positive for Mycoplasma fermentors, Mycoplasma Genitalium, and/or Mycoplasma pneumoniae at baseline were eligible to enroll. Patient's assigned doxycycline received 200 mg/day. All patients were provided with a potent sun block preparation for protection from common drug-related photosensitivity.

Findings from the VA antibiotic treatment trial appeared to confirm a high (40%) rate of mycoplasma positivity among ill Gulf War veterans. The study, oddly, defined the primary outcome to be improvement of over a threshold amount on a specific metric, after completion of the treatment period, rather than just assessing whether a significant difference was present. . There was strongly significant benefit at the 3-month treatment point in the antibiotic treatment group; however benefit lost significance on further follow-up. Additionally, despite a 40% mycoplasma positivity rate in Gulf War veterans at outset, in both antibiotic treatment and placebo groups the overwhelming majority tested mycoplasma negative at study conclusion, a finding that is difficult to understand.

(Even under the conservative assumptions that these Gulf War veterans who tested positive at outset were no more likely than others to become infected, and supposing that mycoplasma recovery and re-infection occur randomly in Gulf War veterans so that only 40% are infected at a given time (but not the same 40%), it would still be expected that 40% of those who received placebo would test positive at study conclusion. This was not the case.)

<http://www.gulflink.osd.mil/medsearch/Treatment/VA55.shtml>

The second study primarily funded by DoD, involved exercise and behavior modification using adaptive behavioral techniques. Cognitive behavioral therapy and exercising seem to provide

some relief from the symptoms of Gulf War veterans' illnesses. The results of a new study, the first large-scale, multi-centre trial to compare cognitive behavioral therapy (CBT) and exercise in these veterans, appear in the March 19 issue of the Journal of the American Medical Association. There has also been some controversy among veterans over the use of psychosocial treatments such as cognitive behavior therapy in treating GWVI. The scientific evidence suggests that stress and psychiatric illness cannot account for GWVI. Still, cognitive behavioral therapy has been shown to help with other chronic, multi-symptom illnesses such as fibromyalgia and chronic fatigue syndrome. And because there appears to be similarities between GWVI and chronic fatigue syndrome and fibromyalgia, Dr. Ncloa Wray decided to approve a study on the subject.

In the study, 1992 Gulf War veterans who reported having at least two of three symptoms (fatigue, pain and cognitive symptoms) for more than six months were randomly assigned to one of four groups: usual care; usual care plus cognitive behavioral therapy; usual care plus individual aerobic exercise training; and usual care plus cognitive behavioral therapy and aerobic exercise. The study has given the Department of Veterans Affairs enough justification to start implementing similar programs at VA centers around the country. Some 200 physicians in the VA system specialize in Gulf War Veterans' illnesses. Psychologists and psychiatrists who are trained in CBT are already employed by the system. The VA is hopeful the program being adopted will have more success and will treat a broader spectrum of individuals. The study participants tended to be very ill; many more veterans suffer from milder symptoms. Others feel that the benefits will be limited. Cognitive behavioral therapy and aerobic exercise provide only modest relief from symptoms of Gulf War veterans' illnesses. Unfortunately, over 80% of the patients showed no improvement of symptoms after 1 year of either or both treatments.

B. Current Treatment Trials

Currently as of July 2010 the efforts have focused on finding treatment modalities for Gulf War Veterans suffering from Gulf War illness. There has been efforts through the VA and the DOD Congressional Mandated Medical Research Program to run research using small treatment trials to find potential treatment. You can find the list of the current research programs descriptions and contact points to enroll in these studies on our website.

We encourage gulf war veterans all veterans to take a part in these studies. Researchers need both sick and healthy vets. Contact the researchers and consider enrolling in these studies to help all gulf war veterans with gulf war illness to find treatment that is effective and that can then be adopted into clinical practice throughout the VA system and information shared with civilian health professionals that are caring for gulf war veterans.

These research studies are being expanded yearly based on available funding both from VA and the congressional process. Please ask your elected Senators and Representatives to support this annual process for funding the DOD CDMRP Gulf War Illness Research.

II. Active duty military

Active duty military personnel with questions or concerns about their service in the Persian Gulf region - contact your commanding officer or call the Department of Defense (DoD) deployment health' Hotline located at Walter Reed Army Medical Center, DC (1-800-796-9699).

The Army Wounded Soldier and Family Hotline 1 (800) 984-8523

The Army Wounded Soldier and Family Hotline provides wounded and injured Soldiers and their family members another way to resolve medical issues. The hotline provides an information channel for Soldiers' medical-related issues to go directly to senior Army leadership and is staffed 24 hours a day, 7 days a week.

The Defense Department's Vaccine Healthcare Centers can help individuals or health care providers with expert advice on adverse reactions via a secure e-mail consultation system at <https://askvhc.wramc.amedd.army.mil> or by calling toll-free (866) 210-6469.

Other Official Military Medical Web Links and information:

Traumatic Brain Injury Information:
<http://www.dvbic.org/>

DVBIC Headquarters
Defense and Veterans Brain Injury Center

Building 1, Room B209
Walter Reed Army Medical Center
6900 Georgia Avenue, NW
Washington, DC 20307-5001

1.800.870.9244 202.782.6345 (phone) 202.782.4400 (fax)
662.6345 (DSN)

http://www.health.mil/Research/TBI_Numbers.aspx

Warrior Care News for OIF/OEF

<http://www.army.mil/warriorcarenews/>

Defense Centers of Excellence for Psychological and Traumatic Brain Injury:

<http://www.dcoe.health.mil/default.aspx>

Army one Source:

<http://www.myarmyonesource.com/skins/aos/home.aspx>

Soldier Family Assistance Center :

The SFAC is a team consisting of enlisted Soldiers and civilian employee appointed by the Garrison Commander to coordinate resources and act as a point of contact for patients and their family members.

The SFAC is open to assist patients who have been evacuated to Walter Reed Army Medical Center from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). The SFAC also assists the family members of those patients. The SFAC encourages family members to come to the SFAC after arriving at WRAMC. SFAC staff will attempt to answer any questions you may have during your stay.

<http://www.wramc.amedd.army.mil/Visitors/visitcenter/sfac/Pages/default.aspx>

III. Gulf War veterans

Gulf War veterans with concerns about their health - contact the nearest VA medical center. The telephone number can be found in the local telephone directory under Department of Veterans Affairs in the "U.S. Government" listings. A Gulf War Registry examination will be offered. Treatment will be provided to eligible veterans. The VA Gulf War Information Helpline can also provide the latest information and assistance. The toll-free telephone number is 1-800-PGW-VETS (1-800-749-8387).

A. Gulf War veterans seeking disability compensation

Gulf War veterans seeking **disability compensation** for illnesses incurred in or aggravated by military service should contact a veteran service office near you that is well ad versed when it comes to working these types of claim. Ask other GW vets that have his claim done for who is the best service officer to use. Do not call the Veterans Benefits Counselor or call the VA Gulf War Information Helpline. They have given out the wrong information 60% + of the time. NEVER DO YOUR CLAIM ALONE. There has been to many veterans that tried and lost out on years of payment.

B. Information from the VA

Gulf War veterans with concerns about their health - contact the nearest VA medical center. The telephone number can be found in the local telephone directory under Department of Veterans Affairs in the "U.S. Government" listings. A Gulf War Registry examination will be offered. WE highly encouraged you to seek out assertively to have the gulf war registry exam, This process is important for the VA to have you listed at least in the database of Gulf War Veterans! It is the beginning point! It is not however a C and P Exam. The C and P exam is a separate process.

Treatment will be provided to eligible veterans. Treatment is available after you register into the VA system and go thru the steps of a VA claim.

The VA Gulf War Information Helpline can also provide the latest information and assistance. The toll-free telephone number is 1-800-PGW-VETS (1-800-749-8387).

C. Veterans who have a motor neuron disease

Veterans who have been diagnosed with a motor neuron disease (including **amyotrophic lateral sclerosis** or **Lou Gehrig's disease**) and who were on active duty between August 2, 1990, and July 31, 1991, regardless of whether they actually served in the Gulf War theater of operations (or family/friends of veterans who are deceased or otherwise unable to contact VA) - call 1-877-DIAL-ALS (1-877-342-5257) to participate in a national survey.

IV. Patient Advocates

Gulf War veterans who **encounter difficulties** at a VA medical facility can contact the "**patient advocate**" at that medical facility for assistance in resolving the problem or the NGWRC at toll free (866) 531-7183. If you have a doctor that will not work with you, the patient advocate is there to help you get things worked out. Many times this will end up with you getting a new doctor.

V. Homeless Veterans:

VA National Call Center for Homeless Veterans: The hot line is intended to assist homeless Veterans and their families, community agencies, service providers and others in the community. To be connected with a trained VA staff member call 877-4AID VET (877-424-3838)

VI. Need to Talk- Need Help- Suicide Prevention:

VA Talk line if you are thinking about ending it all
(800) 273-TALK (8255)

There are veterans advocates throughout the web that have offered their help at no cost for decades. They are there for you always many have taken calls from their homes at all hours and saved lives!

