



Can Microgreens Make You Sick?

My next-door neighbor Marty and I were having a chat about his new BMW i3, eating a salad together, when he asked me out of the blue, "Can microgreens make you sick?"

Marty had been eating my microgreens for months. He told me he just read an article concerning mold on microgreens, and that it was a common thing. He wanted to know what I was doing to prevent mold, and if he ate mold, could he get sick.

Most of us can recall an outbreak of food-borne illnesses Salmonella and E.coli.

But other such pathogens – Pythium, Phytophthora, and Listeria – exist.

Although many foods contain toxins, or get them through handling or processing, adverse reactions to food is low because of the no-nonsense actions of governments around the world ([USA](#), [Canada](#), [Australia](#), for example).

The signs of a food born illness include vomiting, diarrhea, and abdominal pain, and flu-like symptoms, such as fever, headache, and body ache.

Can Microgreens Make you Sick?

When growing microgreens at home, pay special attention to the quality of the seeds and soil you use. Your most problematic issues will mold, mildew and fungi.

We consider microgreens safe to eat.

But you can avoid getting sick eating them by following the simple rules associated with eating or handling “raw food.”

Whether you buy microgreens or grow them, this post will help you identify, remedy, understand the causes of, and prevent microgreens making you sick.

Quick Reads

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The Things That Could Make You Sick

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US Food and Drug Administration | Safe Handling of Raw Produce



You can continue reading the article below, or download the PDF version here: [Can Microgreens Make You Sick?](#)

The Efforts to Keep You From Getting Sick

Every now and again we hear news of an outbreak of a food-borne illness, or someone you know got food poisoned at a restaurant.

Fresh produce can pick up harmful bacteria from many sources, from contaminated soil and water to your contaminated cutting board.

Microgreens are Safe

Sprouts are germinated seeds. You cook and eat the seed, root, stem, and underdeveloped leaves.

Salmonella and Escherichia coli O157: H7 have been the major causes of sprout-associated illness outbreaks.

Most restaurants no longer serve sprouts on their menus. Walmart Stores discontinued selling sprouts in 2010. In 2012 [Kroger announced that it would no longer sell sprouts in its supermarket chains](#).

The potential for bacteria growth is much smaller in microgreens.

Microgreens need less warm and humid conditions than sprouts do. You eat only the leaf and stem, not the root and seed.

Commercial microgreens growers must follow rigorous FDA Guidelines.

Learn how the US Food and Drug Administration is using the Food Safety Modernization Act (FSMA, 2011) to protect you.

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Microgreens Recall

In 2017 as [reported in Food Safety News](#), a grower recalled microgreens from retailers in three states because a random sample tested by the FDA found Salmonella bacteria in the sprouts.

The CDC maintains the [National Foodborne Disease Outbreak Surveillance System](#), and the [Foodborne Diseases Active Surveillance Network \(FoodNet\)](#).

I could find no record of a foodborne outbreak associated with eating microgreens.

The Things That Could Make You Sick

The following are the contaminants most associated with microgreens.

Listeriosis

Listeriosis is a food-borne infection caused by Listeria bacteria.

Common Listeria symptoms are muscle aches, fever, flu symptoms, nausea, and diarrhea.

It can be very serious for pregnant women, newborns, the elderly, and anyone with a weakened immune system.

Salmonellosis

Salmonella infection (salmonellosis) is a common bacterial disease that affects the intestinal tract.

Infection occurs through contaminated water or food.

You develop diarrhea, fever and abdominal cramps within eight to 72 hours.

Most healthy people recover within a few days without specific treatment.

Mold

Molds are microscopic fungi with branches and root that look like tiny threads.

They grow in damp and moldy environments

Exposure to molds can lead to a stuffy nose, wheezing, and red or itchy eyes, or skin.

A few molds, in the right conditions, produce "[mycotoxins](#)," poisonous substances that can make you sick.

How to Identify When You Are Sick, and the Remedy

If you believe eating microgreens made you sick, then know the symptoms so you can identify the problem to a health professional.

Know the Symptoms

If you eat microgreens than contain bad bacteria, you will get sick within 1 to 3 days.

Some people have an immediate reaction. Others see no symptoms for 6 weeks.

Unless it is a serious illness, you are unlikely to develop any chronic or life-threatening health problems.

You will recover within a short time.

The symptoms of a food-borne illness can include:

- Vomiting, diarrhea, and abdominal pain
- Flu symptoms, such as fever, headache, and body ache

Act

If you think you or a family member has a food-borne illness, contact your healthcare provider.

Contact the nearest [Poison Control Center](#). They give poison advice and treatment advice by phone. You can reach any poison centers by calling the same telephone number, **1-800-222-1222**.

