

# Atrazine & Health Fact sheet



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College of Public Health

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## Introduction

Atrazine is a herbicide used to control broad-leaved weeds (1). Atrazine is used abundantly in Iowa, where it is applied to 65% of planted acres of corn (2). The herbicide is predominantly used in spring and summer (3). Atrazine is an odorless, white powder that dissolves in water; however, it breaks down slowly and persists in local water sources (4).

## Exposure Sources

People can be exposed to atrazine in many ways. While not detected in food sources, atrazine is found widely in lakes, rivers, estuaries and groundwater, leaving well water users at risk of exposure (1, 3). Most people are not exposed to atrazine regularly (1). However, well water users and those living on farms and in rural communities near areas where atrazine was applied to crops or manufactured may be exposed through contaminated dirt and water.(3,4). This exposure is particularly concerning for children who dig and play in outdoor spaces that may be contaminated. Further, occupational exposure from inhalation or absorption through the skin may occur (1).

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## Health Risks Associated with Atrazine

### Cancer Health Risks

When last reviewed in 1999, the International Agency for Research on Cancer (IARC) indicated atrazine as “not classifiable” as to its human carcinogenicity, meaning there was inadequate evidence of human and/or animal carcinogenicity at the time. IARC will be releasing an updated evaluation in October of 2025. In an updated investigation of the Agricultural Health Study Cohort in 2024, atrazine exposure was associated with an increased risk of some cancers in farmers who were applying atrazine (5). Statistically significant associations were found for lung cancer, and for prostate cancer among those younger than sixty at diagnosis. Exposures to atrazine that occurred 25 years ago may lead to an elevated risk of pharyngeal and kidney cancer (5).

### Non-Cancer Health Risks

Exposure to atrazine is associated with a range of adverse health problems, primarily cardiovascular and reproductive system effects (6). The Environmental Protection Agency (EPA) established the Maximum Contaminant Level (MCL) to protect against adverse health effects to the cardiovascular system and reproductive problems associated with long-term exposure to atrazine at levels above the MCL. Some of the reproductive problems associated with this long-term exposure include an increased risk of pre-term delivery, low fetal weight, and heart, urinary, and limb defects in infants (1).

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## How is Atrazine regulated?

- The EPA established the MCL for atrazine to be 0.003 mg/L in public drinking water to protect against cardiovascular or reproductive system effects (6).
- Atrazine is a restricted-use pesticide, meaning a person must be certified to purchase and apply this herbicide, due to its potential to contaminate the water and the environment (3).
- Public water suppliers are required to test for atrazine and present results to consumers and the state through consumer confidence reports (CCR). (Visit this link to find your local CCR: <https://ordspub.epa.gov/ords/safewater/f?p=136:102:::>)

## What can you do?

- Avoid areas for 12 hours following atrazine application. Do not allow children to play in soil and water sources following the application of atrazine (3, 4).
- If living near agricultural fields, ask your local health department about testing your private well for atrazine (7).
- Avoid tracking contaminated soil into homes, especially into rooms where children live and play. Vacuum floors and dust surfaces to avoid exposure to low levels of atrazine (3).
- Granular activated carbon filtration is an effective method to remove atrazine from contaminated water (8). These filtration systems can be applied over the whole house plumbing system, or as point of use filters just before the faucet.

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