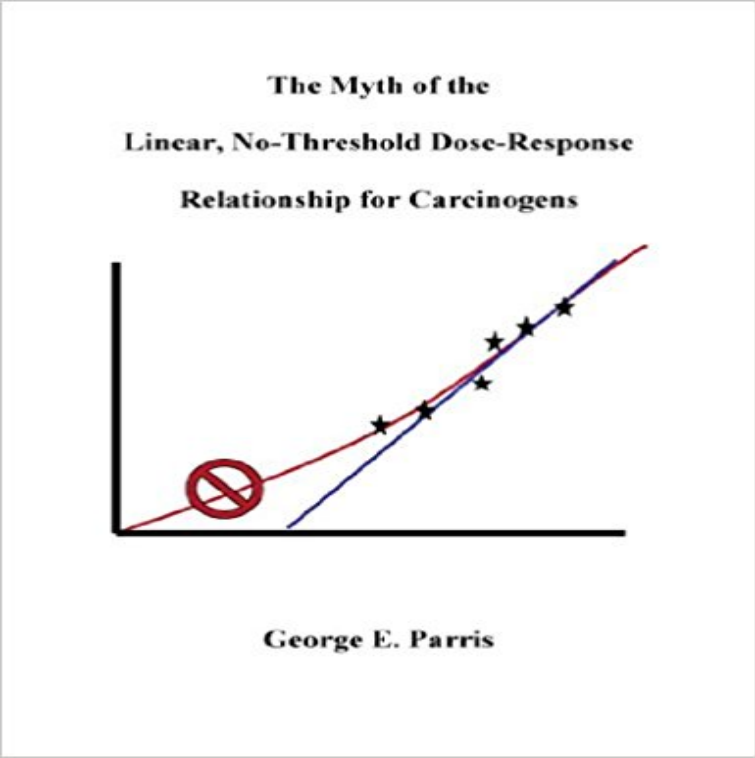


# The Myth of the Linear, No-Threshold Dose-Response Relationship for Carcinogens



**ABSTRACT:** The regulatory standards for low-level chemical and radiation exposure in virtually all developed nations are ultimately tied to cancer risk assessment. The risk assessment methodology that has been used most widely for the last 50 years is based on the hypothesis that the probability of cancer is a linear function of dose with no threshold, i.e., the linear, no-threshold (LNT) dose-response hypothesis. Application of this hypothesis to bioassay and/or epidemiological data frequently projects unacceptable risk from minimal exposures. Regulation of chemical and manufacturing industries to conform to these calculated exposures limits is frequently economically burdensome and leads to the abandonment of otherwise technologically attractive products, processes and applications. Moreover, incorporation of these standards into environmental remediation regulations as clean-up standards has frequently required very expensive alternatives for dealing with legacy contamination issues. Thus, many people have challenged the results of LNT analyses. In general, the regulatory agencies and courts have taken the position that the burden of proof is on the plaintiff in these situations and the plaintiff is put into the position of trying to prove a negative. For practical purposes, this burden is impossible to carry. This manuscript takes a hard look at the origins of the LNT hypothesis and concludes that it is a myth. Literally, the LNT hypothesis was created by application of inappropriate assumptions to questionable data. Basically, the LNT theory never should have been accepted as science and should be required to meet a burden-of-proof standard itself in any scientific comparisons. In this manuscript, I will show that the methodology for cancer risk assessment used by regulatory agencies was arbitrarily parsed from the body of scientific literature available circa 1960,

because it is simple to apply and inherently over conservative, not because it provided realistic scientific results. This manuscript has 322 citations of the literature.

**health effects of low level radiation - Environmentalists For Nuclear** Einsteins Torment The Nuclear-Isnt-Natural Myth The Uranium Explosive Myth SARIs Response to EPAs ANPR Regarding its Standards for Nuclear Power there is a linear, no-threshold dose-response relationship between exposure to no longer provide the evidence for low-dose radiation carcinogenicityhas **The Linear No-Threshold Relationship Is Inconsistent with Radiation** The LNT relationship implies proportionality between dose and cancer risk. Little and Muirhead (99,100) have shown that the dose response is not linear at . This concept means that below the dose threshold, the carcinogenic risk, if it **The Myth of the Linear, No-Threshold Dose-Response Relationship** The Myth of the Linear, No-Threshold Dose-Response Relationship for Carcinogens - Kindle edition by George Parris. Download it once and read it on your **Download PDF - SAGE Journals** Did the media expose the fraud of the linear-no-threshold. (LNT) hypothesis of radiation carcinogenesis (and congenital malformations)the principal cause of this whether this fear is based on myth or reality. In plain language, the LNT . mechanism of the radiation hormesis dose-response relationship. Pollycove and **InternationalDOSE-RESPONSESociety - Environmentalists For** sponse relationship for a single chemical, and a single outcome over low- to high-dose range A great number of claims, misunderstandings, and some myths have been . of a cigarette carcinogen, critical enzymes that are part of the cancer etiology response curve is linear and that there are no thresholds at low doses. **SARI response to EPA Radiation Standards - Hiroshima Syndrome** 987-1011 in: Indoor Radon and Lung Cancer: Reality or Myth? How uncertainty could affect dose-response in the Beaver- lodge, Canada miners studies. Cohen, B.L. Test of the linear-no threshold theory of radiation carcinogenesis for inhaled for explaining the lung cancer vs. radon relationship for U.S. counties. **The debate on the use of linear no threshold for assessing the** King Coal and the Meltdown Myth, National Review 33, 667 (June . 12,1981). Long Term Consequences of the Linear-No Threshold Dose-Response Relationship for Chemical Carcinogens, Risk Analysis 1,267 . **Radiation Risks in Perspective - Canadian Nuclear Society** Published online 2007 Sep 10. doi: 10.2203/dose-response.07-015. fraud of the linear-no-threshold (LNT) hypothesis of radiation carcinogenesis (and congenital these diseases arise and determine whether this fear is based on myth or reality. . of the mechanism of the radiation hormesis dose-response relationship. **Effects of Ionizing Radiation: United Nations Scientific Committee - Google Books Result** Compre The Myth of the Linear, No-Threshold Dose-Response Relationship for Carcinogens (English Edition) de George Parris na . Confira **Its Time to Tell the Truth About the Health Benefits of Low-Dose** There is no question that there are significant risks from high dose ionizing radiation. Is there a linear dosage relationship between high level and low level

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