Before you reach that point get on the internet finding fellow veterans and these veteran advocates and get to know each other and form your life line! Your life is valuable and we all need each other!

VII. The VA has the War Related Illness & Injury Study Centers

[War-Related Illnesses and Injury Study Centers \(WRIISCs\)](#)s. They can be contacted at 1-800-749-8387. There are three subsections. Press one for GW illnesses. The centers are located at the Washington DC VA Hospital (in room 3B203) <http://www.warrelatedillness.va.gov> and East Orange VA Medical Center (outside of Newark, NJ) <http://www.warrelatedillness.va.gov/nj> and West Coast - Palo Alto, California <http://www.warrelatedillness.va.gov/WARRELATEDILLNESS/paloalto>
You can call 1-800-722-8340 to the Washington DC location, 1-800-248-8005 for the East Orange Location and 1-888-482-4376 for the Palo Alto location

You will need a doctor's referral. The doctor needs to call Helen Malaskiewicz at 1-202-273-8463 for the necessary information/forms.

<http://www.warrelatedillness.va.gov/provider/wriisc-provider-home.asp>

The Department of Veterans Affairs has some new programs for Veterans Returning from Operation Iraqi Freedom and Desert Storm. VA has produced a tri-fold that has important information for returning veterans. See -

<http://www.va.gov/environagents/docs/SVABENEFITS.pdf>

More Data on Combat Related Special Compensation program

<http://www.dod.mil/prhome/crsc.html> The form for applying is located at <http://www.dod.mil/prhome/docs/form.pdf>

The VA also has information on the Special Health Care Eligibility for Combat Veterans

http://www.va.gov/environagents/docs/Combat_Vets_2-year_health_care_.pdf

<http://www.va.gov/environagents/docs/SpecialHCforCombatVets2.pdf>

The Center for Women Veterans: <http://www.va.gov/womenvet/>

To find a State Veterans Affairs Office:

<http://www.va.gov/partners/stateoffice/index.htm>

To get information on reemployment rights and unemployment insurance:

<http://www.dol.gov>

For those individuals that are hearing impaired, the TDD number is 800-829-4833.

Chapter 4 *Post-Traumatic Stress Disorder*

Introduction

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Introduction

The purpose of this guide is to assist you, the veteran, or your survivor(s), in presenting your claim for benefits based on exposure to psychologically traumatic events during military service that has resulted in post-traumatic stress disorder (PTSD). It is always best to seek the assistance of an experienced veterans service representative when presenting a claim to the U.S. Department of Veterans Affairs (VA).

This guide describes the VA's current programs for providing disability compensation to veterans who suffer from PTSD, as well as for the survivors of such veterans. Under current VA regulations, you can be paid compensation for PTSD if you currently have a clear medical diagnosis of the disorder, evidence that a sufficiently traumatic event (called a “stressor”) occurred during active military service and medical evidence that the in-service stressor is causally related to your PTSD. Once the VA determines that your PTSD is service-connected, it will then decide how seriously your symptoms impair your social and industrial abilities (*i.e.*, your capacity to start and maintain personal relationships and your ability to work).

This guide does not address treatment techniques, but does provide suggestions for obtaining the appropriate care. Additional resources are available to help you to better understand what other VA programs may be available to you.

PTSD is not a new problem. It is simply a more recent label for an age-old disorder that has been in existence since Stone Age warriors were beating each other with clubs. Around 1980, the American Psychiatric Association designated PTSD to describe a delayed-stress syndrome commonly experienced by combat-veterans. This condition had previously been referred to as “shell-shock” and “war/combat neurosis”. Although PTSD is often associated with Vietnam veterans, it appears in veterans of all wars and eras.

There have been many changes in the VA's rules involving PTSD since 1980 and some additional changes are expected soon as a result of new understanding about PTSD. Recent decisions by the U.S. Court of Appeals for Veterans Claims have also forced changes in how the VA processes PTSD claims. It is important to keep up with these changes by accessing the VA's website (www.va.gov) for the latest information. You can also contact a service representative in your area to answer any questions that you might have about PTSD or the claims adjudication process in general.

We have included in this guide a short description of what to do if the VA denies your claim or establishes an unjust rating percentage for your disability.

I. WHAT IS PTSD?

The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (1994) (DSM-IV) describes PTSD as follows:

Diagnostic Features

The essential feature of Posttraumatic Stress Disorder is the development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person, or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate. The person's response to the event must involve intense fear, helplessness, or horror. The characteristic symptoms resulting from the exposure to the extreme trauma include persistent re-experiencing of the traumatic event, persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness, and persistent symptoms of increased arousal. The full symptom picture must be present for more than 1 month, and the disturbance must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Traumatic events that are experienced directly include, but are not limited to, military combat, violent personal assault (sexual assault, physical attack, robbery, mugging), being kidnapped, being taken hostage, terrorist attack, torture, incarceration as a prisoner of war or in a concentration camp, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening illness. The disorder may be especially severe or long lasting when the stressor is of human design (e.g., War, torture, rape). The likelihood of developing this disorder may increase as the intensity of and physical proximity to the stressor increase.

The traumatic event can be re-experienced in various ways. Commonly, the person has recurrent and intrusive recollections of the event or recurrent distressing dreams during which the event is replayed. In rare instances, the person experiences dissociative states that last from few seconds to several hours, or even days, during which components of the event are relived and the person behaves as though experiencing the event at that moment. Intense psychological distress or physiological reactivity often occurs when the person is exposed to triggering events that resemble or symbolize an aspect of the traumatic event (e.g., anniversaries of the traumatic event; cold snowy weather or uniformed guards for survivors of death camps in cold climates; hot, humid weather for combat veterans of the South Pacific; entering any elevator for a woman who was raped in an elevator).

Stimuli associated with the trauma are persistently avoided. The person commonly makes deliberate efforts to avoid thoughts, feeling, or conversations about the traumatic event and to avoid activities, situations, or people who arouse recollections of it. This avoidance of reminders may include amnesia for an important aspect of the traumatic event. Diminished responsiveness to the external world, referred to as "psychic numbing" or "emotional anesthesia," usually begins soon after the traumatic event. The individual may complain of having markedly diminished interest or participation in previously enjoyed activities, of feeling detached or estranged from other people, or of having markedly reduced ability to feel emotions (especially those associated with intimacy, tenderness, and sexuality). The individual may have a sense of foreshortened future (e.g., not expecting to have a career, marriage, children, or a normal life span).

The individual has persistent symptoms of anxiety or increased arousal that were not present before the trauma. These symptoms may include difficulty falling or staying asleep that may be due to recurrent nightmares during which the traumatic event is relived, hyper-vigilance, and exaggerated startle response. Some individuals report irritability or outbursts or anger or difficulty concentrating or completing tasks.

II. TIPS ON WORKING WITH YOUR SERVICE REPRESENTATIVE

It is always an advantage, regardless of the nature of the disorder underlying a claim for benefits, to have an experienced veterans service representative assist you in the prosecution of a claim for VA disability compensation. These individuals are familiar with veterans benefits law and procedures, and can provide more effective representation than trying to handle the claim yourself. .

Keep in touch: You should talk to your representative at least once per month while your claim is pending. Whenever you get mail from the VA, call your representative to make sure that he or she has received a copy (as required by VA regulations) and that you understand exactly what it means.

Ask questions: If you do not understand something about your claim, ask. Part of your service representative's responsibility is to ensure that you understand the claims process.

Exercise your judgment: Your service representative is charged with acting in your best interests. However, you are the ultimate decision maker with respect to your claim. Your service representative will tell you if he or she disagrees with what you want to do and why. They can make recommendations, but must do as you instruct. Note that the law permits service representatives to resign if there are true fundamental disagreements.

Insist that your service representative:

- discuss your case with you;
- be familiar with your VA claims file and all of the evidence;

- be able and willing to discuss what VA regulations require to win your case and what evidence is needed to prevail;
- discuss your case and what to expect with respect to personal hearings;
- submit a written statement to the VA before a personal hearing. He or she should let you read the statement before it is submitted.

III. GETTING HELP

As discussed above, it is always a good idea to obtain a service representative to help you present your claim to the VA. VA rules and procedures are very complicated. It can be frustrating and hazardous to go it alone.

Veterans service organizations, as well as state and county departments of veterans affairs offer their services without charge. No matter whom you select to represent you, it is important that you be personally involved in your case and make certain that everything that should be done, is done.

Although it can be a difficult task, shop around for the best advocate. Talk to the prospective representative; ask if there are any limits on his or her representation; get a feel for the person who will be working for you before you sign a power of attorney appointing the person as your representative.

V. DEVELOP THE EVIDENCE

The VA regulation that governs the adjudication of PTSD claims is title 38, Code of Federal Regulations, section 3.304(f) (formally cited as 38 C.F.R. § 3.304(f)). Essentially, the regulation provides that service connection for PTSD requires medical evidence of a current, clear diagnosis of PTSD, a link between current PTSD symptoms and an in-service stressor that is established by medical evidence, and credible supporting evidence that the claimed stressor actually occurred. If the evidence establishes that the veteran engaged in combat and the claimed stressor is related to combat, the veteran's lay testimony alone can establish that the claimed stressor occurred. The same applies to stressors related to captivity where the evidence demonstrates that the veteran was a prisoner-of-war. If the claimed stressor is not related to combat, the veteran must prove its existence with evidence, such as service medical or personnel records, unit records, morning reports, or buddy statements.

