

Veterans and Cancer (Part I) [1]

Some veterans of the U.S. Armed Forces may have been exposed during service to substances, such as ionizing radiation and [Agent Orange](#) [2], that are known to cause cancer. Many veterans who were exposed to these agents several decades ago are now at an age where cancer is more likely to develop. In this two-part series, learn about the link between some agents and cancer, programs to help veterans, and questions to ask your doctor. This article discusses ionizing radiation and nasopharyngeal radium treatment. The [second article](#) [3] discusses Agent Orange (in use during the Vietnam War), risks to veterans of recent conflicts, and questions to ask your doctor.

Ionizing radiation risk

Ionizing radiation (radiation that can give off enough energy to affect living tissue in the human body) has helped transform how cancer is diagnosed and treated. For example, ionizing radiation is used in x-ray technologies, such as [computerized tomography \(CT\) scans](#) [4] (a three-dimensional picture of the inside of the body with an x-ray machine) and a [mammography](#) [5] (an x-ray of the breast), that allow doctors to closely examine the inside of the body. In addition, half of all people with cancer receive ionizing radiation therapy to eliminate cancer cells and shrink tumors. Ionizing radiation is also used to help keep cancer from coming back after surgery and to lessen pain caused by cancer.

Although ionizing radiation may be able to help people with cancer, high, uncontrolled exposure to this radiation can cause cancer. Some veterans were exposed to harmful radiation while actively serving in the military and have developed short-term and long-term health problems, including some types of cancer. The [U.S. Department of Veterans Affairs](#) [6] (VA) has programs that provide medical care and other benefits to these veterans who meet specific criteria.

Ionizing radiation and cancer

The VA has identified specific activities that may have exposed veterans to ionizing radiation, including military service in Japan during World War II and atmospheric nuclear weapons testing from 1945 to 1962. A veteran who has participated in a radiation-risk activity as defined by the VA and who develops one or more of the following cancers is eligible for benefits, such as medical treatment and disability compensation. However, a veteran must be able to document exposure to specific radiation activities during his or her military service to receive benefits from

the VA.

- [Bile duct cancer](#) [7]
- [Bone cancer](#) [8]
- [Brain cancer](#) [9]
- [Breast cancer](#) [10]
- Bronchiolo-alveolar cancer (a rare form of lung cancer)
- [Colon cancer](#) [11]
- [Esophageal cancer](#) [12]
- [Gallbladder cancer](#) [13]
- [Leukemia](#) [14] (other than chronic lymphocytic leukemia)
- [Liver cancer](#) [15], primary (except if cirrhosis or hepatitis B is indicated)
- [Lung cancer](#) [16]
- [Lymphomas](#) [17] (except Hodgkin disease)
- [Multiple myeloma](#) [18]
- [Ovarian cancer](#) [19]
- [Pancreatic cancer](#) [20]
- [Pharynx \(throat\) cancer](#) [21]
- [Salivary gland cancer](#) [22]
- [Small intestine cancer](#) [23]
- [Stomach cancer](#) [24]
- [Thyroid cancer](#) [25]
- Urinary tract cancer (cancers of the [kidney](#) [26] and renal system, pelvis, ureter, [urinary bladder](#) [27], and urethra)

Contact the VA [28] to learn more about the activities that put armed forces members at risk for radiation exposure.

Nasopharyngeal radium treatment

Veterans exposed to nasopharyngeal radium treatment may be at increased risk for cancer. In 1926, nasopharyngeal (NP) radium irradiation was introduced as a treatment for a wide range of head and neck problems in children, such as hearing loss, chronic ear infections, and swollen tonsils. Rods tipped with radium that emitted ionizing radiation were inserted through the nostrils into the nasopharynx (air passageway at the upper part of the throat behind the nose). The rods were left for several minutes and treatment was often repeated several times.

Nasopharyngeal radium treatment risk

The effectiveness of the treatment led the military to begin using it to treat middle ear problems in pilots, submariners, and divers that were caused by atmosphere changes. By 1960, concerns arose about the long-term effects of the therapy, including an increased risk of head and neck cancer. By the early 1970s, NP radium treatment was no longer used.

Veterans who have head or neck cancer and were exposed to NP radium treatments may receive free medical care and other services by the VA.

Veteran Affairs benefits

To help meet the needs of veterans exposed to ionizing radiation, the VA developed the [Ionizing Radiation Registry](#) [29], which includes free health examinations at VA medical centers. To make an appointment for an Ionizing Radiation Registry examination, call your local VA medical center. [Find your local VA medical center](#) [30] or call 877-222-8387 for assistance.

More Information

[Frequently Asked Questions About Radiation Therapy](#) [31]

[Understanding Radiation Therapy](#) [32]

Additional Resources

[National Cancer Institute: Nasopharyngeal Radium Irradiation \(NRI\) and Cancer Fact Sheet](#) [33]

[U.S. Department of Veterans Affairs: Exposure to Radiation During Military Service](#) [34]

Links:

[1] <http://www.cancer.net/navigating-cancer-care/cancernet-feature-articles/veterans-and-cancer-part-i>

[2] <http://www.publichealth.va.gov/exposures/agentorange/diseases.asp>

[3] <http://www.cancer.net/node/24736>

[4] <http://www.cancer.net/node/24486>

[5] <http://www.cancer.net/node/24584>

[6] <http://www.va.gov/>

[7] <http://www.cancer.net/node/18505>

[8] <http://www.cancer.net/node/18534>

[9] <http://www.cancer.net/node/18562>

[10] <http://www.cancer.net/node/18618>

[11] <http://www.cancer.net/node/18701>

[12] <http://www.cancer.net/node/18783>

[13] <http://www.cancer.net/node/18855>

[14] <http://www.cancer.net/cancer-types>

[15] <http://www.cancer.net/node/19134>

[16] <http://www.cancer.net/node/19148>

[17] <http://www.cancer.net/node/19207>

[18] <http://www.cancer.net/node/19367>

[19] <http://www.cancer.net/node/19481>

[20] <http://www.cancer.net/node/19495>

[21] <http://www.cancer.net/node/18996>

[22] <http://www.cancer.net/node/19350>

[23] <http://www.cancer.net/node/19632>

[24] <http://www.cancer.net/node/19645>

[25] <http://www.cancer.net/node/19293>

[26] <http://www.cancer.net/node/18969>

[27] <http://www.cancer.net/node/18520>

[28] <http://www.publichealth.va.gov/exposures/radiation/>

[29] <http://www.publichealth.va.gov/exposures/radiation/registry.asp>

[30] <http://www2.va.gov/directory/guide/home.asp?isFlash=1>

[31] <http://www.cancer.net/node/24539>

[32] <http://www.cancer.net/node/24728>

[33] <http://www.cancer.gov/cancertopics/factsheet/nasopharyngealradium>

[34] <http://www.publichealth.va.gov/exposures/radiation/military-exposure.asp>