

- Speaker 1: [00:00](#) Welcome to the old fashion on purpose podcast. Today's episode is absolutely crucial if you are wanting to start canning or maybe you already are canning. I've noticed a lot of really unsafe canning information floating around the Internet lately and a lot of it is being perpetuated because people don't fully understand the dangers of something called botulism. We're going to dive deep into this topic of botulism today and it's actually more interesting than you may think. So keep listening so you know how to create those delicious home canned foods and keep your family safe. I'm your host Jill winger and for the last 10 years I've been helping folks all over the world learn how to leave the rat race and create the life they really want by taking the best of the old ways and weaving them into our every day modern lives.
- Speaker 1: [01:09](#) When I talk to folks about canning or why they haven't started canning yet, the number one concern I hear popping up the most is in relation to the fear of food poisoning or botulism. Now this is a very legitimate concern, right? This is a not an unfounded fear. This is a real deal because nobody wants to get sick from home canned foods and above all, no one wants to make their family members sick either. Botulism thrives in room temperature, oxygen deprived, moist environments. And when you think about it, that's exactly what a jar of canned food provides, right? It's kind of like the perfect little house for potential botulism. Now the scary part of botulism is that the health effects go way beyond just a simple stomach ache or kind of feeling woozy for a day or two. It can actually cause really severe health issues, paralysis and even death.
- Speaker 1: [02:21](#) So it is a big deal and you do want to do everything you can to prevent ever having to worry about it. Now all of that being said before you sell all your mason jars and vow to never touch a jar of home canned food., again, hear me out, because as scary as botulism may be, it's also very, very simple to mitigate the risks of botulism, all you have to do is follow a few easy guidelines. Before we dive into those guidelines, I want you to understand the mechanisms of botulism just a little bit more so you can understand where it comes from and why it can be an issue. Clostridium botulinum, I think I said it right, you can correct me if I'm wrong, but that's the official name of the bacteria that causes botulism. The spores are actually everywhere.
- Speaker 1: [03:27](#) They're floating around right now. They're in the soil. They might be on meats, they might be on your vegetables, especially, you know, vegetables that are coming straight out of the soil like a potato or a carrot. However, just because these spores are floating around or on something doesn't mean

they're going to cause issues in that form. They don't start becoming dangerous until they have a chance to be in those oxygen deprived damp environments. Now, once they're in that sort of environment, that's where they get really happy and the spores have the potential to grow into the active bacteria and produce the neurotoxins, which can make us very, very sick. So in and of themselves, the spores are a complete non-issue until they're given the proper environment. Here's the part about botulism that's always bothered me or made me a little extra cautious because when we think about wild food, usually it's moldy, stinky, fuzzy, fizzy, or just overall unappealing, right?

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Smells bad, we're not going to touch it, you know, no matter what. The tricky part with botulism is that it doesn't always cause food to have an off taste or a bad smell. So it can be kind of difficult to know if your food is actually contaminated. Now again, I'm not saying this to make you scared and you know, keep you from ever canning at home because I'm going to say it again. As long as you follow tested recipes and approved techniques, you don't have to worry about it. It's not like a sneaky villain who will, you know, come in and contaminate your foods at any given time and you never know. We can absolutely prevent it from even perpetuating in our canned foods as long as we're following the rules. The way that we prevent botulism from becoming an issue is with two secret weapons.

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And those weapons are high heat and acidity, right? And those are the two things that we bring into canning techniques and processes that ensure that we never have to worry about our foods being dangerous. Botulism cannot survive in temperatures over 240 degrees Fahrenheit and it can also not survive with acidity that is lower than 4.6 the Ph. Okay. Those are really important for you to know. High Heat and acidity. So let's talk a little bit about the importance of acid in home canned foods. You'll hear a lot in the world of canning, you'll hear people refer to, oh this is the low acid food, this is a high acid food. And the reason this is referred to so frequently is because the acidity content of a given food will determine what canning methods should be used to preserve it safely. Just to underscore it again, in canning a high acid food is any food with a Ph of less than 4.6 so this is going to include things like pickles, you know they have vinegar in them, relishes, most fruits, you know, peaches, apples, they have acid in them, jams, jellies, things like that.

