

« back to **CNN**health.com

[Patient Care](#) **Health Information**  [For Medical Professionals](#) [Research](#) [Education](#)

[Request an Appointment](#) [Find a Doctor](#) [Find a Job](#) [Log in to Patient Account](#)

Enter search term here **SEARCH** [Diseases and Conditions](#) | [Symptoms](#) | [Drugs and Supplements](#) | [Tests and Procedures](#) | [Healthy Lifestyle](#) | [First Aid](#)

[Home](#) [Diseases and Conditions](#) [Radiation sickness](#) [Basics](#) [Tests and diagnosis](#)

Text Size:

Radiation sickness

Basics Resources

- [Definition](#)
- [Symptoms](#)
- [Causes](#)
- [Tests and diagnosis](#)**
- [Complications](#)
- [Treatments and drugs](#)

Free E-Newsletters

Subscribe to receive the latest updates on health topics.

[About our newsletters](#)

- Housecall
- Alzheimer's caregiving
- Living with cancer

Enter e-mail

SUBSCRIBE

RSS Feeds

Get **free personalized** health guidance for you and your family.

GET STARTED

Tests and diagnosis

By Mayo Clinic staff

When a person has experienced known or probable exposure to a high dose of radiation from an accident or attack, medical personnel take a number of steps to determine the absorbed radiation dose. This information is essential for determining how severe the illness is likely to be, which treatments to use and whether a person is likely to survive.

Information important for determining an absorbed dose includes:

- **Known exposure.** Details about distance from the source of radiation and duration of exposure can help provide a rough estimate of the severity of radiation sickness.
- **Vomiting and other symptoms.** The time between radiation exposure and the onset of vomiting is a fairly accurate screening tool to estimate absorbed radiation dose. The shorter the time before the onset of this sign, the higher the dose is. The severity and timing of other signs and symptoms may also help medical personnel determine the absorbed dose.
- **Blood tests.** Frequent blood tests over several days enable medical personnel to look for drops in disease-fighting white blood cells and abnormal changes in the DNA of blood cells. These factors indicate the degree of bone marrow damage, which is determined by the level of an absorbed dose.
- **Dosimeter.** A device called a dosimeter can measure the absorbed dose of radiation but only if it was exposed to the same radiation event as the affected person.
- **Survey meter.** A device such as a Geiger counter can be used to survey people to determine the body location of radioactive particles.
- **Type of radiation.** A part of the larger emergency response to a radioactive accident or attack would include identifying the type of radiation people have been exposed to. This information would guide some decisions for treating people with radiation sickness.

Causes

Complications

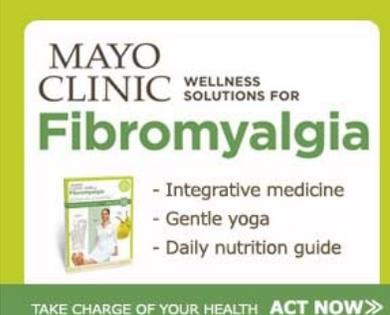
References

May 8, 2010

DS00432

© 1998-2011 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved. A single copy of these materials may be reprinted for noncommercial personal use only. "Mayo," "Mayo Clinic," "MayoClinic.com," "EmbodyHealth," "Enhance your life," and the triple-shield Mayo Clinic logo are trademarks of Mayo Foundation for Medical Education and Research.

Advertisement



Check out these best-sellers and special offers on books and newsletters from Mayo Clinic.

[Try Mayo Clinic Health Letter free!](#)

[Mayo Clinic Wellness Solutions for Fibromyalgia — DVD](#)

[Cell Phone Radiation](#)

[The Essential Diabetes Book](#)

[Shields 99.95% of Radiation Get RadiGuard Protection Today](#)

[Mayo Clinic Fitness for Everybody](#)

[RadiGuard Clinic Diet — stay connected with us on](#)

[Sustainable EHS Solutions](#)

[Industrial Hygiene Support, Inc. Radiological and Biological Expert](#)

[www.industrialhygienist.com](#)

[Local Coupons](#)

1 ridiculously huge coupon a day. Get 50-90% off your city's best!

[www.Groupon.com](#)

[Ryan Diagnostics, Inc.](#)

Sole factory-trained distributor of the Lead Care II testing system.

[www.ryandiag.com](#)



Ads by Google

Advertising and sponsorship policy
Advertising and sponsorship opportunities

Find Mayo Clinic on

[Facebook](#) [Twitter](#) [YouTube](#)

[Privacy policy](#) (Updated Nov. 5, 2010) [Terms and conditions of use policy](#) (Updated July 8, 2010)

LEGAL CONDITIONS AND TERMS OF USE APPLICABLE TO ALL USERS OF THIS SITE. ANY USE OF THIS SITE CONSTITUTES YOUR AGREEMENT TO THESE TERMS AND CONDITIONS OF USE.

© 1998-2011 Mayo Foundation for Medical Education and Research. All rights reserved.



We comply with the [HONcode standard for trustworthy health information](#): [verify here](#).