Where the claimed stressor is a personal or sexual assault, evidence from sources other than the veteran's service record may be used to corroborate the veteran's account. Such sources include records of law enforcement authorities, rape crisis or mental health counseling centers, physician or hospital records, tests for pregnancy or sexually transmitted diseases, statements from family, friends or fellow service personnel, evidence of changes in behavior or performance, and requests for transfers.

ESTABLISH A STRESSOR

To prevail in a PTSD-based claim, you must establish that you have undergone a traumatic event or events (called a stressor) during your military service that would support a clinical diagnosis of PTSD. Unless your military records document that you were in combat with the enemy, your claimed stressor must be documented. A combat-related military occupational specialty (MOS) or combat-related awards or decorations (*e.g.*, Combat Infantryman's Badge or a Purple Heart) are examples of documented combat experience. However, if your service records do not demonstrate a combat-related MOS or decorations and you assert that you had experienced combat or enemy fire or attack, the VA is required to assist you in obtaining documentation that supports your claim (including researching government records) that could place you in a documented area of attack or an isolated hostile incident.

You are entitled to one copy of your entire VA claims file (or C-file) without charge. If you have ever had any official contact with the VA that relates to a claim for benefits, your claims file should contain all of the service and post-service medical records that the VA has, as well as any correspondence to or from the VA and adjudication-related documentation.

VI. ESTABLISH A DIAGNOSIS

You cannot be awarded service connection for PTSD if you do not have a current, clear diagnosis of PTSD. That diagnosis should come from a mental health professional (psychiatrist, psychologist, psychiatric social worker or therapist). If you have records that document the in-service stressor, let your doctor review them prior to writing his or her report. It is even better to provide your doctor with a copy of your service medical records. You can request a copy of your service medical records from the National Personnel Record Center in St. Louis, Mo., using a Standard Form 180, Request Pertaining to Military Records. This form is available from your representative or any VA office. You can also apply for a copy of your service records online <http://www.archives.gov/veterans/evetrecs/index.html>

Frequently, veterans with PTSD may have other diagnoses, *e.g.*, personality disorder or substance abuse. It is very important that your doctor explain how your current diagnosis of PTSD relates to any other psychiatric disorder that you might have. If there is a history of alcohol or drug abuse, the doctor should state whether it preexisted PTSD or not and whether substance abuse developed because of PTSD (*i.e.*, self-medication).

You can expect the VA to contact you for evidence or for permission to request copies of your medical records. If the VA has treated you for your PTSD, make sure to ask that the VA obtain all records from the treatment center.

The VA may schedule you for an examination by one of its doctor at a VA hospital or clinic. This examination (called a compensation or pension (or C&P) examination) is intended to confirm a diagnosis of PTSD and, if present, to describe the nature and severity of its symptoms. Bring copies of any prior psychiatric treatment records to the examination with you. If you do not have records of recent treatment for PTSD, you can specifically request that the VA provide you with a C&P examination.

If you do not already have a private doctor's report, you should expect the VA doctor to ask many questions about what symptoms you have, when you began to have them and how often and how long you have had them. Some of the hardest questions will be about the stressful experience you had. You will need to be able to describe in detail (and sometimes painful detail) exactly what you experienced. You might also be asked to take a written, standardized diagnostic test.

IV. APPLY

- **When to Apply:** You should notify the VA of the benefits you want at the earliest possible time. Get a good service officer and apply. Do not wait until you have gathered all of the evidence that you think you will need. Every day you delay can mean another day of benefits lost forever.
- **How to Apply:** To apply, have your veteran service office fill out a form stating that you have a problem with your nerves, emotions, etc., that arose out of your military service.
- **What to Apply For:** The VA offers monetary benefits to veterans with service-connected disabilities (under its disability compensation program) and to veterans with serious nonservice-connected disabilities (under its pension program). Survivors may be entitled to benefits if the VA determines that the veteran had a service-connected disability that caused, or substantially contributed to cause, the veteran's death. (See below).
- **Who Can Apply:** A claim for PTSD is not limited to veterans who participated in combat with the enemy. For example, sexual assaults, vehicular accidents, being a victim of a crime or other sufficiently traumatic events during service can support a diagnosis of PTSD for VA claims purposes. Merely being in stressful situations, or being "stressed-out" generally will not be sufficient.

Sometimes a veteran's survivor, including spouses, children and dependent parents can apply for service-connected death benefits (Dependency and Indemnity Compensation or DIC program) or for the nonservice-connected death benefits (pension program). A survivor might be able to show that a veteran with service-connected PTSD died as a consequence of a disease that was secondary to PTSD, *e.g.*, cardiovascular disease, substance abuse (in certain cases).

WARNING: If you have applied in the past and were denied, you may have a hard time reopening your claim. There is no specific VA application form to use to reopen your claim, but there are specific rules you must follow in terms of the evidence required in order for the VA to reopen the claim. Consult your service representative for details on what kind of "new and material evidence" you need to present.

V. HOW THE VA EVALUATES LEVELS OF DISABILITY

Once the VA has awarded service connection or PTSD, it will then review the most current clinical evidence of record to determine how the severity of your symptoms impairs your social and industrial (ability to work) capacity. The VA has a schedule of rating disabilities, located in title 38 C.F.R., Part 4. The VA has established "Diagnostic Codes" (DC) for various medical and psychiatric disorders, which include a description of the severity of related symptoms and a corresponding disability percentage (called a "rating" or "evaluation"). Although there are different DCs for covered psychiatric disorders, the VA evaluates the level of disability due to psychiatric disorders under the same criteria, regardless of the actual diagnosis. 38 C.F.R. §4.130, DC 9411, governs PTSD ratings. This regulation provides graduated ratings of 0%, 10%, 30%, 50%, 70% or 100%. A 0% rating is noncompensable. This means that you have service-connected PTSD, however, there is little or no impairment as a result. VA compensations payments begin at 10% and increase at each rating level.

The VA has adopted the criteria established in the DSM-IV as the basis for its psychiatric ratings, including PTSD. There is also a diagnostic matrix called the Global Assessment of Functioning Scale (GAF) that is used to determine your level of disability. The lower the GAF score, the higher the level of social and industrial impairment. Section 4.130 is reproduced below. You can share this with your psychiatric provider of care, who can prepare a report or opinion letter for submission to the VA that describes your level of impairment.

Bear in mind that even if the severity of your symptoms do not satisfy the diagnostic criteria for a 100% (or total) evaluation under the rating schedule, if your rating is high enough, another VA regulation (38 C.F.R. § 4.16) allows the VA to pay you at the 100% level if medical evidence demonstrates that you are unable to obtain or maintain substantially gainful employment as the result of your service-connected PTSD. The technical term for this is a total rating on the basis of individual unemployability due to service-connected disability (TDIU or IU).

38 C.F.R. § 4.130, DC 9411

General Rating Formula for Mental Disorders:

Total occupational and social impairment, due to such symptoms as: gross impairment in thought process or communication; persistent delusions or hallucinations; grossly inappropriate behavior; persistent danger of hurting self or others; intermittent inability to perform activities of daily living (including maintenance of minimal personal hygiene); disorientation to time or place; memory loss for names of close relatives, own occupation, or own name100%

Occupational and social impairment, with deficiencies in most areas, such as work, school, family relations, judgment, thinking, or mood, due to such symptoms as: suicidal ideation; obsessional rituals which interfere with routine activities; speech intermittently illogical, obscure, or irrelevant; near-continuous panic or depression affecting the ability to function independently, appropriately and effectively; impaired impulse control (such as unprovoked irritability with periods of violence); spatial disorientation; neglect of personal appearance and hygiene; difficulty in adapting to stressful circumstances (including work or a work like setting); inability to establish and maintain effective relationships 70%

Occupational and social impairment with reduced reliability and productivity due to such symptoms as: flattened affect; circumstantial, circumlocutory, or stereotyped speech; panic attacks more than once a week; difficulty in understanding complex commands; impairment of short- and long-term memory (e.g., retention of only highly learned material, forgetting to complete tasks); impaired judgment; impaired abstract thinking; disturbances of motivation and mood; difficulty in establishing and maintaining Effective work and social relationships50%

Occupational and social impairment with occasional decrease in work efficiency and intermittent periods of inability to perform occupational tasks (although generally functioning satisfactorily, with routine behavior, self-care, and conversation normal), due to such symptoms as: depressed mood, anxiety, suspiciousness, panic attacks (weekly or less often), chronic sleep impairment, mild memory loss (such as forgetting names, directions, recent events) 30%

Occupational and social impairment due to mild or transient symptoms which decrease work efficiency and ability to perform occupational tasks only during periods of significant stress, or; symptoms controlled by continuous medication 10%

A mental condition has been formally diagnosed, but symptoms are not severe enough either to interfere with occupational and social functioning or to require continuous medication 0%

To find the current VA disability compensation monthly payment rates, please go to the VA website at www.va.gov. From the homepage, click on “Compensation”, then on

“Rate Tables”. Additional monthly payments may be available based on the beneficiary’s number of dependents.

