



More radiation not necessarily better

Irradiation therapy helps most people with leukemia before blood or marrow transplant

Very high doses of irradiation before blood or marrow transplant (BMT) are only as helpful as standard high doses, according to a new study.

Total body irradiation (TBI) kills leukemia cells and other blood cancer cells. TBI is used with chemotherapy (chemo) to prepare a person for BMT. BMT replaces cancer cells with healthy cells. Researchers at CIBMTR looked at medical records of about 2,700 people with these blood cancers:

- acute myeloid leukemia (AML),
- acute lymphoblastic leukemia (ALL),
- chronic myeloid leukemia (CML) and
- myelodysplastic syndrome (MDS).

All the people got BMT from a matched donor sometime during 2001-2013 and received high doses of irradiation to prepare for BMT. The researchers studied whether patients who received extra-high doses would have any benefit over patients who received standard high doses of irradiation.

Researchers learned that most people don't benefit from receiving extra-high doses of irradiation. People who got the most TBI had lower risk that the cancer would return but had a higher risk of organ failure due to toxicity of these extra-high doses.

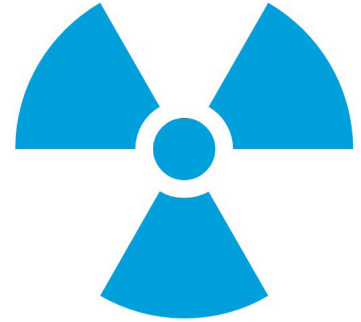
However, extra high-dose TBI could be considered in people who are:

- younger than 40,
- in relatively good health,
- and who have advanced cancer.

More research is needed on how to make radiation therapy safer.

Ask your doctor

What are the risks and potential benefits of radiation therapy for me?



Learn more about

- [This research](#)
- [Radiation therapy](#), from [BeTheMatch.org](#)
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About this research summary

This information is provided on behalf of the Consumer Advocacy Committee of the CIBMTR[®] (Center for International Blood and Marrow Transplant Research[®]).

Source

Sabloff M, Chhabra S, Wang T, et al. Comparison of High Doses of Total Body Irradiation in Myeloablative Conditioning before Hematopoietic Cell Transplantation. *Biology of Blood and Marrow Transplantation*. 2019. Epub 2019 Aug 29. doi: 10.1016/j.bbmt.2019.08.012.

