

The background of the slide is a close-up, slightly blurred image of the American flag, showing the stars and stripes in a wavy pattern. The colors are vibrant, with a deep blue, bright red, and clean white.

Serving Those Who Served: Improving Community Care for Our Nation's Veterans

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Disclosures

I have nothing to disclose.





Objectives

1. Identify potential health risks associated with exposures during military service
2. Recognize the importance of assessing military affiliation among patient population
3. Find resources for further assistance in evaluating veteran patients



Vietnam Veterans of America

Congressionally chartered organization dedicated to Vietnam-era veterans and their families (501(c)(19))

- More than 86,000 members, in more than 650 chapters
- Membership eligibility: U.S. armed forces veterans who served on active duty (for other than training purposes)
 - in the Republic of Vietnam between February 28, 1961, and May 7, 1975, or
 - in any duty location between August 5, 1964, and May 7, 1975.

“Never again will one generation of veterans abandon another”



Vietnam Veterans of America

VVA strives to achieve the following:

- Aggressively advocate on issues important to veterans
- **Seek full access to quality health care for veterans**
- **Identify the full range of disabling injuries and illnesses incurred during military service**
- **Hold government agencies accountable for following laws mandating veterans health care**
- Create a positive public perception of Vietnam veterans
- Seek the fullest possible accounting of America's POWs and MIAs
- **Support the next generation of America's war veterans**
- Serve our communities



Veterans Health Council

“Improving veterans health through information and education”

The Veterans Health Council

- informs veterans of all eras and their families about health issues and available benefits
- **educates health care providers about health issues associated with military service**
- advocates on behalf of veteran health care initiatives

Environmental Health



Branch of public health that:

- focuses on how the environment (natural and built) affects human health





Why is this topic important for PAs?

Less than 20% of veterans receive all of their care from the Veterans Health Administration (VHA)

~ 9 million veterans are enrolled in VA health care

~ 6.3 million veterans seek care from VHA each year

total veteran population = ~ 19.2 million

There's a good chance you are serving veterans without realizing it -

Have you asked your patients if they ever served in the military?



Military Toxic Exposures



Chemical and Biological Warfare Testing

Medical Research Programs

- Army Chemical Corps medical research program (1952-1975)
 - > 250 chemicals including nerve agents, nerve agent antidotes, hallucinogens, irritants, blistering/vesicant agents, stimulants
- “Operation Whitecoat” (1954-1973) biodefense medical research program
 - Q fever, tularemia, staphylococcal enterotoxins and sand fly fever
- > 7,000 participants

Project 112/SHAD (1962-1973): land based and sea based warfare tests

- chemical included sarin, VX, tabun, soman
- biological included *Coxiella Burnetii*, *Francisella tularensis*, *Staphylococcal Enterotoxin B*
- ~6000 participants (not all were informed)

Army required to provide medical care for CB testing volunteers (1942 - 1975)



Chemical and Biological Warfare Testing

WWII - Sulfur mustard, nitrogen mustard, lewisite

- ~60,000 military personnel “volunteered” for mustard agent tests
 - ~4,000 severe - gas chambers or field exercises
- Presumptive diseases
 - cancers: acute nonlymphocytic leukemia, nasopharyngeal, laryngeal, lung (except mesothelioma), squamous cell carcinoma (of the skin)
 - chronic conjunctivitis, keratitis, corneal opacities, scar formation
 - chronic laryngitis, bronchitis, emphysema, asthma
 - chronic obstructive pulmonary disease

Presumptive disease: VA presumes that the listed disabilities were caused by the specified exposure during military service (in these cases, veterans do not have to prove the connection between an exposure and a listed health effect)



Radiation Exposure

Nuclear weapons testing

- atmospheric: primarily in Nevada and the Pacific Ocean (1945 - 1962)
 - Enewetak Proving Ground (Enewetak Atoll) 43 tests, 1948-1958; clean up (May 1977-May 1980)
- underground
 - Amchitka Island, Alaska (prior to Jan. 1, 1974)
 - gaseous diffusion plants prior to Feb 1, 1992 in Paducah, Kentucky; Portsmouth, Ohio; or K25 in Oak Ridge, Tennessee



(Gaffney, 1951) - *The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.*



Radiation Exposure

- Nuclear accidents
 - aircraft collision over Palomares, Spain (Jan 17, 1966) (plutonium release)
 - McMurdo Station Antarctica nuclear power plant (1964-1973) leak
 - Fukushima nuclear accident (Mar 11, 2011)
- occupation of Hiroshima and Nagasaki (Aug. 6, 1945 - July 1, 1946)
- prisoners of war in Japan during World War II
- depleted uranium (after 1990)
 - munitions
 - tank armor
- occupational exposures
 - nuclear submarine or ship crew
 - accident cleanup teams
 - x-ray or dental technicians
- radiation therapy