VI. HOW TO RESPOND TO THE VA’S DECISION

You do not help yourself if you simply dump a pile of loose records on the VA. Organize the records and explain their significance in a letter you and your representative prepare together. Once the VA regional office makes a decision with respect to your claim, you (and your service representative) will receive a notice of that decision which explains the reasons for the VA’s determination. Read the notice carefully and discuss it with your representative. Your appeal should address the specific reasons why the VA denied the claim or awarded a rating that is too low or an effective date that is too late.

The first step in appealing a claim is to send the VA regional office a "Notice of Disagreement " (NOD). There is no official NOD form. Generally, the NOD can be a written statement on VA Form 21-4138 (Statement in Support of Claim) or a letter that states that you disagree with the decision. Be sure to include in your NOD the date of the decision that you disagree with, which issues you disagree with and that you intend to appeal those issues. You have *one year* from the date of the VA’s notice of its decision to file your NOD with the VA regional office. If you miss this deadline, you can only reopen your claim based on new and material evidence or establishing that the VA denial was the product of clear and unmistakable error (which is very difficult to prove).

After the VA receives your NOD, you should receive a letter that acknowledges your NOD. You will be asked whether you wish to have your appeal sent to the Board of Veterans’ Appeals (BVA) in Washington, D.C., or whether you wish to have your claim reviewed on a *de novo* basis. The latter refers to the VA’s Decision Review Officer (DRO) program. This is an informal appellate process within the regional office. The DRO has the authority to reverse or modify a VA rating board decision. We recommend that you seek DRO review before you request a BVA appeal. The DRO process is frequently successful and is generally faster than going straight to the BVA. If you do not receive a better decision from the DRO, you can still appeal to the BVA.

Once the DRO has made a decision or has received your request for BVA consideration, the VA will issue a “Statement of the Case” (SOC). This document will explain the VA’s decision(s) in detail. You have 60 days from the date of the SOC to file your substantive appeal to the BVA on VA Form 9. (VA forms can be downloaded from the VA’s “Compensation” website. You can even apply for benefits online under “Vonapp” (Veterans Online Application)). Your appeal will then be certified and forwarded to the BVA for consideration.

VII. VA MEDICAL SERVICES

The VA operates a network of Vet Centers throughout the country that provides treatment for veterans suffering from PTSD. Treatment at Vet Centers is often conducted with a group of veterans. Sometimes the VA will pay for treatment by a local mental health professional, if services through the nearest VA are not readily available. To apply for this "fee basis" care, contact your nearest VA medical center.

There are also a few VA medical centers that offer intensive inpatient care. If this is something you need, ask the nearest Vet Center to help arrange for your admission.

New rules governing PTSD You can find the new rules on our website.
www.ngwrc.org

Topeka, Kansas - July 9th, 2010

With the VA's recently announced plans to revise regulations governing claims for Post Traumatic Stress Disorder (PTSD), veterans will be permitted to request that their previously denied claim for PTSD be reopened and reevaluated based on the VA's new criteria.

When the VA makes rule changes of this kind (e.g., PTSD, Gulf War Illnesses), veterans who were previously denied for these conditions can send a letter to their VA Regional Office asking to have their previously denied claims reevaluated under the new regulations.

It's important to emphasize that the VA does not automatically reopen these previously denied claims. The veteran must formally request (in writing) that their case be reopened and reevaluated.

Also very important - Requests to have cases reevaluated based on new or revised VA regulations must be received by the veteran's VA Regional Office no later than six months after the date that the revision was announced. If the veteran complies with this requirement and their reevaluated claim is ultimately approved, the effective date will be retroactive to the date of the new regulation.

Requests for reopening of cases that are received after the six month deadline, if approved, will be assigned an effective date that coincides with the date that the VA Regional Office received the veteran's letter requesting reopening of their case. Bottom line; Get your letter in ASAP.

The NGWRC is asking that all veterans previously denied for PTSD or Gulf War Illnesses send a letter to their VA Regional Office as soon as possible requesting that their PTSD claim (or Gulf War Illness claim) be reopened and reconsidered under the VA's recently revised regulations for these conditions.

We also need your help in passing on this information to as many veterans as possible. Please forward this to as many veterans as you know.

These new rules apply to veterans from all wars.

Chapter 5 EXPOSURES

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Many developments have occurred since publication of the initial version of this Guide. Most notable has been the issuance of a November 2008 report by the VA's "Research Advisory Committee on Gulf War Veteran's Illnesses" which can be viewed online at: [http://www1.va.gov/RAC-GWVI/docs/Committee Documents/GWlandHealthofGWVeterans_RAC-GWVIReport_2008.pdf](http://www1.va.gov/RAC-GWVI/docs/Committee_Documents/GWlandHealthofGWVeterans_RAC-GWVIReport_2008.pdf)

Among the exposures discussed in the aforementioned report are;

<i>Type of Exposure</i>	
Oil Well Fires and Smoke	Pesticides
Depleted Uranium (DU)	Infectious Diseases
Anthrax Vaccine	Sand and Particulate Matter
Vaccine Adjuvants	Petro Chemicals and Solvents
Botulinum Toxoid Vaccine	Vehicle and Aircraft Fuels
Multiple Vaccines	Chemical Resistant Coating Paint
Pyridostigmine Bromide (PB) Pills	Contaminated Food and Water
Chemical Warfare Agents	

I. Chemical Warfare Agents

Historical Perspective: The NGWRC, our member groups, and many individual veterans uncovered numerous documented chemical incidents and casualties using the Congressional reports, the Freedom of Information Act (FOIA), and information provided to us from individual veterans. As a result, by 1997, the DoD was forced to admit that 100,000 U.S. troops were exposed to low levels of sarin, cyclosarin, and mustard agents during the demolition of an Iraqi military bunker complex at the Kamisiyah depot in March 1991. In 1999, the VA increased the number to more than 124,000 and eventually to over 140,000 U.S. troops exposed. A much clearer picture emerged, in part at least because NGWRC exposed DoD statistical manipulations that demonstrated flawed modeling and understanding of the estimated exposures.

NGWRC's research campaign resulted in the DoD revamping their entire Gulf War Illnesses investigation. By 1999, the DoD employed a staff of more than 150 to investigate the thousands of toxic exposure incidents, many brought to light by NGWRC research volunteers. Official military documents obtained from Congressional reports, using FOIA, or letters sent by Gulf War veterans have revealed the following:

- The U.S. Departments of State, Defense, and Commerce allowed the shipment of dual-use chemical precursors and technology to Iraq until 1990.

- Possible offensive use of chemical warfare agents by Iraq against Israel, according to Central Command Nuclear, Biological, and Chemical (CENTCOM NBC log) incident logs compiled between January and March 1991.
- Possible deployment of chemical warfare agent land mines by Iraq, according to CENTCOM NBC log.
- Exposure of Coalition troops and civilians to chemicals due to Coalition bombings of Iraqi manufacturing and storage facilities during the air war, according to a report and Senate investigation led by former Senator Donald Riegle.
- Exposure of troops to chemicals from artillery and other bombardment and/or exposure of troops to chemicals as a result of post-cease fire demolitions, according to the CENTCOM NBC log.

In spite of the overwhelming evidence of widespread poisonous gas exposures, the DoD continued to downplay the seriousness of these exposures. Documented evidence suggests the Pentagon possessed prior knowledge, before the air war, of the potential for chemical releases and the subsequent health problems that could be caused by exposure to low level chemical warfare agents, according to a report prepared by the Lawrence Livermore Laboratory in California.

Also, part of the problem in dealing with chemical exposures is the DoD's misguided doctrine that in order to confirm exposure, a soldier must experience visible and severe effects (such as death) immediately following exposure.

In 1996, the NGWRC called for the appointment of a special prosecutor from the Department of Justice to investigate the misplacement, concealment, or destruction of government documents related to chemical and biological agent incidents and exposures. As a result of this request, DoD's IG investigated the missing chemical exposure documents and determined they were accidentally destroyed by a computer virus on an unauthorized video game on a DoD computer, lost from at least two locked military safes, and/or still classified.

As of this writing, Representative Rush Holt (D-NJ) continues to push for DoD's declassification of the remaining documents that the CIA and DoD didn't lose or shred.

As a result of NGWRC's work in documenting known exposures and pushing for research demonstrating the health effects of low level exposures, DoD has funded some medical research projects in this area and has also begun reevaluating their low-level chemical exposure doctrine.

II. Status of Investigations and Epidemiological Research

Numerous studies have essentially disproved the DoD notion that only immediately visible, severe symptoms provide evidence of exposure to chemical agents. According to a study by researchers at the University of New Mexico, Albuquerque, and the U.S. Army Medical Research Institute of Chemical Defense, Aberdeen, MD, exposure to sarin nerve

gas in concentrations too low to produce immediate symptoms causes irreversible brain damage in laboratory rats.

