



What do global **regulatory** and **research agencies** conclude about the health impact of

GLYPHOSATE?


Risk Assessment

What is the likelihood this will cause harm, based on dose and exposure?

 <p>United States Environmental Protection Agency</p>	USA	“Human health risk assessment concludes that glyphosate is not likely to be carcinogenic to humans... [and] no other meaningful risks to human health when the product is used according to the pesticide label”	2017
 <p>Office of Pesticide Programs</p>	USA	“Not strong support for... ‘suggestive evidence of carcinogenic potential...’ based on the weight-of-evidence... Even small, non-statistically significant changes... were contradicted by studies of equal or higher quality. The strongest support is for ‘ not likely to be carcinogenic to humans ’”	2017
 <p>National Toxicology Program U.S. Department of Health and Human Services</p>	USA	“ Little evidence of toxicity , and there was no evidence of glyphosate causing damage to DNA”	1992
 <p>Health Canada</p>	Canada	“Products containing glyphosate do not present unacceptable risks to human health or the environment when used according to the revised product label directions... Risks to [occupational] handlers are not of concern for all scenarios” “ No pesticide regulatory authority in the world currently considers glyphosate to be a cancer risk to humans at the levels at which humans are currently exposed”	2017 2019
 <p>EUROPEAN CHEMICALS AGENCY</p>	Europe	“Based on the epidemiological data as well as on data from long-term studies in rats and mice, taking a weight of evidence approach, no hazard classification for carcinogenicity is warranted”	2017
 <p>European Food Safety Authority</p>	Europe	“Glyphosate is unlikely to be genotoxic or to pose a carcinogenic threat to humans ... Neither the epidemiological data nor the evidence from animal studies demonstrated causality between exposure to glyphosate and the development of cancer in humans”	2015
 <p>agence nationale de sécurité sanitaire alimentation, environnement, travail</p>	France	“ Level of evidence of carcinogenicity in animals and humans is considered to be relatively limited and does not allow for a 1A or 1B classification (known or suspected carcinogen for humans)”	2016
 <p>Bundesinstitut für Risikobewertung</p>	Germany	“Available data do not show carcinogenic or mutagenic properties of glyphosate nor that glyphosate is toxic to fertility, reproduction or embryonal/fetal development in laboratory animals”	2015
 <p>Federal Department of Home Affairs FDHA Federal Food Safety and Veterinary Office FSVO</p>	Switzerland	“Residues of glyphosate in the foods investigated do not represent a risk of cancer ”	2018
 <p>Australian Government Australian Pesticides and Veterinary Medicines Authority</p>	Australia	“Glyphosate does not pose a carcinogenic risk to humans ... Products containing glyphosate are safe to use as per the label instructions”	2016
 <p>Environmental Protection Authority Te Mana Rauhi Taiao</p>	New Zealand	“ Unlikely to be carcinogenic to humans or genotoxic (damaging to genetic material or DNA) and should not be classified as a mutagen or carcinogen”	2016
 <p>Agência Nacional de Vigilância Sanitária</p>	Brazil	“ No evidence to indicate that the herbicide glyphosate is carcinogenic ”	2019
 <p>Food Safety Commission of Japan</p>	Japan	“ No neurotoxicity, carcinogenicity, reproductive toxicity, teratogenicity, and genotoxicity ”	2016
 <p>Rural Development Administration</p>	Korea	“Epidemiological studies on glyphosate... found no cancer link ”	2017
 <p>World Health Organization</p>	Global	“Glyphosate is unlikely to be genotoxic at anticipated dietary exposures . Glyphosate is unlikely to pose a carcinogenic risk to humans from exposure through the diet”	2016
 <p>Drinking-water quality guidelines</p>	Global	“Under usual conditions, the presence of glyphosate and AMPA [aminomethylphosphonic acid, glyphosate’s primary metabolite] in drinking-water does not represent a hazard to human health ”	2004
 <p>International Programme on Chemical Safety</p>	Global	“Available data on occupational exposure for workers applying Roundup indicate exposure levels far below the NOAELs [no observed adverse effect levels] from the relevant animal experiments”	1994


Longitudinal Study

How glyphosate impacted 54,251 pesticide applicators since 1993.

 <p>Agricultural Health Study</p>	USA	“ No association was apparent between glyphosate and any solid tumors or lymphoid malignancies overall, including non-Hodgkin’s lymphoma and its subtypes... some evidence of increased risk of AML [acute myeloid leukemia] among the highest exposed group that requires confirmation”	2018
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Hazard Assessment

What is the potential to cause harm, regardless of dose or exposure?

 <p>International Agency for Research on Cancer</p>	Global	“ Limited evidence in humans for the carcinogenicity of glyphosate... Evidence in humans is from studies of exposures, mostly agricultural [e.g. not from dietary exposure]... A positive association has been observed for non-Hodgkin lymphoma... There is ‘ strong ’ evidence that exposure to glyphosate or glyphosate-based formulations is genotoxic ” IARC placed glyphosate in its hazard category “Group 2A: probably carcinogenic to humans” along with red meat, hot beverages, and working as a barber. The evidence on carcinogenicity was less robust than for agents such as bacon, salted fish, oral contraceptives and wine.	2015
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