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For more information on preventing food-borne illness, see Safe Food Handling: Four Simple Steps, <https://www.fda.gov/media/107837/download>

Other Worldwide Poison Centers

- Poison Centers and Clinical Toxicologists across the World:
<https://www.eapcct.org/index.php?page=links>

Taking Care When Growing at Home

If you're growing or planning to grow microgreens at home, there are a few food-safety items you need to cover.

Radish, watercress, Swiss chard, and Thai basil microgreens are very susceptible to disease.

So, it is very important you buy seeds from a reputable company and choose soil free of harmful bacteria.

Avoiding Root Rot

Your most serious threat to microgreens is Pythium and Phytophthora.

Pythium is a fungus that causes root rot in young seedlings. This is a persistent problem in areas over-irrigated or not drained right.

Phytophthora are a special fungus called oomycetes.

They are water molds and destroy the root systems of microgreens.

Preventing Seedling Damping Off

The cotyledons (first leaves), roots and stems of microgreens seedlings can get an infection called "dampening off."

It is a fungus or mold that grows in cool and wet conditions.

Your seedlings are infected if they cannot germinate, or the first leaves are limp or look brown, or you see fluffy white cobweb growth.

Fuzzy white mold is a common issue for microgreens, but the fungus does not hurt your growing plants.



Helpful hint: Don't mistake the tiny roots of microgreens for mold. Basil seeds develop a jelly-like coating that looks moldy. This is normal.

I have lost whole trays of microgreen seedlings to root rot. Make sure you keep your soil damp, but not too wet.

You should use sterilized containers with good drainage and clean, new potting soil.

I haven't tried this, but some growers suggest you use a heating pad under the growing container to warm soil to 70-75°F.

There is no cure for plants that have damping off. You can prevent the problem by providing good air circulation.

Mildew

If you can't find microgreens seeds to grow, look for "food grade" or "organic" labels and read the fine print.

Seeds are very susceptible to disease.

Inspect your growing seeds for [mildew](#).

You should try sterilizing your seeds with food grade hydrogen peroxide.

Helpful Hint: Cinnamon

Home gardeners swear by cinnamon.

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Cinnamon will help prevent mildew by killing the fungus.

Make a cinnamon spray. Stir some cinnamon into warm water and allow it to steep overnight. Place in your misting bottle.

The Microgreens to Avoid

After growing about 10 different varieties of microgreens, some don't taste nice, like Swiss chard. They don't make me sick.

But I know of some plants that I wouldn't, and you shouldn't, grow or eat.

Solanine

Tomatoes, eggplants and potatoes are from the [nightshade family](#).

Don't grow them as microgreens.

You should discard the green part of potatoes. It is bitter and contains solanine, which eaten in great quantities can make you sick. Symptoms of solanine poisoning include:

- Diarrhea
- Fever or hypothermia
- Headache
- Slow pulse and/or breathing
- Stomach or abdominal pain
- Vomiting

Oxalic Acid

We use oxalic acid in bleach and antirust products!

It inhibits calcium absorption which can lead to kidney stones.

Eat too much and you might vomit and get weak.

Dark leafy green vegetables such as kale, spinach, and rhubarb contain plentiful amounts of oxalic acid (or oxalate). But don't worry.

The [research](#) I found says if you're 145 pounds (65.7 kg), you'd need to eat about 11 pounds (5 kg) of rhubarb leaves, or 7 pounds (3.2 kg) of spinach at one sitting before somebody would need to call the ambulance.

Fagopyrin

Buckwheat contains [fagopyrin](#), a substance that when ingested in significant quantities causes your skin to become hypersensitive to sunlight.

Exposed areas of your skin would turn pink or red within minutes, and the area burns. Some people also get a numb, fuzzy, and buzzing feeling.

Unlike the shoots of the plant, however, buckwheat microgreens contain only trace quantities of fagopyrin, and don't pose a problem.

However, I avoid them.

Taking Precautions

We consider microgreens safe to eat.

But, as with any “raw food”, pregnant women, the elderly, young children, and people with weakened immune systems are at risk of serious illnesses, life-threatening infections and other complications.

But you can avoid getting sick eating microgreens by following the simple rules associated with eating or handling “raw food.”



When buying them online, at the farmers market, or at upscale food stores, look for the certified organic label.

If you're growing them yourself, start with sterile containers, certified organic seed and seedling mix, good air circulation, and not too much water or humidity.

Wash your hands.

Always cut your microgreens above the stem/root line.

Wash the microgreens before eating, even if the package says they have been “triple-washed.”

Store your microgreens in the fridge in a ventilated container.

Can microgreens make you sick? What do you think? Comment below.



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I'm the co-founder of JPureFarms, a startup. I live in Atlanta, Georgia, and enjoy urban farming, growing and writing about microgreens and their incredible health potential. I love my greens!