1.

A. Publications

The findings, published in three scientific articles in the journal *Toxicology and Applied Pharmacology* supply missing pieces that connect nerve gas exposure in the 1991 Gulf War to memory loss/cognitive dysfunction, weakened immune response, and DNA and behavior abnormalities.

- 1) **GAO Report (GAO-03-833T)** on Preliminary Assessment of DoD Plume Modeling for U.S. Troops Exposure to Chemical Agents, dated June 2, 2003.

Gulf War Illnesses: Preliminary Assessment of DoD's Plume Modeling for U.S. Troops' Exposure to Chemical Agents, by Keith A. Rhodes, chief technologist, before the Subcommittee on National Security, Emerging Threats, and International Relations, House Committee on Government Reform; <http://www.gao.gov/new.items/d03833t.pdf>

The number of U.S. troops exposed to nerve gas after the first gulf war was underestimated because of flaws in how troops were studied, government investigators have concluded.

The computer models used to determine the extent of sarin gas exposure were inaccurate and incomplete. Troops were exposed to sarin, a toxic nerve agent, when a missile arsenal at Kamisiyah in southeastern Iraq was blown up in March 1991.

Over the years, the military has raised its estimate of the number of exposed troops from a few hundred to more than 100,000. Now the General Accounting Office (GAO) says the estimate is inadequate.

In June of 2004 the GAO told a congressional panel that the computer models, developed by the DOD and the CIA, did not take weather patterns into account, The models also underestimated the height of the plumes sent skyward when the arsenal was destroyed. Defense and CIA modeling underestimated the extent of U.S. troop exposure since the modeling was not accurate enough to draw conclusions.

See: <http://www.globalsecurity.org/military/library/report/gao/d04821t.pdf>

Note: The VA has received 54,000 claims related to exposure at the munitions site. It has granted 41,000 and denied 7,000. Others are pending.

- 2) **Institute of Medicine (IOM)**

From the IOM website:

http://www.iom.edu/Global/Search.aspx?q=gulf+war&output=xml_no_dtd&client=default_frontend&site=default_collection&proxyreload=1

In 1998, the IOM began a series of congressionally-mandated studies to examine the scientific and medical literature on the potential health effects of chemical and biological agents related to the 1991 Gulf War. The studies completed to date are listed at the above IOM web link.

The first study reviewed the scientific literature on depleted uranium, chemical warfare agents (sarin and cyclosarin), pyridostigmine bromide, and vaccines (anthrax and botulinum toxoid) and resulted in the report, **Gulf War and Health Volumes 1: Depleted Uranium, Pyridostigmine Bromide, Sarin, and Vaccines.**

In February 2001, the IOM convened a subsequent committee, to examine the health effects associated with exposure to pesticides and solvents. This study resulted in the report **Gulf War and Health: Volume 2: Insecticides and Solvents.**

In March 2003, a third committee was convened to conduct a review of the peer-reviewed literature on the long-term human health effects associated with exposure to selected environmental agents, pollutants, and synthetic chemical compounds believed to have been present during the 1991 Gulf War including hydrazines, red fuming nitric acid, hydrogen sulfide, oil-fire byproducts, diesel-heater fumes, and fuels (for example, jet fuel and gasoline). This study resulted in the report **Gulf War and Health, Volume 3: Fuels, Combustion Products, and Propellants.**

In January 2005, a fourth committee was convened to review, evaluate, and summarize peer-reviewed scientific and medical literature addressing the overall health status of Gulf War veterans to see what this literature collectively shows about the prevalence of veterans' symptoms and illnesses. This study resulted in the report **Gulf War and Health, Volume 4: Health Effects of Serving in the Gulf War.**

In March 2005, the IOM convened a fifth committee to review, evaluate, and summarize the peer-reviewed scientific and medical literature on long-term adverse human health effects associated with selected infectious diseases (such as diseases caused by pathogenic *Escherichia coli*, shigellosis, Leishmaniasis, and sandfly fever) pertinent to Gulf War veterans, as well as to veterans of the current conflicts (Operation Iraqi Freedom; Operation Enduring Freedom). This study resulted in the report **Gulf War and Health, Volume 5: Infectious Diseases.**

In May of 2005, a sixth committee was convened to comprehensively review, evaluate, and summarize the peer-reviewed scientific and medical literature regarding the association between stress and long-term adverse health effects (physiological, psychological, and psychosocial) in Gulf War veterans. This study's findings are not only limited to veterans of the 1991 Gulf War conflict but are applicable to veterans of the current conflict (Operation Iraqi Freedom; Operation Enduring Freedom). **Gulf War Health, Volume 6: Gulf War and Health: Physiologic, Psychologic, and Psychosocial Effects of Deployment Related Stress.**

The VA, under authorization granted in the 1998 legislation, has asked IOM to determine long term health outcomes associated with TBI. TBI has been called the signature injury of OEF and OIF primarily due to blast exposure that is characteristic of this conflict. Exposure to blast might cause instant death, injuries with immediate manifestation of symptoms, or injuries with delayed manifestation. Blast-induced neurotrauma, however, has not been studied sufficiently to confirm reports of long-term effects. That many returning veterans have TBI will likely mean long-term challenges for them and their family members. Veterans will need support systems at home and in their communities to assist them in coping with the long-term sequelae of their injuries. Further, many veterans will have undiagnosed brain injury because not all TBIs have immediately recognized effects or are easily diagnosed with neuroimaging techniques. In 2008 the report, **Gulf War and Health, Volume 7: Long-term Consequences of Traumatic Brain Injury** was released.

In April of 2010 the IOM released a new report, this one indicating that Gulf War service was linked to Post-Traumatic Stress Disorder (PTSD), Multi-symptom illness, and other health problems, but that the causes still remain unclear. Their report is entitled: **Gulf War and Health, Volume 8: Health Effects of Serving in the Gulf War.**

3) Research Advisory Committee on Gulf War Veterans' Illnesses (RAC-GWVI)

From the RAC-GWVI website:

http://www1.va.gov/RAC-GWVI/docs/Committee_Documents/GWandHealthofGWVeterans_RAC-GWVIReport_2008.pdf

The Research Advisory Committee on Gulf War Veterans' Illnesses was created by Congress in 1998, and first appointed by Secretary of Veterans Affairs Anthony J. Principi in January, 2002. The mission of the Committee is to make recommendations to the Secretary of Veterans Affairs on government research relating to the health consequences of military service in the Southwest Asia theater of operations during the Persian Gulf War.

In November of 2008 the RAC-GWVI published "*Gulf War Illness and the Health of Gulf War Veterans*". This publication can be viewed in its entirety at the above web link. NGWRC highly recommends that all Gulf War veterans take the time to familiarize themselves with the myriad of information contained in this very detailed publication.

III. Investigational Drugs

In December 1990, the Food and Drug Administration (FDA) issued a waiver to the DOD allowing the military to administer "investigational new drugs" to U.S. troops without obtaining informed consent. The NGWRC understands the intent of the DOD to provide the best possible protection to U.S. troops deployed overseas. However, the NGWRC filed

suit to require the DOD to follow other U.S. laws and the Nuremberg Code. Both require informed consent from the patient before an IND is used.

Informed consent means telling the soldiers what they are getting, why they are getting it, maintaining adequate records, and providing any needed medical care resulting from use. On October 17, 1998 PL 105-261 was enacted, requiring the president of the United States to issue a Finding before any INDs are used on military personnel. Thus, PB and BT could not be used without significant executive branch endeavor to meet legal conditions. Unfortunately, this NGWRC, veteran and service member victory has been virtually nullified by several developments. President Clinton issued Executive order 13139 in 1999 that allowed him and his successors to waive informed consent in times of nation security emergency. Additionally, the FDA instituted an “animal only” rule for bio-warfare drugs and vaccines that circumvented the long-standing requirement for human efficacy testing on the basis that such testing is unethical. Furthermore, the FDA is now differentially licensing drugs and vaccines for service-members and civilians (smallpox vaccine and PB are now fully licensed for wartime use but civilians are receiving smallpox vaccine under an IND). Upon determination by the president, at the request of the Secretary of Defense, and because of the FDA ruling, service members now face the exact same problem of forced experimentation experienced by Gulf War veterans.

1. Pyridostigmine Bromide (PB)

a. Historical Perspective

Pyridostigmine bromide (PB), a nerve agent pre-treatment drug, was a small white pill issued to U.S. and U.K. troops in blister packets. According to the DOD, as many as 250,000 U.S. troops took PB pills. The DOD failed to follow the FDA waiver, and very few records exist documenting who took how many of these pills.

Approved only for use in cases of a severe neurological disorder known as myasthenia gravis or to reverse anesthesia, PB has never been approved for use on civilians to protect against chemical warfare agents – this is why it has IND status (NO longer IND since March 2003).

