Safety & Prep

Why Fermentation Is Safe

Why Fermentation Is Safe

The number one challenge most people face when starting to make fermented foods is the fear of making themselves and their family sick.

I had the same fear too, because like you, I was raised NOT to leave food sitting on the counter.

The very idea of fermenting food was both counter-intuitive and intimidating. I hesitated to make my first batch of sauerkraut for weeks based on these fears and when I finally made it, I was so freaked out, that I threw it away.

I mean, I was supposed to let food rot on my counter and then eat it??! That was healthy!? I thought maybe I'd gone too far this time in my pursuit of health.

What helped my get over the fear of making myself sick was learning the science behind fermentation. How did it work? Why was it safe?

What Is Lacto-Fermentation?

Lacto-Fermentation

The oldest form of food preservation in the world.

All the vegetable recipes in this course use lacto-fermentation. The "lacto" stands for lactobacillus bacteria. Not to be confused with lactose (lacto-fermentation doesn't use dairy).

Lacto-fermentation is the oldest form of food preservation in the world. It involves only salt, water and vegetables. The salt-water brine creates an anaerobic environment (free of oxygen) where only lactobacillus bacteria can survive. The lactobacillus bacteria act as a preservative, keeping harmful bacteria from living in the ferment.

The article, "Lacto-fermentation - How It Works" written by Food Preservation Expert, Leda Meredith explains the stages as...

Stage 1
Lacto-Fermentation

Vegetables are submerged in a brine, salty enough to kill harmful bacteria.

In stage one of lacto-fermentation, vegetables are submerged in brine that is salty enough to kill off harmful bacteria. The Lactobacillus good guys survive this stage and begin stage two.

Stage 2
Lacto-Fermentation

Lactobacillus eat the sugars and convert it to lactic acid.

Creates an acidic environment that safely preserves the vegetables.

In stage two of lacto-fermentation, the Lactobacillus organisms begin converting lactose and other sugars present in the food into lactic acid. This creates an acidic environment that safely preserves the vegetables and gives lacto-fermented foods their classic tangy flavor.

Stage 1
Clear brine.

Stage 2
Cloudy brine.

The result is a food that's loaded with probiotics and flavor. Eating probiotic foods like this strengthens your immune system, increases vitamin and mineral absorption and help balance hormones.

How Safe Is Lacto-Fermentation?

Lacto-fermentation is really safe. The brine creates an environment where harmful bacteria can't survive making the food safe and healthy for eating.

You must let it ferment enough to allow the stages as described above to happen. You can tell a ferment is safe to eat if it smells sour and pleasant. If it smells rancid, like broccoli or lettuce rotting in your fridge, then something went wrong and it should be thrown out.

Up next, I'll teach you how to tell if your ferment is spoiled or not.

Other reads: "Is There A Risk Of Botulism In Fermented Foods?"