Ionizing Radiation Presumptives

Veterans who participated in certain atmospheric or underground nuclear weapon testing, participated in the occupation of Hiroshima and Nagasaki (Aug. 6, 1945 - July 1, 1946), or were prisoners of war in Japan during World War II

Presumptive diseases:

- cancers
 - (bile ducts, bone, brain, breast, colon, esophagus, gallbladder, liver (primary site, but not if cirrhosis or hepatitis B is indicated), lung (including bronchioloalveolar cancer), pancreas, pharynx, ovary, salivary gland, small intestine, stomach, thyroid, urinary tract (kidney/renal, pelvis, urinary bladder, and urethra)
 - leukemia (except chronic lymphocytic leukemia)
 - lymphomas (except Hodgkin's disease)
 - multiple myeloma (cancer of plasma cells)



Agent Orange Herbicide

During Vietnam War, U.S. military used more than 19 million gallons of herbicides (defoliation and crop destruction)

contaminated w/ 2,3,7,8-TCDD (most toxic of all the dioxins)

Veterans who served:

- in Vietnam (Jan. 9, 1962 - May 7, 1975)
- in/near Korean demilitarized zone (DMZ) (April 1, 1968 - August 31, 1971)

are presumed to have been exposed



VA042084, Admiral Elmo R. Zumwalt, Jr. Collection



U.S. Government photograph



Agent Orange Herbicide

Presumptive diseases:

- cancers: chronic B-cell leukemias, Hodgkin's Disease, Non-Hodgkin's lymphoma, multiple myeloma, prostate, respiratory (includes lung cancer), soft tissue sarcomas (other than osteosarcoma, chondrosarcoma, Kaposi's sarcoma, or mesothelioma)
- ischemic heart disease
- diabetes mellitus type 2
- Parkinson's disease
- AL amyloidosis
- peripheral neuropathy, early-onset (within one year of exposure)
- porphyria cutanea tarda (within one year of exposure)
- chloracne (or similar acneform disease) (within one year of exposure)
- UNDER CONSIDERATION: bladder cancer, hypothyroidism, Parkinson's-like tremors, hypertension



Gulf War

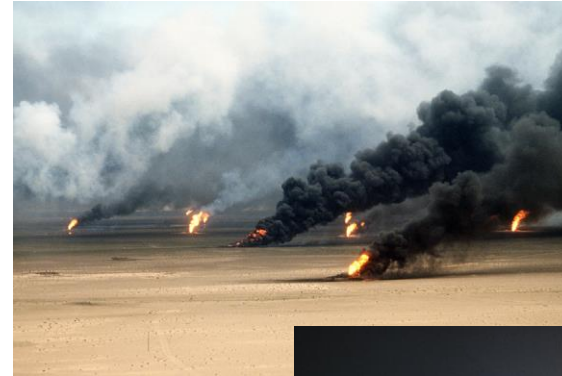
Blast injuries

- traumatic brain injury (TBI)
- toxic embedded fragments
- depleted uranium (munitions and tank armor)

Chemical Weapons

- Khamisiyah ammunition storage area detonation
 - accidental sarin/cyclo-sarin nerve agent release (March, 1991)
- OIF chemical warfare agents
 - mustard agents or sarin from munitions demolition

Kuwaiti Oil Well Fires



Mcleod, 1991





Gulf War

Burn Pits

- Large area (many were several acres large) for open-air combustion of trash
- Any waste generated from military sites (predominantly in Iraq and Afghanistan)
 - Potential items burned: chemicals, paint, medical and human waste, metal/aluminum cans, munitions and other unexploded ordnance, petroleum and lubricants, plastics and Styrofoam, rubber, wood, etc

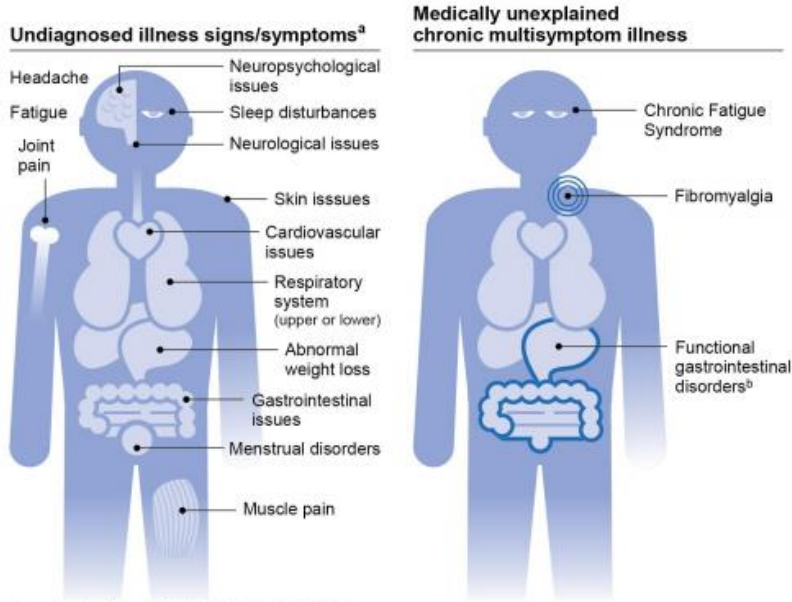


28PAD, 2004 - The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

- Potential pollutants generated: dioxins, particulate matter, PAHs, VOCs, carbon monoxide, hexachlorobenzene, ash