In the few limited tests conducted prior to the war by the DOD, women, smokers, and anyone who might be at all sensitive to the drug were not allowed to participate. Despite screening, some adverse effects were noted. Some researchers believe pre-treatment with PB is only effective in relation to exposure to soman and they claim it may increase adverse effects of sarin.

b. Status of Investigations and Epidemiological Research

The National Gulf War Resource Center has demanded answers from the FDA concerning the approval of PB as a pretreatment for exposure to the nerve agent Soman. Documents and scientific studies conducted over the last 15 years have clearly shown this drug is both experimental and harmful when used for CW

pretreatment, since soldiers are exposed to pesticides and other substances that increase PB's toxicity. The DOD and the Department of Veterans Affairs have both concluded through previous studies that PB could not be ruled out as a factor in Gulf War veteran's illnesses. In fact, Congress banned DOD's use of the substance in an amendment to the FY '99 Defense Authorization Bill unless it was approved for use by a Presidential waiver.

c. Several problems persist for continued use of this substance:

1. Studies have shown that PB's effectiveness against Soman is questionable; more importantly, our enemies in Iraq and Afghanistan have never been shown to have stores of Soman. Prescribing PB as a pretreatment is unscientific, dangerous, and appears to be simply a CYA maneuver in the event other measures, such as personal protective equipment, fail and is not proven effective by scientific fact.
2. PB's dosing for effectiveness is variable in each individual and would require individual evaluation due to the genetics and the size of the person receiving the dose.
3. PB is known to cause muscle damage in the animal studies cited by the FDA with even one dose.
4. Researchers have shown that PB, with simultaneous exposures to combinations of DEET, permethrin, sarin, or jet fuel, causes brain and testicular injury in experimental animals.

Thus, in allowing its use the FDA, DOD, Congress and the President are permitting questionable protection against Soman and increasing the likelihood that troops will be more susceptible to Sarin. It is possible that those who made the decision think they have chosen the lesser of two evils with the troops' protection in mind. But a policy decision that ignores the facts about the risks of PB is irresponsible policy-making.

It is unfortunate that the FDA has approved PB when it is known to have harmed veterans of the last Gulf War. Once again, our government is putting soldiers in another type of "Harm's Way," which could have been prevented. FDA's ruling is most likely the impetus for soldiers saving their sperm prior to the latest deployment to the Gulf region. The very least the Pentagon should have done is to give pre- and post-deployment exams and blood draws that may allow for analysis of PB effects on health.

2. Botulinum Toxoid (BT) Vaccine

The botulinum toxoid (BT) vaccine is also an IND. Before the 1991 war began, Ralph Nader's Public Citizen sought a court order to prevent the military from using the anti-

nerve agent pill and botulinum toxoid vaccine. According to the DOD, approximately 8,000 U.S. troops received this vaccine. Again, the DOD failed to comply with the FDA waiver, and few records were kept showing who received the BT vaccine. An amendment by Senator Byrd of West Virginia to the FY 1999 Department of Defense Authorization Bill required the military to stop using this vaccine, along with the PB Tabs, without a waiver of informed consent by the President. The NGWRC is not aware of any research underway or completed regarding the long-term effects of the BT vaccine.

3. Anthrax Vaccine

Anthrax Chronology by Alan Milstein:

<http://www.sskrplaw.com/vaccine/anthchrono.html>

Military Perspective – First known use of Anthrax as a biological weapon was against the Chinese by the occupying Japanese army in the 1930s. In response, the United States, Canada and the United Kingdom developed and experimented with anthrax weapons in 1941. After signing the Biological and Toxic Weapons Convention in 1972, the US stopped development of anthrax weapons.

The Vaccine: Although some form of Anthrax vaccine has been used since 1881, when Louis Pasteur developed the first successful vaccine for veterinary purposes, there are still many questions and problems about its use:

- Several formulations have been developed; some have proved fatal to recipients, others ineffective at preventing disease.
- The anthrax vaccine approved by the FDA is only for skin-contact (cutaneous) exposure; inhalation and ingestion exposures remain unprotected. Ingestion anthrax is rare, but inhalation anthrax seems like a more logical delivery for a bioterrorist to use than cutaneous delivery. The FDA eventually approved the same vaccine for all forms of anthrax, leaving many to doubt the entire process of FDA approval.
- For the 150,000 troops who were inoculated against anthrax in 1990-91, records kept by the DOD were incomplete and inconsistent. Therefore, there is no record to show who received the DOD vaccine, when it was given, or which lots of vaccines were used. According to the DOD, records were not kept due to a mistaken belief by some military healthcare providers that the anthrax vaccine was a classified matter.
- Some lots of the vaccine may have been contaminated.
- Some shot recipients did not deploy to the Persian Gulf, but did develop illnesses similar to other veterans who had shots and other toxic exposures in theater.
- Hundreds of service personnel have reported adverse reactions, some severe and life threatening.
- There have been no studies regarding the long-term effects of the anthrax vaccine.

- The DOD contracts with one company, Emergent BioSolutions, Inc., which has had issues meeting FDA standards at their production facility.

Following is a link to Dr. Meryl Nass' report to the International Public Conference on Vaccination, September 10, 2000: <http://www.mercola.com/2000/oct/29/anthrax.htm>

This article provides background information on the anthrax vaccine and the series of ethically-questionable practices by the FDA in approving and the DOD in using it.

Mandatory Vaccination: In 1998, DOD made the vaccine program mandatory for all 2.4 million active duty, reserve, and guard troops. This program is still highly controversial for the reasons listed above. From the beginning of the order, military personnel have refused to take the shots, and many more resigned or retired rather than face it. For news reports concerning refusals, see:

<http://www.washingtonpost.com/ac2/wp-dyn/A28133-2004Mar26> and,

http://www.prisonplanet.com/articles/september2007/170907_b_anthrax.htm

Synthetic Squalene: Another issue that damages DOD's credibility is the possibility that an experimental delivery vaccine booster (adjuvant) was used in anthrax vaccines during the Gulf War. General Accounting Office (GAO) records indicate that the DOD may have used synthetic squalene in some vaccines, which is not an FDA approved adjuvant.

Some Gulf War veterans have long suspected that the use of synthetic squalene in the anthrax shot is the root cause of their ailments. **Dr. Pamela Asa** (Tulane University) and her colleagues created a test to detect antibodies to squalene and discovered that all sick Gulf War veterans tested had these antibodies; no one in the control group had the antibodies. GAO reports indicated that resolution of squalene issues would require cooperation from the Pentagon, which was not forthcoming. After years of total denial about squalene, the FDA discovered squalene in all eight anthrax lots tested in 1999. This information was revealed in a House Government Reform Committee hearing on 3 October 2000 in a 3-year report from Representative Metcalf (State of Washington) who was retiring. The *Washington Times* weekly news magazine "Insight on the News" covered the entire history of the squalene controversy, containing this poignant statement by an unnamed FDA official: "Something is wrong when we find a contaminant in the vaccine [lots tested] that shouldn't be there," an FDA official tells Insight. "That tells me an investigation should have been launched. It wasn't, because of pressure, and that's not right; this vaccine should not be used until DOD finds out how squalene got into those tested batches, whether other batches are contaminated and the health consequences from the contamination."

In January 2003, anthrax vaccine vials washed up in West Bay, Dorset, United Kingdom. Suspicions were very strong that deploying British service members dumped thousands of anthrax vaccine vials overboard as they proceeded to the current Iraqi

conflict. An independent British lab (SAL) tested some of the vials and discovered the presence of synthetic squalene. This is considered irrefutable proof of illegal experimentation on service members by the “chain of command.” (**Gary Matsumoto**, “*Vaccine A. The covert government experiment that’s killing our soldiers and why GI’s are only the first victims*”. Basic Books, 2004).

Neither Congress nor the DOD have made significant moves to clear up the question of squalene in the vaccine. See:
http://www.jamesmadisonproject.org/press.php?press_id=6.

The current vaccine, according to Matsumoto’s research is patented to include the squalene adjuvant. NGWRC continues to take every opportunity to shine light on this vaccine, hoping to attain recognition, diagnosis, and treatment for Gulf War veterans, and better force protection for the future.

Reactions: Following are a few of the more than 2000 documented short term adverse reactions reported by recipients of the anthrax vaccine to the FDA’s Vaccine Adverse Event Reporting System (VAERS):

- Extreme fatigue.
- Local pain at injection site with swelling and pain extending into other body parts.
- Muscle and body weakness.
- Dizziness.
- Heart failure.
- Nausea and vomiting.
- Fever.
- Blurred vision.
- General malaise.

Documented long-term side effects reported by some recipients of the anthrax vaccine include:

- Extreme fatigue.
- Concentration and memory impairment.
- Dizziness.
- Joint and muscle pain.
- Nausea.
- Muscle and body weakness.
- Blurred vision.
- General Malaise.
-

Status of Investigations and Epidemiological Research – On 29 June 2002, the Assistant Secretary of Defense for Health Affairs, Dr. William Winkenwerder announced the resumption of mandatory anthrax vaccine shots for service members after a year hiatus caused by a quarantine of contaminated lots and the inability of the manufacturer to get FDA licensure for its facility. After the shots resumed in earnest in November/December 2002, the NGWRC received several calls per week from troops, their family members, or the media, on the third major military use of anthrax shots

(Anthrax Vaccine Adsorbed, or AVA). This ongoing issue remains unresolved for many veterans and military personnel.

