

## Health Effects of Cs-137

Cesium-137 is completely absorbed by the lungs, gastrointestinal tract, and wounds. It is soluble in most forms and is treated by metabolism as a potassium analog. Excretion is in urine. Primary toxicity is whole-body irradiation. Deaths due to acute radiation syndrome have occurred.

Like all radionuclides, exposure to radiation from Cesium-137 results in increased risk of cancer. Everyone is exposed to very small amounts of Cesium-137 in soil and water as a result of atmospheric fallout. Exposure to waste materials, from contaminated sites, or from nuclear accidents can result in cancer risks much higher than typical environmental exposures. If exposures are very high, serious burns, and even death, can result.

Instances of such exposure are very rare. One example of a high-exposure situation would be the mishandling a strong industrial Cesium-137 source. The magnitude of the health risk depends on exposure conditions. These include such factors as strength of the source, length of exposure, distance from the source, and whether there was shielding between you and the source (such as metal plating).