

METAL EXPOSURES & DEPLETED URANIUM (MEDU) SURVEILLANCE CENTER

EMBEDDED FRAGMENTS INFORMATION FOR VETERANS



METAL EXPOSURES & DEPLETED URANIUM (MEDU) SURVEILLANCE CENTER

VA has created the MEDU Surveillance Center to give support to VA care providers in managing the health of post-9/11 Veterans who have fragments in their bodies after an injury. Most fragments come from being injured by an improvised explosive device (IED) or other blast.

WHAT IS AN EMBEDDED FRAGMENT?

An embedded fragment is a piece of metal or other material, that stays in the body after an injury. Another common term used for this material is shrapnel. Embedded fragments are of concern because they may contain material that might be harmful.



WHY MIGHT A RETAINED FRAGMENT BE HARMFUL?

Fragments could cause harm to the body in two different ways. First, they could cause problems (such as inflammation) at the site of the fragment. Second, toxic materials from the fragments could leach and go to other parts of the body through the bloodstream.

WHAT DOES THE MEDU SURVEILLANCE CENTER DO FOR VETERANS WHO HAVE EMBEDDED FRAGMENTS?

One of the missions of the MEDU Surveillance Center is to offer medical surveillance to Veterans injured by a bullet, blast or explosion who have retained embedded fragments from their injury. MEDU will follow Veterans with fragments so that potential health problems can be identified and treated. To do this, the MEDU Surveillance Center has created a registry of post-9/11 Veterans who have had a fragment removed or who still have a fragment in their body.

The MEDU Surveillance Center will:

- Provide special testing for metals that might be released from the fragments.
- Use test results to guide individual care of the Veteran.
- Use information from the registry to write guidelines for medical care for other VA health care providers across the country.

HOW CAN I BE TESTED FOR TOXIC METALS THAT MIGHT BE RELEASED FROM FRAGMENTS?

If you have an embedded fragment, talk with your local Environmental Health Coordinator [Environmental Health Coordinators - Public Health \(va.gov\)](#) or VA health care provider. They will need to obtain a special urine collection kit from the MEDU Surveillance Center.



They will then work with you to complete a form that asks about your injury and fragments and obtain a urine sample to submit to the MEDU Surveillance Center for testing. A urine sample is needed to measure the level of metals that may be present or released from fragments.

WHAT WILL BE MEASURED IN THE URINE SAMPLE I PROVIDE?

Your urine will be tested to detect possible exposure to certain metals that have previously been found in fragments. The creatinine level will also be measured. Creatinine is a waste product always found in urine. It helps determine how diluted or concentrated the urine is during the time of the test. It also allows urine samples to be more accurately compared to each other. Please note that the metal tests are very specialized, and it may take up to 30 days, sometimes longer, to receive results.

IF METALS ARE FOUND IN MY URINE WHAT DOES IT MEAN?

It is common for people to have small amounts of - metals in their urine. Most people are exposed to these materials through the food they eat or water they drink. However, the actual levels of the metals found will be helpful in determining what the fragments in your body may contain. The MEDU Surveillance Center will send you and your VA health care provider a letter explaining the results of the testing. These letters will also contain recommendations for follow-up.

WHAT SHOULD I DO IF I HAVE A FRAGMENT REMOVED?

If you are scheduled to have a fragment removed during an outpatient or surgical visit, talk with your VA health care provider ahead of time. They can request a fragment collection kit from the MEDU Surveillance

Center and submit the fragment for testing. Testing the fragment to find out what it is made of can help identify potential health risks.

IMPORTANT TERMS AND DEFINITIONS

Creatinine — a normal waste product found in the urine.

Embedded — enclosed in the body.

Fragment — a piece of material that has broken off or detached.

Improvised explosive device — a device made from any material that can explode and cause harm.

Medical surveillance — following the health of individuals over time to look for health effects linked to an exposure.

Shrapnel — a piece of material that results from an explosion.

Registry — a database to collect health information on individuals sharing the same condition (like having an embedded fragment). When this information is taken together, it can answer questions about the health of that group.

Toxic — can cause harm.

Toxic material — material that can cause harm.

Treatment guidelines — plan of action for providing care.