The following subtopics report on developments in important areas relevant to anthrax shot concerns of Gulf War veterans, their families, and current service members.

Lawsuits: Ruling against military personnel who refused to take the anthrax shot because of its inappropriate FDA classification, 2004:

<http://query.nytimes.com/gst/fullpage.html?sec=health&res=9A06E0DB1131F93BA35752C0A9629C8B63>.

Groups with severe illness after receiving anthrax shot:

<http://www.sskrplaw.com/publications/newguinea.html>

A Qui Tam (whistleblower) lawsuit against the manufacturer for making false claims about the anthrax vaccine that caused personal harm to the plaintiff's job:

<http://www.pubklaw.com/rd/courts/03-1841.pdf>,

http://www.arentfox.com/publications/index.cfm?fa=legalUpdateDisp&content_id=1064.

Press Coverage: Press coverage regarding problems within BioPort, the sole US manufacturer of the vaccine is available at

<http://www.wired.com/politics/law/news/2001/10/47410#>. Background information on Bioport can be obtained at <http://educate-yourself.org/vcd/vcdanthraxvacsanfu10oct01.shtml>.

Petition to the FDA: On October 12, 2001, several key opponents of the Anthrax Vaccine Immunization Program (AVIP) policy (service members, attorneys and a retired FDA official) filed a petition with the FDA to declare the vaccine unsafe, misbranded, or ineffective, as well as adulterated and experimental given the DOD's use for inhalation exposure. Additionally, the petition requested the FDA enforce its regulations prohibiting distribution of an adulterated product to government or commercial markets and to revoke the manufacturer's license for such violations.

<http://www.fda.gov/ohrms/dockets/dailys/01/Oct01/101501/cp00001.pdf>

In their October 2002 response to the petition, FDA admitted the current vaccine's license is improper and that the FDA had not enforced its own regulations. In spite of these glaring admissions, the FDA refused to grant any of the petitioner's requests, thus setting the stage for an appeal or action in federal court, both of which are currently under consideration.

<http://www.fda.gov/OHRMS/DOCKETS/dailys/02/Sep02/091102/80027a9f.pdf>

A petition to BioPort to destroy quarantined stock:

<http://www.petitiononline.com/robi2662/petition.html>.

More information at <http://www.mvrd.org/AVN/fdahal~1.htm>.

VA Developments: On 14 May 2002, the VA General Counsel issued a legal finding specifically establishing service-connected disability solely for the anthrax vaccine by redefining the meaning of the word "injury": http://www.va.gov/ogc/docs/2002/PREC_4-2002.doc.

Citation: "If evidence establishes that an individual suffers from a disabling condition as a result of administration of an anthrax vaccination during inactive duty training, the individual may be considered disabled by an "injury" incurred during such training as the term is used in 38 U.S.C. § 101 (24), which defines "active military, naval, or air service" to include any period of inactive duty training during which the individual was disabled or died from an injury incurred or aggravated in line of duty. Consequently, such an individual may be found to have incurred disability in active military, naval, or air service for purposes of disability compensation under 38 U.S.C. § 1110 or 1131."

A number of cases involving Gulf War and post-Gulf War veterans are resulting in award of disability ratings, thus indicating that the VA is following through on its position.

GAO/Congress: Dr. Sue Bailey, Assistant Secretary for Health Affairs, Department of Defense, reported to House Subcommittee on National Security, Veterans' Affairs and International Relations of the Committee on Government Reform, March 24, 1999. Dr. Bailey subsequently participated in a press conference: http://www.fas.org/spp/starwars/program/news00/t02172000_t0217asd.htm.

Dr. Bailey was named to the Board of Directors of BioPort on June 14, 2007: <http://www.smartmoney.com/wsj/briefingbooks/doPrint.cfm?page=executives&origin=wsj&symbol=EBS&type=usstock>.

Women's/Birth Issues: Early in the AVIP program, the Army injected 600 medical workers at its Tripler Army Medical Center in Hawaii with the anthrax shot. Statistics there showed women experiencing adverse reactions at twice the rate of men. The Army's top immunologist declared at a May 1999 Ft. Detrick meeting that attendees might regret pushing this vaccine, given the women's immune system differences. This warning became reality as the September 2001 issue of *Self* magazine documented several severe cases of women's reactions.

Also in 1999, three congresswomen wrote Secretary of Defense Cohen requesting shots be made voluntary for women (<http://www.anthraxvaccine.org/congwom.htm>).

These concerns were further verified when *The Wall Street Journal* and *Army Times* published stories on Navy studies indicating problems for women: <http://www.ph.ucla.edu/epi/bioter/anthraxvacbirthdefects.html>

Other Resources:

http://anthraxvaccine.blogspot.com/2007_07_01_archive.html#6806076506901379532;

<http://www.gulfwarvets.com/anthrax.htm>,

<http://www.thepowerhour.com/articles/anthrax.htm>

For legal arguments, see:

<http://www.law.duke.edu/shell/cite.pl?50+Duke+L.+J.+1835#H1N7>.

What the DOD says: <http://www.anthrax.mil/whatsnew/FDAorder.asp>

What JAMA says: <http://jama.ama-assn.org/cgi/content/full/282/22/2104> , read to the bottom to find out the authors' credentials.

IV. DEPLETED URANIUM

Depleted Uranium (DU) is the source of intense controversy. A radioactive derivative of the process of creating nuclear fuel for power plants, it is used in weaponry and as a shield on the exterior of battle tanks. The controversy is between the VA, DOD and some in the scientific community, who declare that DU is safe to use and economically sound -- and a few vocal advocates stating that DU is hazardous, toxic, and environmentally disastrous. We will attempt to present information that will help veterans decide which side they believe.

The U.S. government has stated that exposure to .01 gram in one YEAR can cause health problems:

"The Army conservatively treats its tank crews and maintenance personnel as members of the general public with respect to radiation exposure. This means, under the current exposure limits specified by the NRC at 10 CFR 20.1301, that the Army must assure that individual crew members are not exposed to radiation fields in excess of 0.002 rem in any one hour and no more than 0.1 rem in any one year."---
Technical Report, Environmental Assessment Of the Abrams Heavy Armor System April 1998.

However, a GulfLink website states the following: "Fortunately, it's really impossible to breathe in enough depleted uranium to do you any serious harm," [Naomi H.] Harley says. "If you work in an industry that uses uranium, you're allowed concentrations in the air of 0.2 of a milligram per cubic meter, which means in a work day you might inhale two milligrams. This is the kind of air concentration you find right near [an armored vehicle] where a DU round hits it. When you breathe it in, you breathe in some uranium, but the risk is so low it's very hard to calculate." Resource:
http://www.gulflink.osd.mil/news/na_harley_03jan00.html

Defenders of the use of DU in armaments claim, perhaps truthfully, that the alpha radiation emitted by the Uranium²³⁸ doesn't go far enough to do damage to living organisms (mainly, people). However, radiation does not have far to travel when the U²³⁸ has been

inhaled and lodges permanently in the lungs. Presumably, ingested DU does not accumulate, and passes from the body in a short period of time, limiting exposure. How it could be ingested without being inhaled is a question for research.

Each DU round fired by U.S. M-1 series tanks creates as much as 3,100 grams of ultra-fine radioactive/heavy metal dust upon impact, which is insoluble, easily inhaled, and may remain in the body for years, gradually going from the lungs into other organs and skeletal structures. This is by far the most serious form of exposure. This is also the least studied type of exposure among military scientists.

Here is what the **National Institutes of Health** said about depleted uranium:

“During the Gulf War, several military regulations required that soldiers’ medical records should be noted if they entered areas known or suspected to be contaminated by radioactive materials, and that those soldiers should be provided medical tests to determine the level of exposure, if any. The DOD failed to follow the law, and there no known records of the length or level of DU exposures. As with other Gulf War exposures, the lack of reliable data remains a serious obstacle to researchers investigating DU poisoning.”

In 1999, the VA launched a DU testing program, and veterans who believe they may have been exposed should call the VA at (800) PGW-VETS (800-749-8387): Veterans’ Special Issues Helpline) or the DOD at (800) 472-6719 for further information. If the VA or DOD do not respond to your call within one week, write a letter to your military commander or your local VA Medical Center and request the DU test. Although testing results for the presence of DU in urine may be ineffective after so many years, the NGWRC strongly encourages participation in this testing program.

Part of DU testing involves a lengthy questionnaire, and the results of the questionnaire may force the VA or DOD to presume you were exposed, even if the test results are negative. Many soldiers were never informed that the shrapnel in their bodies was DU.

Status of Investigations and Epidemiological Research – DU exists in large quantities and its use in munitions relieves governments of their fiscal and legal responsibilities to properly store it.ⁱ In addition, DU’s extreme density (1.7 times that of lead), pyrophoricity (it burns when it fragments), and resistance to deformation (when alloyed with a small amount of titanium) enable it to effectively penetrate tank armor.ⁱⁱ The US Navy is, however, phasing out its use of small caliber DU rounds (20mm). It continues to be used in the present Iraqi and Afghanistan Wars.

