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**RERF Glossary**



**RERF Update**

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## Radiation Health Effects

If you are interested in the research activities of a specific department, please see the individual [department](#) page and its current research highlights. For further information, go to [Frequently Asked Questions](#) about atomic-bomb survivor research, [Basics about Radiation](#), or the [RERF Glossary](#).

### ■ [Early effects on survivors](#)

From several months to several years after the atomic bombings

[Acute radiation syndrome](#) : epilation, reduction in the number of blood cells, purpura, nausea and vomiting

[Acute death due to radiation](#)

[Radiation cataract \(lens opacity\)](#)

### ■ [Late effects on survivors](#)

From several years after the atomic bombings to the present day

[Solid cancer risks among atomic-bomb survivors](#)

[Site-specific cancer risks among atomic-bomb survivors](#)

[Leukemia risks among atomic-bomb survivors](#)

[Benign tumors](#)

[Deaths due to non-cancer diseases](#)

[Chromosome aberrations](#)

[Somatic cell mutations](#)

[Effects on the immune system](#)

[Effects on physical growth and development](#)

[Effects on the aging process](#)

### ■ [Effects on the \*in utero\* exposed](#)

[Mental disability and growth impairment among survivors exposed \*in utero\*](#)

[Cancer incidence among survivors exposed \*in utero\*](#)

### ■ [Genetic effects](#)

Many hereditary endpoints have been studied.

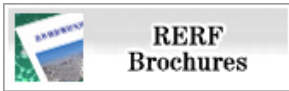
[Birth defects among the children of atomic-bomb survivors](#)

[Sex ratio among the children of atomic-bomb survivors](#)

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[DNA studies of the children of atomic-bomb survivors](#)



[Mortality and cancer incidence among the children of atomic-bomb survivors](#)

[Report on the Health Effects Study of the Children of A-bomb Survivors \(March 2007\)](#)[PDF: 426KB]

■ [Cancer mechanisms](#)

Why does radiation cause excess cancers among the atomic-bomb survivors?

[Why do some tissues appear to be more radiosensitive?](#)

[Genes that promote tumors. What turns them on?](#)

[Genes that suppress tumors. What turns them off?](#)

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