Gulf War Illness



Source: GAO analysis of 38 C.F.R. § 3.317, | GAO-17-511

Note: The symptoms of undiagnosed illness and the chronic multisymptom illnesses are examples—not an exhaustive list—of medical issues that veterans with Gulf War illness can be compensated for with a presumption of being service connected.

^aThe symptoms listed below may be manifestations of either undiagnosed illness or medically unexplained chronic multisymptom illness. For simplicity, these symptoms are listed only once, under the category of undiagnosed illness.

^bIrritable bowel syndrome is one common type of functional gastrointestinal disorder.

Qualifiers for presumptive service connection include

- active duty service in the Southwest Asia theater of operations (August 2, 1990 - present).
- a chronic disability resulting from an undiagnosed illness and/or a medically unexplained chronic multisymptom illness that manifested during active duty or to a degree of 10 percent or by December 31, 2021

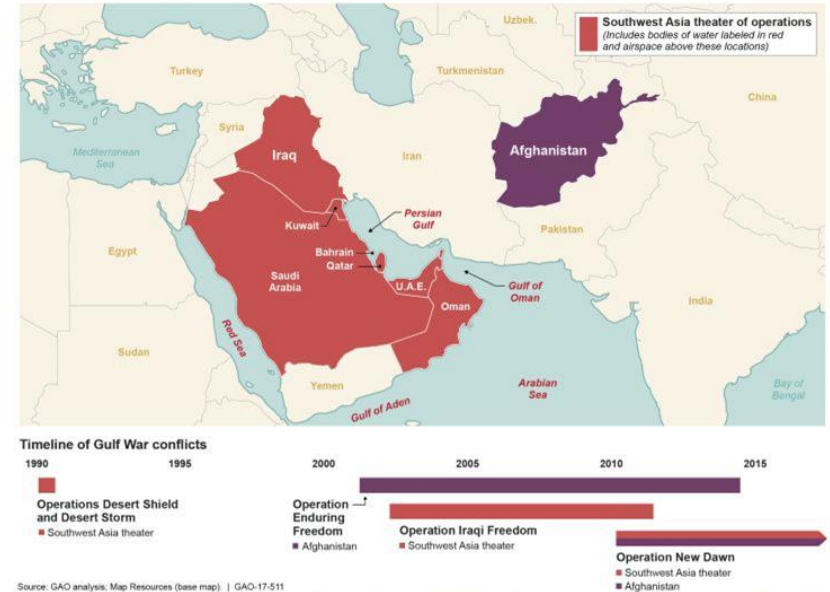


Gulf War Illness

Southwest Asia theater of operations:

- Iraq
- Kuwait
- Saudi Arabia
- Neutral zone between Iraq and Saudi Arabia
- Bahrain
- Qatar
- United Arab Emirates
- Oman
- Gulf of Aden
- Gulf of Oman
- Persian Gulf
- Arabian Sea
- Red Sea
- airspace above all of these locations

Figure 1: Locations and Timeline of Major U.S. Gulf War Conflicts





Other Exposures

Infectious Diseases (malaria, brucellosis, campylobacter jejuni, coxiella burnetii (Q Fever), tuberculosis, nontyphoid salmonella, shigella, visceral leishmaniasis, West Nile virus)

Prophylactics

- Pyridostigmine bromide (PB) anti-nerve agent pill
- vaccinations (yellow fever, typhoid, cholera, hepatitis B, meningitis, whooping cough, polio, tetanus, anthrax, smallpox, botulinum toxoid)
- antimalarials (mepacrine, chloroquine, primaquine, **mefloquine**, malarone, doxycycline, tafenoquine (recently approved))

WARNING

Mefloquine may cause neuropsychiatric adverse reactions that can persist after mefloquine has been discontinued. Mefloquine should not be prescribed for prophylaxis in patients with major psychiatric disorders. During prophylactic use, if psychiatric or neurologic symptoms occur, the drug should be discontinued and an alternative medication should be substituted (see WARNINGS).