Exposure to DU armor and/or penetrators poses the greatest potential to cause health problems among people who:

- **Are/were in a friendly fire incident involving DU rounds.**
- **Breathe smoke or dust from a burning vehicle hit by DU rounds.**
- **Eat food or drink water contaminated by DU dust.**

- **Climb on or enter a vehicle or bunker hit by DU rounds.**
- **Collect, handle, or participate in cleaning up spent DU fragments or penetrators.**
- **Breathe smoke or dust from a fire involving DU armor and/or rounds, such as the July 1991 fire at Doha, Kuwait.**
- **Treat those injured by DU shrapnel or covered with DU dust; and**
- **Maintain or repair vehicles struck by DU rounds.**

Recently published and/or released information from the Armed Forces Radiobiology Research Institute (part of the DOD), plus findings from a VA follow-up program at the Baltimore, Maryland VA, show evidence that:

- **In animal studies, DU settles in the bone, brain, lung, muscle, kidney, liver, and testicles.**
- **In animal studies, DU transforms cells into a tumorigenic phenotype.**
- **DU cells form tumors in mice.**
- **In animal studies, DU is mutagenic.**
- **In animal studies, DU is associated with reduced litter size.**
- **From the results of animal studies, strong evidence exists to support a detailed study of potential that DU is associated with cancer.**
- **In follow-up on Gulf War veterans, DU was found in semen; and**
- **In follow up on Gulf War veterans, elevated DU in urine is linked to increased neurological problems.**

Information on this can be found at the IOM website.

<http://www.iom.edu/Reports/2008/Epidemiologic-Studies-Veterans-Exposed-Depleted-Uranium.aspx>

Laboratory studies on rats indicate short-term effects include kidney damage, while long-term effects may include cancer, central nervous system problems, immune system disorders and reproductive effects.ⁱⁱⁱ

Few humans exposed to DU have been studied, therefore little is known about the effects DU has had or may have in the future on exposed populations. The US government claims it has not found evidence of significant health effects caused by DU in a study of a few dozen Gulf War veterans,^{iv} although Pentagon spokesmen have lied about the existence of cancer among these veterans.^v There have been many claims made about DU causing a large number of serious health effects in Iraq, the Balkans, and Afghanistan, but these claims have not been confirmed by credible, independent sources.

The International Atomic Energy Agency released a report on 13 June 2003 regarding DU in Kuwait <http://www.iaea.org/NewsCenter/News/2003/13-571089.shtml>

World Health Organization (WHO) released a report on DU use in Kosovo:
http://www.who.int/ionizing_radiation/pub_meet/en/Report_WHO_depleted_uranium_En_g.pdf

WHO studies of cancer rates in Iraq since the 1991 Gulf War apparently never occurred:
<http://www.iacenter.org/depleted/who.htm>

http://news.bbc.co.uk/1/hi/world/middle_east/1506151.stm

DU may also contaminate soil, water, and air, as well as plant and animal life. The extent of the contamination and its risk to public health depend on the quantity and size of the DU released its local concentration, and environmental conditions.

The use of DU munitions by the US and its allies in the war in Afghanistan remains unclear. Claims about the use of DU munitions in Afghanistan have neither been confirmed by the US military, nor verified by independent investigations. Nonetheless, it appears likely that US forces used some DU munitions, and the Taliban and/or al Qaeda may have possessed DU rounds.^{vi, vii, viii, ix, x, xi, xii, xiii.}

The following articles are very informative about DU:

http://www.thepeoplesvoice.org/cgi-bin/blogs/voices.php/2007/10/17/depleted_uranium_a_8211_far_worse_than_9_11

http://www.sourcewatch.org/index.php?title=Depleted_Uranium

DU in the Balkans:

<http://www.isn.ethz.ch/isn/Current-Affairs/Security-Watch/Detail/?id=53886&lng=en>

<http://intellibriefs.blogspot.com/2007/10/depleted-uranium-depleted-health.html>

V. DISTRIBUTION AND DISCLAIMER

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ⁱ See e.g., Joint Technical Coordinating Group for Munitions Effectiveness (JTCCG/ME), Ad Hoc Working Group for Depleted Uranium, "Special Report: Medical and Environmental Evaluation of Depleted Uranium," (Richland, WA, 1974) Vol. I: 1, 2.

ⁱⁱ The Royal Society, The health hazards of depleted uranium munitions, Part I, (London, 2001) p. 2; R. Pengelley, "The DU Debate: what are the risks," *Jane's Defence Weekly*, 15 January 2001).

ⁱⁱⁱ See D.E. McClain, et al, "Biological effects of embedded depleted uranium (DU): summary of Armed Forces Radiobiology Research Institute research," The Science of the Total Environment (2001) 274: 117; Fletcher F. Hahn, Raymond A. Guilmette, and Mark D. Hoover, "Implanted Depleted Uranium Fragments Cause Soft Tissue Sarcomas in the Muscles of

Rats,” *Environmental Health Perspectives* (2002) 110: 51; D.E. McClain, “Project Briefing: Health Effects of Depleted Uranium,” U.S. Armed Forces Radiobiology Research Institute (Bethesda, MD, 1999).

^{iv} See e.g., U.S. Department of Defense, Defense Health Support Directorate, “DU – Health Concerns,” undated, http://www.deploymentlink.osd.mil/du_library/health.shtml.

^v See Dan Fahey, “Depleted Legitimacy: The U.S. Study of Gulf War Veterans Exposed to Depleted Uranium,” 4 May 2002, <http://www.ngwrc.org/conf2002/NGWRC-DU-Atlanta.pdf>.

^{vi} The reported dates of A-10 attacks are March 3-6, May 21, August 25, September 20, November 15, and December 20, 2002, and February 12, 2003. U.S. Department of Defense News Transcript, “DOD News Briefing – ASD PA Clarke and Brig. Gen. Rosa,” (5 March 2002). Evan Thomas, “Leave No Man Behind,” *Newsweek* (18 March 2002) 26; Thom Shanker, “U.S. tells how rescue turned into fatal firefight,” *The New York Times* (6 March 2002) A1; Peter Baker, “Afghans Strengthen U.S. Force,” *The Washington Post* (8 March 2002) A1. Eric Schmitt, “American Planes Foil an Attack on an Airfield in Afghanistan,” *The New York Times* (22 May 2002) A9. Cesar G. Soriano, “U.S. to stay in Afghanistan indefinitely,” *USA Today* (25 August 2002). Associated Press, “U.S. base in Afghanistan attacked,” (20 September 2002). Associated Press, “U.S. Bases Under Fire,” (15 November 2002). Eric Schmitt, “Paratrooper from New Jersey dies in Afghan firefight near Pakistan border,” *The New York Times* (22 December 2002). Carlotta Gall, “Afghans report 17 civilian deaths in US-led bombing,” *The New York Times* (12 February 2003).

^{vii} See Jeanette Steele, “Red Platoon’s light armor passes the test,” *The San Diego Union-Tribune* (20 December 2001) A5.

^{viii} Bill Glauber, “Marines move out of shadows and into fray,” *The Baltimore Sun* (4 November 2001) 15A; “Yuma-based Marines who flew combat missions over Afghanistan return home,” *The Associated Press* (3 March 2002).

^{ix} Dai Williams, “Mystery Metal Nightmare in Afghanistan?” (2002).

^x Dai Williams, quoted on Al Jazeera TV (transcript via BBC Worldwide Monitoring), 15 January 2003.

^{xi} The figure of 1,000 tons of DU is based on completely unsubstantiated claims about the quantity of DU contained in various missiles and bombs. For example, this figure is based on an assumption that Tomahawk cruise missiles, which have a total in-flight weight of 2,900 lbs, contain 1,000 pounds of DU in addition to a 1,000 high explosive warhead, the guidance system, fuel, rocket engine, outer shell, wings, and other components. This is not only highly improbable, but unsubstantiated: the proponents of this claim offer no evidence to support their estimates on quantities of DU in missiles and bombs.

^{xii} U.S. Department of Defense News Briefing, “Sec. Rumsfeld and Gen. Myers,” (16 January 2002)

http://www.defenselink.mil/news/Jan2002/t01162002_t0116sd.html; U.S. Department of Defense News Transcript, “Secretary Rumsfeld Roundtable with Radio Media,” (15 January 2002)

http://www.defenselink.mil/news/Jan2002/t01152002_t0115sdr.html; U.S. Department of Defense News Transcript, “Secretary Rumsfeld Interview with Baltimore Sun,” (27 December 2001)

http://www.defenselink.mil/news/Dec2001/t12282001_t1227sun.html; See also “Current Issues – Depleted Uranium Weapons in Afghanistan,” (10 February 2002) <http://www.antenna.nl/wise/uranium/dissaf/html>.

^{xiii} Phone conversation with Captain Rico Player, U.S. Department of Defense Public Affairs (703.697.5131), 20 March 2002.