

# Evaluating Veterans With Environmental Exposure Concerns: The Basics

## A RESOURCE FOR HEALTH CARE PROVIDERS

Many Veterans are concerned about military exposures and how these exposures may impact their health. This fact sheet gives providers tips on the basic steps for assessing the relationship between exposures and health outcomes. It offers tips on how to effectively communicate military exposure information to Veterans to help address their concerns.



### IMPORTANCE OF RISK COMMUNICATION

When talking to Veterans about military exposures, effective risk communication is an important first step because it helps build Veteran trust and understanding. Risk communication is “an interactive exchange of information and opinions” regarding the exposure or risk. Key risk communication points to consider are:

- Recognize Veteran concerns about military exposures may be high, and their trust that VA will address their concerns low. Veterans may have “researched” their exposure(s) from a variety of sources including word of mouth from other Veterans, media reports, and other sources that on face value may or may not be scientifically sound.
- There may be many unknowns surrounding the exposure(s) where clear cut answers do not exist. These factors may influence Veterans’ perceptions about how military exposures impact their health. For this reason, it is important to acknowledge Veterans’ exposure concerns and perceptions before simply offering “facts” or refuting the concerns. Once a clear understanding of perceptions is obtained, the discussion can then focus on the scientific information that may support or refute the exposure health concern.

- Discuss limitations surrounding exposure science. In many cases, there is limited data that exists on what a Veteran may or may not have been exposed and what levels of exposure occurred. Additionally, much of the information regarding military exposures is from studies on non-military populations and may not translate to military exposures. Having an open discussion about these limitations is critical. Discuss how ongoing research is trying to better understand how military exposures affect health.

### ABCs Of Exposure Assessment

To help establish a two-way dialogue and set expectations, begin by discussing how the exposure assessment will be conducted and engage the Veteran in the plan of care.

#### Points to keep in mind include:

- The exposure must have happened before the symptoms of the disease.
- The frequency and how long a person was exposed are important to determine. Individuals with acute high levels of exposure or with lower levels of exposures over longer periods of time may have comparably elevated risks for adverse health effects. This is known as the dose-response concept. This concept describes how adverse health effects are related to the overall amount of exposure a person experiences. Typically, as the total dose increases, the measured response (health effects) also increases.
- Veterans may ask to be “tested” for their exposure. In many cases, there is no way to “test” for an exposure that occurred in the past. As a result, exposure assessments often rely on Veterans’ subjective exposure histories coupled with what we know about the exposure from the occupational and environmental medicine literature.
- Veterans may have multiple exposure concerns. Try to evaluate these exposure(s) in a systemic manner. In some cases, longer appointments or follow-up appointments may be needed to capture the full exposure history.
- In some instances, it is difficult to link a Veteran’s exposure concern(s) with a specific health condition. In these instances, the focus should be on documenting the exposure concern and managing and treating the symptoms and trying to improve a Veteran’s overall quality of life.
- Recognize and discuss with Veterans health conditions that are associated with common military exposures and deployments (Table 1).

## Principles of Effective Risk Communication for Veteran Exposure Assessments

- ❑ LISTEN: Risk communication is two-way-understanding existing knowledge and prior beliefs is key. Address risk perceptions while communicating.
- ❑ RECOGNIZE IMPORTANCE OF EMPATHY AND TRUST: Convey caring before delivering information/science.
- ❑ EXPLAIN CONCEPTS of exposure science like dose/ response, timing of exposure and effect; explain how exposure(s) are assessed; and assist with knowledge gap(s) (e.g., addressing the belief that any level of exposure may cause harm).
- ❑ DESCRIBE UNCERTAINTIES but temper it by noting what is being done to address uncertainty.
- ❑ NOT HAVING THE ANSWER IS OKAY. You do not have to have the answer but strive to follow up on any items discussed. Point out where else the Veteran can get information/ who else can help and discuss the concept of “watchful waiting.”
- ❑ AVOID DEFINITIVE, NEGATIVE RESPONSES.
  - Instead of “There is no evidence to support a link between your exposure and your health condition” say, “At this time, research has not found a relationship; however, it is important to know that research is continuing in this area.”
  - Instead of “No one can tell you why you have this disease” say, “we have conducted a thorough work up and did not find any evidence of health conditions commonly linked to this exposure. In some cases, there are other factors that may contribute to your health symptoms which are difficult to see in a work-up. Fortunately, we know some things that can help.”
  - Instead of “You wouldn’t feel so badly if you would just lose weight and stop smoking” say, “We want to reduce the impact of the exposure on your health. Some effective ways to do this include eating a healthy diet and beginning a smoking cessation program.”
- ❑ REMEMBER RISK PERCEPTION IS NOT MIS – PERCEPTION. Addressing perception is key to communicating about military occupational and environmental exposures.



## IMPORTANT QUESTIONS TO ASK ABOUT THE EXPOSURE(S)

- WHAT were you exposed to? What precautions or protective measures were taken? Did you have symptoms at the time and if so, was any medical care sought?
- HOW were you exposed? (This helps determine route of exposure, i.e., dermal, ingestion, inhalation, or injection)
- HOW LONG was the exposure
- WHEN were you exposed?
- WHERE were you when you were exposed? (For example, inside vs. outside since inside exposure(s) may cause more harmful health effects due to ventilation being relatively poor)
- WHO else may have been affected? (For example, was there an outbreak of symptoms in other people nearby?)
- ASK about family history, medical history, social history habits, and other civilian/hobby/residential exposures that may be relevant as well as how concerned the Veteran is about the exposures discussed.
- DOCUMENT exposure histories in a chronological manner to identify all relevant military and nonmilitary exposures.