Other Exposures

- Temperature
 - cold (frostbite, non-freezing cold injuries, immersion foot, hypothermia)
 - heat (heat stroke, heat exhaustion, sunburn)
- Noise
 - gunfire, explosives, rockets, heavy weapons
 - aircraft
 - machinery
- Vibration
 - whole body (operating heavy equipment like trucks, helicopters, and ships)
 - hand-arm vibration (using power tools tools)

Tinnitus (#1) and hearing loss (#2) are the most prevalent service-connected disabilities.



Other Exposures

- Insecticides
 - organochlorines (DDT, lindane)
 - organophosphates (chlorpyrifos, diazinon, malathion, dichlorvos)
 - carbamates (propoxur, methomyl)
 - pyrethroids (permethrin)
- Fuels (diesel, JP-4, JP-5, JP-7, JP-8, Jet A)
- Asbestos
 - occupational exposures (prior to early 1980's): mining, milling, shipyard work, insulation work, demolition of old buildings, carpentry, construction, manufacturing and installation of flooring/roofing.
 - Building damage in Iraq/other SW Asia countries



Other Exposures

- Solvents (including acetone, benzene, tetrachloroethylene (PCE/PERC), trichloroethylene (TCE), toluene, xylenes)
 - occupational exposures
 - Camp Lejeune, NC water contamination

Two on base water wells (shut down in 1985) contained

- trichloroethylene (TCE)
- perchloroethylene (PCE)
- benzene
- vinyl chloride

Veterans who served on active duty at Camp Lejeune \geq 30 days (January 1, 1957 - December 31, 1987) may be eligible for health care.





Camp Lejeune Health Care

Presumptive Conditions

- adult leukemia
- aplastic anemia and other myelodysplastic syndromes
- bladder cancer
- kidney cancer
- liver cancer
- multiple myeloma
- non-Hodgkin's lymphoma
- parkinson's disease

Health Care Provision for veterans ***and their family members***

- cancers - bladder, breast, esophageal, kidney, lung, leukemia, multiple myeloma, non-Hodgkin's lymphoma
- female infertility
- hepatic steatosis
- miscarriage
- myelodysplastic syndromes
- neurobehavioral effects
- renal toxicity
- scleroderma



Aqueous Film Forming Foam (AFFF)

Used to fight class B (petroleum based) fires since 1970

“Legacy foams” contained PFOS and/or PFOA - Links to health effects:

- kidney and testicular cancer
- increased cholesterol levels
- decreased vaccine response (weakened immunity)
- increased risk of thyroid disease
- decreased fertility in women
- increased risk of pregnancy induced hypertension (high blood pressure)
- lower infant birth weights

