

# Get Roundup Weedkiller Out of Schools

On August 10, 2018, Monsanto was ordered to pay \$289.2 million after a jury found that Roundup weedkiller caused Dewayne “Lee” Johnson’s cancer. Johnson was a school groundskeeper who sprayed Roundup on school properties. He is now terminally ill with non-Hodgkin lymphoma. The jury unanimously agreed that Roundup caused Johnson’s cancer, that Monsanto knew its products could cause cancer, and that Monsanto acted with “malice or oppression” when it intentionally concealed that fact.

## Roundup should be banned from school grounds. Here’s why:

**Harmful at Low Levels:** Studies show that glyphosate at levels far lower than EPA “safe levels” can affect sexual development, lead to fatty liver disease, and alter the gut microbiome.

**Multiple Health Risks:** Studies link Roundup and glyphosate to: cancer, endocrine disruption, nerve and brain damage, kidney and liver damage, behavioral issues, cell damage, disruption of the gut microbiome and metabolic pathways.

**Chronic Exposure:** Kids experience low-level chronic exposure to glyphosate based herbicides, which are found in food, rain, drinking water, soil, and on roadsides, sidewalks, parks, gardens, children’s playgrounds and school lawns.

**Children Are More Vulnerable:** Children’s bodies are less able to detoxify and expel chemicals.


## What the experts say about kids and pesticides


**American Academy of Pediatrics:** Says that childhood exposure to pesticides in general is associated with pediatric cancers, decreased cognitive function and behavioral problems.<sup>1</sup> [orgcns.org/2QlqvPU](http://orgcns.org/2QlqvPU)


**World Health Organization:** Gave glyphosate, the active ingredient in Roundup, its second-highest classification for cancer: 2A, a probable human carcinogen.<sup>2</sup> [orgcns.org/2Qi3cX8](http://orgcns.org/2Qi3cX8)


**Pesticide Action Network of North America:** Says multiple studies confirm that children are more vulnerable to harm from exposure to pesticides in general. Their bodies are less able to detoxify and expel harmful chemicals. They also interact differently with their environment, including learning by touch and hand-to-mouth behaviors.<sup>3</sup> [orgcns.org/2QIMbvm](http://orgcns.org/2QIMbvm)


## What the studies show about Roundup

 Doses of glyphosate at levels the EPA says are “safe” affected the intestinal microbiome. The study focused on newborns, infants and adolescents. It noted a significant impact on the intestinal microbiome before puberty. Further studies are needed to determine whether exposure during this critical window contributes to other health problems. (Ramazzini Institute Global Glyphosate pilot study, 2018)<sup>4</sup>

 Glyphosate inhibits normal development of nerve cells which prevents them from functioning normally. This has numerous implications for the normal development of children, especially for the brain which is the largest collection of nerve cells in the human body. (*Neuro-Toxicology*, 2016)<sup>5</sup>

 Ultra-low doses of the glyphosate disrupted the functions of numerous genes, which resulted in changes consistent with multiple kidney and liver disease problems. (*Nature*, 2017)<sup>6</sup>

 Doses of glyphosate at levels 800 times lower than those authorized in some food or feed can cause endocrine disruption, putting children and teens at risk for cancer, obesity, infertility, and neurological disorders. (*Toxicology*, 2009)<sup>7</sup>

 Acute and chronic exposure to Roundup (the full formulation, not glyphosate or its breakdown product AMPA) induced oxidative stress resulting in neural cell death and neurotoxic effects in the hippocampus region of the brain in immature rats. Oxidative stress is one of the hallmarks of cancer and a contributing factor to many chronic diseases. (*Toxicology*, 2014)<sup>8</sup>

## What you can do

- 1 Ask your school board members to ban the use of Roundup
- 2 Sign and circulate this petition to the National School Boards Association: [orgcns.org/2NcqqV9](http://orgcns.org/2NcqqV9)
- 3 Collect research on what pesticides your school uses: [orgcns.org/2Lm2lRq](http://orgcns.org/2Lm2lRq)
- 4 Share this leaflet with your school board members, PTA leaders and other parents.
- 5 Sign up for oca’s online newsletter for updates on this campaign: [orgcns.org/2QioWz8](http://orgcns.org/2QioWz8)

## Resources:

Leu, André, “Poisoning our Children: The Parents Guide to the Myths of Safe Pesticides,” Acres u.s.a., March 2018: [orgcns.org/2QkYjwj](http://orgcns.org/2QkYjwj)

Gillam, Carey, “Whitewash: The Story of a Weed Killer, Cancer, and the Corruption of Science,” Island Press, October 2017: [orgcns.org/2QkU7Nh](http://orgcns.org/2QkU7Nh)

Organic Consumers Association: Glyphosate Fact Sheet: [orgcns.org/2Qkp900](http://orgcns.org/2Qkp900)

Beyond Pesticides: “Alternatives to Using Pesticides in Schools”: [orgcns.org/2Qkp900](http://orgcns.org/2Qkp900)

Moms Across America: School Board 3-Minute Presentation: [orgcns.org/2QkZFav](http://orgcns.org/2QkZFav)

Online map of local pesticide laws: [orgcns.org/2QkpeZe](http://orgcns.org/2QkpeZe)

u.s. Right to Know: “Glyphosate: Health Concerns About the Most Widely Used Pesticide,” [orgcns.org/2ojLcyb](http://orgcns.org/2ojLcyb)

## References:

[1] “Pesticide Exposure in Children,” American Academy of Pediatrics, December 2012. [orgcns.org/2QlqvPU](http://orgcns.org/2QlqvPU)

[2] “Evaluation of Five Organophosphate Insecticides and Herbicides,” World Health Organization, International Agency on Research for Cancer, March 20, 2015. [orgcns.org/2Qi3cX8](http://orgcns.org/2Qi3cX8)

[3] Pesticide Action Network North America, website. [orgcns.org/2QIMbvm](http://orgcns.org/2QIMbvm)

[4] “The Ramazzini Institute 13-week Pilot Study on Glyphosate and Roundup . . .,” *Environmental Health*, Qixing Mao, et al, May 2018. [orgcns.org/2QiumgB](http://orgcns.org/2QiumgB)

[5] “Neuronal Development and Axon Growth Are Altered by Glyphosate . . .,” Coullery et al, *Neuro-Toxicology*, January 2016. [orgcns.org/2QkTww2](http://orgcns.org/2QkTww2)

[6] “Multiomics reveal non-alcoholic fatty liver disease . . .,” Antoniou et al, *Nature*, August 2018. [orgcns.org/2QnO76D](http://orgcns.org/2QnO76D)

[7] “Glyphosate-based Herbicides Are Toxic and Endocrine Disruptors . . .,” Gasnier et al, *Toxicology*, June 2009. [orgcns.org/2QitHM1](http://orgcns.org/2QitHM1)

[8] “Glyphosate Commercial Formulation Causes Cytotoxicity, Oxidative Effects, . . .,” Chaufan et al, *International Journal of Toxicology*, January 2014. [orgcns.org/2QiuKM5](http://orgcns.org/2QiuKM5)

For an online version of this leaflet, with live links, go to:

[orgcns.org/2zPqcq6](http://orgcns.org/2zPqcq6)



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