## EXPOSURE RESOURCES

When evaluating military exposure concerns, these sources may be helpful:

- Individual Longitudinal Exposure Record (ILER): DoD database that contains information about deployment dates, military jobs, incident reports, and Post-Deployment Health Assessments and Reassessments (PDHA and PDHRA). Available at <https://iler.csd.disa.mil>
- Department of Defense (DoD) Post Deployment Health Assessment (PDHA) or Reassessment (PDHRA): Surveys administered by DoD after service members' return from deployment(s) that ask about exposures and health symptoms; found in Joint Legacy Viewer (JLV) and ILER. More information available at <https://www.esd.whs.mil/Portals/54/Documents/DD/forms/dd/dd2796.pdf>
- Defense Health Agent Public Health (Periodic Occupational and Environmental Monitoring Summaries (POEMS)) data: Provide estimated exposures, assessment of whether estimated exposures are acceptable or unacceptable, and outline population health risks for deployment location sites. Available at <https://ph.health.mil/topics/envirohealth/hrasm/Pages/POEMS.aspx>
- DoD Records available through Vista Imaging
- Medical records

### Table 1: Health Conditions Associated With Common Military Exposures And Deployment

- AGENT ORANGE HERBICIDES – including certain cancers, heart disease, high blood pressure, Type 2 Diabetes, Parkinson’s disease
- AIRBORNE HAZARDS – respiratory disease, certain cancers
- NOISE HAZARDS – hearing loss, tinnitus
- MUSCULOSKELETAL INJURIES – arthritis
- MULTIPLE EXPOSURES – Gulf War Illness
- TRAUMATIC BRAIN INJURY – memory difficulties
- PENETRATING SHRAPNEL INJURY – heavy metal concerns
- COMBAT STRESSORS – PTSD, depression, anxiety, substance abuse

### NEXT STEPS

- Recognize that there may be significant variability on how individuals respond to the same exposure. After collecting an exposure history, review with the Veteran their exposures and discuss information known to date about potential health effects. Outline recommendations for specific symptoms or health conditions that a Veteran may report.
- Objective exposure measures are generally limited although future technologies may improve this. In some cases, diagnostic specialty testing may be indicated (for example spot urine Depleted Uranium (DU) test if DU a concern; heavy metal testing if heavy metals a concern; Pulmonary function tests/CXR if respiratory exposure disease suspected).
- Explain that we cannot change past exposures, but we can document the exposures and explore possible connections between past exposures and current symptoms, health conditions, or clinical outcomes. Provide educational fact sheets and resources to outline exposure information discussed.
- Assist Veterans to advocate for their needs. If needed, provide access to VA health resources, and engage social work for case management.
- Provide education on VA presumptive conditions that may be linked to deployment(s) and certain military exposures (available at <https://benefits.va.gov/BENEFITS/factsheets/serviceconnected/presumption.pdf>). Provide VA Benefits contact information (<https://benefits.va.gov/benefits/> and 1-800-827-1000) for claims questions.
- All Veterans are encouraged to participate in the VA’s Toxic Exposure Screen, which connects Veterans with additional resources based on their exposure concern. Depending on the exposure concern, (e.g., Agent Orange, Airborne Hazards or Gulf War exposures), Veterans may be eligible for the VA Registry program.

- Sometimes, Veterans may have pre-clinical symptoms that do not become readily diagnosable until later. For this reason, encourage Veterans to follow-up with their health provider for regular check-ups and monitoring of symptoms. Review the importance of avoiding future harmful exposures and engaging in regular health screenings and health promotional behaviors.



### HELPFUL PROGRAMS

- VA Registry Programs: For Veterans with Agent Orange, Gulf War, Airborne, Ionizing Radiation, or Depleted Uranium exposure concerns – find your local VA Registry team at <https://www.publichealth.va.gov/exposures/coordinators.asp>
- War Related Illness and Injury Study Center (WRIISC): for deployed, combat Veterans with difficult to diagnose conditions that persist despite baseline evaluation and trial of first-line treatments. Learn more about the WRIISC at <https://www.warrelatedillness.va.gov/>



### ADDITIONAL EXPOSURE RESOURCES

- VA A to Z Military Exposure Topics - <https://www.publichealth.va.gov/exposures/topics/index.asp>
- VA Exposure Ed App - <https://mobile.va.gov/app/exposure-ed>
- CDC Agency for Toxic Substances and Disease Registry - <https://www.atsdr.cdc.gov/>
- Individual Longitudinal Exposure Record (ILER) - <https://iler.csd.disa.mil>
- U.S. Public Health Command POEMS - <https://ph.health.mil/topics/envirohealth/hrasm/Pages/POEMS.aspx>
- Risk Communication in Deployment-Related Exposure Concerns - <https://www.warrelatedillness.va.gov/research/articles/2012-SantosS-risk-communication-in-deployment-related-exposure-concerns.pdf>

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