Current foams **STILL** contain PFAS - may have similar health effects



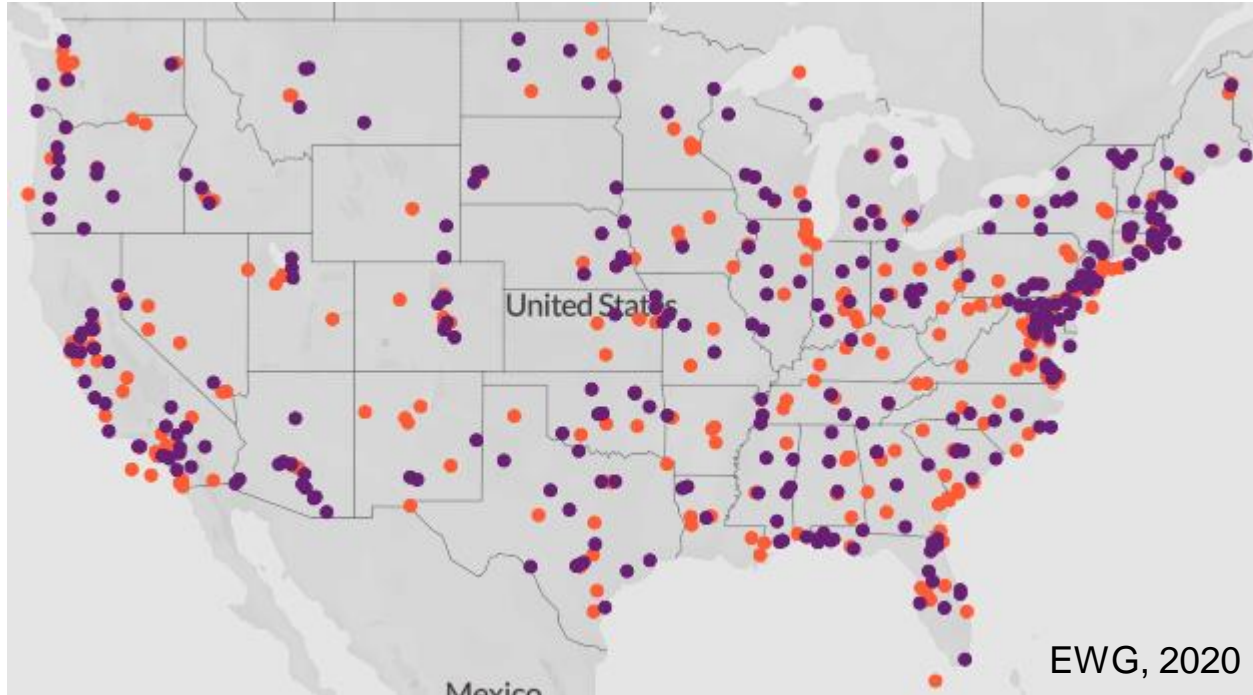
Decker, 2019



Polach, 2006



PFAS Contamination



*orange = suspected, purple = confirmed; also sites in Alaska and Hawaii
Image used with permission*

- confirmed or suspected at 678 military installations (image on left)
- confirmed in tap water or groundwater at 328 of the military installations

<https://bit.ly/2yOV6l3>



Veteran Health Care



Veterans Health Administration (VHA)

Nation's largest integrated health care system, part of the Department of Veterans Affairs (VA)

Four statutory missions:

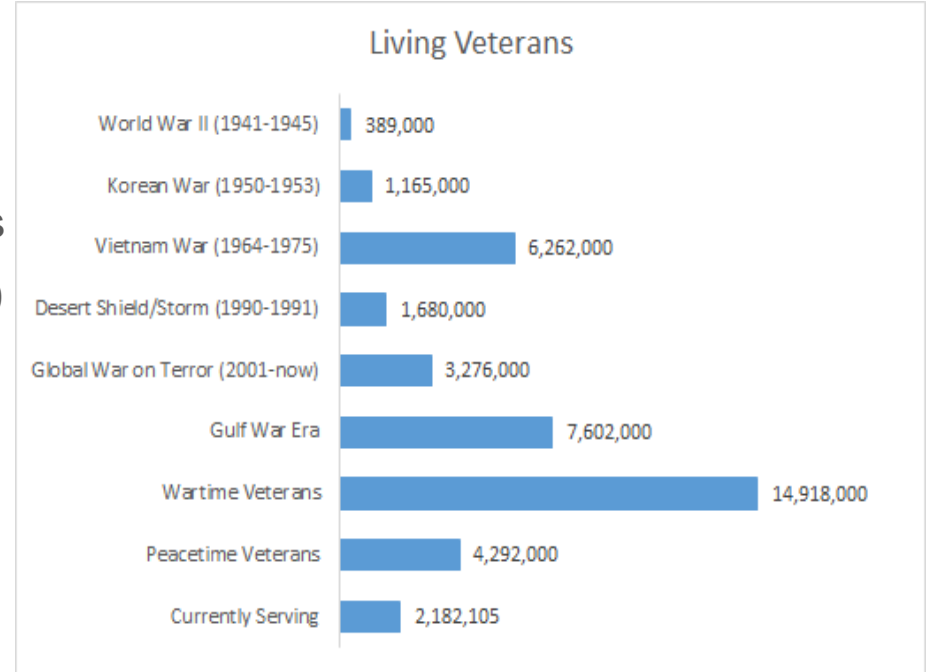
- develop, maintain, and operate a national health care delivery system for eligible Veterans
- **administer a program of education and training for health care personnel**
- conduct health care research
- provide contingency support for Department of Defense (DoD) and Department of Health and Human Services (HHS) during times of war or national emergency



Veterans Health Administration (VHA)

VHA:

- appropriation of ~\$80.6 billion (*FY 2020*)
- ~ 347,000 full-time equivalent employees
- 143 hospitals, 1,241 outpatient sites, 300 Vet Centers (*Dec 2018*)
- ~ 6.33 million unique veteran patients (*total veteran population ~19.2 million*)





VA Health Care Eligibility

Basic Criteria:

- meets the statutory definition of a “veteran”
 - served in the active military, naval, or air service
 - discharged or released under conditions other than dishonorable
 - military discharges include honorable, general (under honorable conditions), other-than-honorable, bad-conduct, and dishonorable
 - very limited eligibility for any services if do not meet this definition
- meets the statutory definition of “active duty” (full-time duty in the Armed Forces, other than active duty for training)
- served a minimum period of 24 months continuous active duty (*members of the Reserves and National Guard exempt under certain conditions*)



VA Health Care Eligibility

After basic eligibility criteria met, enrollment depends on one or more of the following:

- service-connected disability
- income level
- exposure to certain toxic substances and environmental hazards
- other factors
 - former prisoner of war (POW) status
 - Medal of Honor recipient
 - Purple Heart recipient



Service-connected Disability

A disease or injury resulting in a disability incurred or aggravated during military service

establishing that a disability is service-connected:

