

The Linear No-Threshold (LNT) Model for Biologic Effects of Ionizing Radiation and Assumptions in Cancer Risk Extrapolation Radiation is a common natural phenomenon that can cause damage or affect living users' health by inducing cancer. Some of the fundamental principles of the LNT Model:

- 1- Linear Relationship: The risk of cancer is directly proportional to the radiation dose during exposure
- No Threshold: The smallest dose can cause cancer.
- 2 Additive Effects: Radiation risk accrues over a lifetime.
- 3 The LNT model is a good example of a conservative radiation regulation tool that has been favored by the regulatory agencies that are US National Academy of Sciences (NAS) and the International Commission on Radiological Protection (ICRP).

Extrapolation to Low Doses: It is a good idea to note that the LNT model happens to extrapolate high-dose data linearly to zero dose, but in reality it is quite seldom and it is not enough to infer a risk at low doses