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?

EPA United States Environmental Protection Agency	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
EPA United States Environmental Protection Agency, Office of Pesticide Programs	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
NTP National Toxicology Program	USA	"**Little evidence of toxicity**, and there was no evidence of glyphosate causing damage to DNA" 1992
Health Canada	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" 2017 "**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" 2019
ECHA European Chemicals Agency	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
efsa European Food Safety Authority	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
anses agence nationale de sécurité sanitaire alimentation, environnement, travail	France	"**Level of evidence of carcinogenicity** in animals and humans is considered to be relatively limited" 2016 "36 [glyphosate-based] products ... will no longer be allowed for use from the end of 2020, due to a **lack or absence of scientific data** which would allow all genotoxical risk to be ruled out" 2019
BfR Bundesinstitut für Risikobewertung	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
Federal Department of Home Affairs FDHA, Federal Food Safety and Veterinary Office FSVO	Switzerland	"Residues of glyphosate in the foods investigated **do not represent a risk of cancer**" 2018
Australian Government, Australian Pesticides and Veterinary Medicines Authority	Australia	"Glyphosate **does not pose a carcinogenic risk** to humans.... Products containing glyphosate are safe to use as per the label instructions" 2016
Environmental Protection Authority, Te Mana Rauhī Taiao	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
ANVISA Agência Nacional de Vigilância Sanitária	Brazil	"**No evidence** to indicate that the herbicide **glyphosate is carcinogenic**" 2019
Food Safety Commission of Japan	Japan	"**No** neurotoxicity, **carcinogenicity**, reproductive toxicity, teratogenicity, and genotoxicity" 2016
Rural Development Administration	Korea	"Epidemiological studies on glyphosate... found **no cancer** link" 2017
World Health Organization, Food and Agriculture Organization of the United Nations	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
World Health Organization, Drinking-water quality guidelines	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
World Health Organization, International Programme on Chemical Safety	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.

Agricultural Health Study	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

Hazard Assessment

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

International Agency for Research on Cancer, World Health Organization	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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Click on the bolded conclusions to take you to the document issued by the regulatory or research agency.

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