- direct service connection
- aggravation during service
- proximity (aka secondary disability)
- caused by medical care or vocational rehabilitation provided by the VA
- application of statutory presumptions

Service-connected disability rating

- assigned between 0% and 100% (10% increments) based on disease severity
- > 1 service connected disability: formula to determine combined rating



VA Priority Categories

- Category 1 (*no copays for medication*)
 - service-connected disabilities rated 50% or more disabling
 - determined by VA to be unemployable due to service-connected conditions
 - awarded the Medal of Honor
- Category 2 (*copays for medication for treatment of non service-connected conditions*)
 - service-connected disabilities rated 30% or 40% disabling
- Category 3 (*copays for medication for treatment of non service-connected conditions*)
 - former Prisoners of War (POWs)
 - awarded the Purple Heart
 - discharge from the military was for a disability incurred or aggravated in the line of duty
 - service-connected disabilities rated 10% or 20% disabling
 - awarded special eligibility classification under Title 38, U.S.C., Section 1151



VA Priority Categories

- Category 4 (*copays for medication for treatment of non service-connected conditions*)
 - receiving aid and attendance or housebound benefits
 - determined by the VA to be catastrophically disabled
- Category 5 (*copays for medication for treatment of non service-connected conditions*)
 - nonservice-connected disabilities and noncompensable service-connected disabilities rated 0% disabled with income limits
 - receiving VA pension benefits
 - eligible for Medicaid benefits



VA Priority Categories

- *Category 6 (copays for care and medication for treatment of non service-connected conditions)*
 - compensable service-connected disability rated 0% disabling
 - exposure to ionizing radiation during atmospheric testing or during the occupation of Hiroshima and Nagasaki
 - participation in Project 112/SHAD
 - service in the Republic of Vietnam between January 9, 1962, and May 7, 1975
 - active duty service at Camp Lejeune for at least 30 days between August 1, 1953, and December 31, 1987
 - service in a theater of combat operations after November 11, 1998, and discharged from active duty on or after January 28, 2003 (five years post discharge)
- Category 7 and 8 require copays for care and medication.



(Some) Covered Services

- medical, surgical, and mental health care, including care for substance abuse
- prescription and over-the counter drugs
- durable medical equipment and prosthetic and orthopedic devices
- home health services; hospice, palliative, and institutional respite care
- complementary and alternative medicine (CAM) therapies
- preventive care services
 - periodic medical exams, health and nutrition education
 - preventive services for mental health and substance abuse
 - vaccinations against infectious diseases
 - genetic counseling for disease inheritance
 - routine vision testing and care services



Veteran Community Care Program

criteria for which VA-eligible veterans can receive community care:

- a **service is not available** at the veteran's regular VA medical facility
- a **full-service VA medical facility does not exist** in their state/territory of residence
- **average drive time** to the VA medical facility **exceeds 30 minutes** (primary care, mental health care, and noninstitutional extended care services) **or 60 minutes** (specialty care)
- **appointment wait time** for the VA medical facility **exceeds 20 days** (primary care, mental health care, and noninstitutional extended care services) **or 28 days** (specialty care)
- the VA clinician agrees it is in the **veteran's best medical interest** to be referred to a community provider
- the veteran needs care from a VA medical service line that VA determines does not comply with **VA's quality standards**



Identifying veterans

Ask:

Have you ever served in the United States uniformed services, including the armed forces/military?

- This includes the Army, Navy, Marine Corps, Air Force, Space Force, Coast Guard, National Guard, Reserves, Public Health Service Commissioned Corps, and National Oceanic and Atmospheric Administration Commissioned Officer Corps



Health Care Provider Resources



Military Health History Pocket Card

Military Health History

POCKET CARD FOR HEALTH PROFESSIONS TRAINEES & CLINICIANS

General Questions

Would it be ok if I talked with you about your military experience?

When and where did you/do you serve and in what branch?
What type of work did you do or currently do while in the service?
Did you have any illnesses or injuries while in the service?

If Veterans answer "Yes" to any of the following questions, ask
"Can you tell me more about that?"

- Did you ever become ill while you were in the service?
- Were you or a buddy wounded, injured, or hospitalized?
- Did you have a head injury with loss of consciousness, loss of memory, "seeing stars" or being temporarily disoriented?
- Did you see combat, enemy fire, or casualties?
- Were you a prisoner of war?

Compensation & Benefits

Do you have a service-connected condition?
Would you like assistance in filing for compensation for injuries or illnesses related to your service?

VA Information: 1-800-827-1000 or 844-MyVA311 (698-2311)

Living Situation

Would it be ok to talk about your living situation?

Where do you live and who do you live with? Is your housing safe?
Are you in any danger of losing your housing?
Do you need assistance in caring for yourself and/or dependents?

Undesired Sexual Experiences in the Military

May I ask you about stressful experiences that men and women can have during military service?

1. Did you have any unwanted sexual experiences in the military? For example, threatening or repeated sexual attention, comments or touching?
2. Did you have any sexual contact against your will or when unable to say no, such as being forced, or when asleep or intoxicated?
If Yes: I am sorry; thank you for sharing that. VA refers to this as "military sexual trauma" or "MST" and offers free MST-related care.
If No: Okay, thank you. I ask all Veterans because VA offers free care related to these experiences.

Ask all military service members and all Veterans

Exposure Concerns

Would it be okay if I asked about some things you may have been exposed to during your service?

What... were you exposed to?

- **Chemical** (pollution, solvents, weapons, etc.)
- **Biological** (infectious diseases, weapons)
- **Psychological trauma or abuse**
- **Physical**

Blast or explosion	Radiation	Vehicular crash
Munitions or bullet wound	Shell fragment	Excessive noise
	Heat	Other injury

What... precautions were taken? (Avoidance, PPE, Treatment)

How... long was the exposure?

How... concerned are you about the exposure?

Where... were you exposed?

When... were you exposed?

Who... else may have been affected? Unit name, etc.

Behavior

Would it be okay if we talked about emotional responses during your service?

PTSD: Have you been concerned that you might suffer from Posttraumatic Stress Disorder? Symptoms can include re-experiencing symptoms such as nightmares or unwanted thoughts, hyperarousal/being "on guard," avoiding situations that remind you of the trauma, and/or numbing of emotions.

Depression: Have you been experiencing sadness, feelings of hopelessness/helplessness, lack of energy, difficulty with concentrating, and/or poor sleep?

Risk Assessment: Have you had thoughts of harming yourself or others?

Blood Borne Viruses (Hepatitis & HIV)

- Do you have tattoos? Have you ever injected or snorted drugs, such as heroin, cocaine, or methamphetamine?
- Have you ever been tested for Hepatitis C or HIV? If not, would you like to be tested for these?

Common Service-Related Exposure Concerns

Health Risks Associated With Specific Eras

Noise Induced Hearing Loss- Ringing in the Ears	Heat Stroke/Exhaustion
Burn Pit Smoke	Hexavalent Chromium
Cold Injuries	Mustard Gas
Contaminated Water (benzene, trichloroethylene, vinyl chloride)	Nerve Agents
Endemic Diseases	Pesticides
Malaria Prevention: Mefloquine - Lariam	Radiation (ionizing & Non-ionizing)
	Sand, Dust, Smoke, and Particulates
	Herbicides and other dioxins like Agent Orange

Occupational Hazards: Asbestos, Industrial Solvents, Lead, Radiation, Fuels, PCBs, Noise/Vibration, Chemical Agent Resistant Coating (CARC)

Gulf War/Southwest Asia (Afghanistan, Kuwait, Iraq)

Animal Bites/Rabies	Mental Health Issues
Blunt Trauma	Multi-Drug Resistant Acinetobacter
Burn Injuries (Blast Injuries)	Oil Well Fires
Chemical or Biological Agents	Reproductive Health Issues
Chemical Munitions Demolition	Spinal Cord Injury
Combined Penetrating Injuries	Traumatic Amputation
Depleted Uranium (DU)	Traumatic Brain Injury
Dermatological Issues	Vision Loss
Embedded Fragments (shrapnel)	

Immunizations: Anthrax, Botulinum Toxoid, Smallpox, Yellow Fever, Typhoid, Cholera, Hepatitis B, Meningitis, Whooping Cough, Polio, Tetanus

Infectious Diseases: Malaria, Brucellosis, Campylobacter jejuni, Coxiella burnetii, Mycobacterium tuberculosis, nontyphoid Salmonella, Shigella, visceral Leishmaniasis, West Nile Virus

Vietnam, Korean DMZ & Thailand

Agent Orange Exposure	Cold Injuries	Hepatitis C Risks
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Cold War

Chemical Warfare Agent Experiments	Nuclear Weapons Testing or Cleanup
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WWII & Korean War

Chemical Warfare Agent Experiments	Nuclear Weapons Testing or Cleanup
Cold Injuries	Biological Warfare Agents

<https://www.va.gov/OAA/pocketcard/>

<https://www.warrelatedillness.va.gov/education/factsheets/evaluating-veterans-with-environmental-exposure-concerns.pdf>





Environmental Health Registries

Six registries, available to certain groups of veterans based on location and period of service

MILITARY EXPOSURES CLASSIFICATIONS

PERIOD OF MILITARY SERVICE	AGENT ORANGE	AIRBORNE HAZARDS AND OPEN BURN PIT	DEPLETED URANIUM FOLLOW-UP	GULF WAR	IONIZING RADIATION	TOXIC EMBEDDED FRAGMENTS
1940s–1950s					●	
1960s	●				●	
1970s	●					
1990s		●	●	●		
2000s–Present		●	●	●		●



An Environmental Health Registry Assessment

IS

- voluntary
- free to eligible veterans
- available to eligible veterans regardless of enrollment in VA healthcare
- based on recollection of service
- helpful to VA to better understand and respond to veteran health concerns

Is NOT

- a disability compensation exam
- a claim for VA benefits
- required for other VA benefits
- confirmation of exposure to environmental hazards during military service
- based on military records
- available for family members of veterans

For more info: <https://www.publichealth.va.gov/exposures/benefits/registry-evaluation.asp>



Additional Resources

WRIISC Health Care Provider Trainings (e-learning modules on TRAIN Learning Network)

- Module 1: Assessing Deployment Related Environmental Exposures (TRAIN ID: 1070234)
- Module 2: Airborne Hazards (TRAIN ID: 1070422)
- Module 3: Gulf War Illness (TRAIN ID: 1074205)
- Module 4: Chronic Multisymptom Illness (TRAIN ID: 1084440)
- Module 5: Depleted Uranium and Toxic Embedded Fragments (TRAIN ID: 1087697)
- <https://www.warrelatedillness.va.gov/WARRELATEDILLNESS/education/provider-training/index.asp>

Department of Veterans Affairs (VA)

- Provider Resources on Military Exposures publichealth.va.gov/exposures/providers/index.asp
- Exposure Assessment for Clinical Providers publichealth.va.gov/exposures/providers/exposure-assessment.asp
- Exposure Ed App mobile.va.gov/app/exposure-ed



References

- 2019 Functional Organization Manual - Description of Organization Structure, Missions, Functions, Task, and Authorities.* (2018). Office of Enterprise Integration, Office of Policy and Interagency Collaboration. <https://www.va.gov/FOM-5-Final-July-2019.pdf>
- Brown, M. (2009). Military chemical warfare agent human subjects testing: Part 1--history of six-decades of military experiments with chemical warfare agents. *Military Medicine*, 174(10), 1041–1048. <https://doi.org/10.7205/milmed-d-04-8308>
- GAO. (1993). *VETERANS DISABILITY: Information From Military May Help VA Assess Claims Related to Secret Tests* (NSIAD-93-89). U.S. General Accounting Office. <https://www.gao.gov/assets/220/217493.pdf>
- GAO. (2004). *CHEMICAL AND BIOLOGICAL DEFENSE: DOD Needs to Continue to Collect and Provide Information on Tests and Potentially Exposed Personnel* (GAO-04-410). U.S. General Accounting Office. <https://www.gao.gov/assets/250/242279.pdf>
- GAO. (2017). *GULF WAR ILLNESS: Improvements Needed for VA to Better Understand, Process, and Communicate Decisions on Claims* (GAO-17-511). U.S. General Accounting Office. <https://www.gao.gov/assets/690/685582.pdf>



References

- Howren, M. B., Kazmerzak, D., Kemp, R. W., Boesen, T. J., Capra, G., & Abrams, T. E. (2019). Identification of Military Veterans Upon Implementation of a Standardized Screening Process in a Federally Qualified Health Center. *Journal of Community Health*. <https://doi.org/10.1007/s10900-019-00761-3>
- Institute of Medicine. (1993). *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite*. The National Academies Press. <https://doi.org/10.17226/2058>
- Institute of Medicine. (2003). *Gulf War and Health: Volume 2: Insecticides and Solvents*. The National Academies Press. <https://doi.org/10.17226/10628>
- Panangala, S. V., & Sussman, J. S. (2020). *Health Care for Veterans: Answers to Frequently Asked Questions* (No. R42747). Congressional Research Service.
- Richards, E. E. (2011). Responses to occupational and environmental exposures in the U.S. military—World War II to the present. *Military Medicine*, 176(7 Suppl), 22–28. <https://doi.org/10.7205/milmed-d-11-00083>
- U.S. Department of Veterans Affairs. (n.d.). *Military Exposures—Public Health* [General Information]. Retrieved April 11, 2020, from <https://www.publichealth.va.gov/PUBLICHEALTH/exposures/index.asp>



References

U.S. Department of Veterans Affairs. (2019). *Veterans Benefits Administration Annual Benefits Report Fiscal Year 2018*.

<https://www.benefits.va.gov/REPORTS/abr/docs/2018-abr.pdf>

Wang, Z. J., Cidade, M., Larsen, M., Pearman, G., Schimpf, M., & Dhanireddy, P. (2019). *2018 Survey of Veteran Enrollees' Health and Use of Health Care*. Advanced Survey Design.

https://www.va.gov/HEALTHPOLICYPLANNING/SOE2018/2018EnrolleeDataFindingsReport_9January2019Final508Compliant.pdf



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