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They are high acid. And so when we take the natural acid content of those foods or foods that are, you know, made with

additional vinegar or lemon juice, we combine that with the boiling water temperatures of a water bath canner, then that is 100% efficient to keep that particular foods safe and prevent botulism from forming. And that's why you can absolutely use a water bath canner for jams, jellies, chutneys, pickles and so on. Now the difference comes in with low acid foods. Things like most vegetables, you know, green beans, carrots, whatever, meat, soups, broths, and so on. Now these foods obviously don't contain really enough acid, hardly any acid and that is not going to be able to stop the growth of botulism. And you know, in some of these instances, like for example, we can add acid to green beans and make pickled beans.

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That's great. But in other foods, let's say if we want to can chicken, we don't want to add cups of vinegar to the chicken because that's just going to be a little bit gross. We want to be able to leave that chicken as is and still be able to can it. And in order to do that, we must use a pressure canner. High acid foods think water bath canner, for low acid foods, think pressure canner. Now the magic of pressure canning is that it has the ability to heat the foods in the jars to high enough temperatures to kill any and all lingering botulism spores without the presence of extra acid. Keep in mind, remember we said botulism cannot survive past temperatures of 240 degrees Fahrenheit and a pressure canner will go to that point and beyond. So it's got it covered. We're a hundred percent safe.

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Now we contrast that with water bath canning. Boiling water is about 212 degrees Fahrenheit, right? So that's way below that safe point, which is why the acid is required there. Now that's really all you need to know as long as you're using a pressure canner for low acid foods and making sure the foods that you're canning in your water bath canner have enough acid, you're all set. Now a little side note here, cause I hear this a lot on the internet, you may have had a great grandma or a relative or a friend who cans low acid foods on her homestead with a water bath canner and she never had a single issue. Right? I've heard stories of folks during the Great Depression canning meat on an open flame, you know, pot with water on an open flame, putting some wax in the top of the jars and that meat was fine.

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Okay, so can you get away with that even today? Yeah, you probably can. Some of the time. The question is do you really want to be playing Russian roulette with your canned foods? I know for me that's 100% a no, that is not worth the risk for me. I'm going to advise you that that is not worth the risk for you either. So stick with the approved processes and guidelines and the ones you can trust. One of my favorites is the national

center for home food preservation. The ball blue book is a great resource and also the USDA has some canning recommendations. Now I like to just reassure people these rules and methods are not there to try to limit your liberty in the kitchen and it's not the government trying to come in and control your food storage. It's really just to lower these instances of botulism because the home canned foods were a very high source of these in these cases where botulism was being discovered and once more of these scientifically researched methods became more commonplace, those numbers went way down so we can make those delicious foods and be confident while we're doing so.

Speaker 1: [11:47](#) So canning is not scary, I promise. I've been canning for about 10 years now and I've never had a single issue with a contaminated jar. I follow the guidelines, I skip the outdated and unsafe methods even if they are recommended by the people of the Internet and we enjoy delicious home canned foods with zero worry. Now hold on just one second because if you're thinking, yeah, whatever, still feeling a little nervous, I'm not sure it's worth the effort for me to understand acidity and temperatures. Let me assure you that it really is and the reason I love canning so much is that it's, number one, allows us to avoid waste when we have a lot of food coming in from the garden. It also allows us to get discount produce in bulk at the farmer's market or the grocery store. You know, sometimes at our market towards the end of this season they'll have bag days at certain stands and you can go in and fill a bag for like five bucks of whatever you want.

Speaker 1: [12:57](#) So if I'm going to go stack up, usually it's going to be in quantities that my family is not going to be able to eat before it spoils. So I can use my canners to preserve that food for later in the year. And I also love canning because it allows me to make homemade shelf-stable pantry staples with healthy ingredients. So I can skip the junky versions at the grocery store. And some of my favorite pantry staples to make with my pressure canner are things like homemade beef stew. I love, love, love canning broth. For example, I will, you know, when we have a chicken or maybe Thanksgiving Day Turkey, I will make broth, a whole bunch of it, couple gallons, and that it can can that broth in quart size jars or pint-sized jars and have homemade broth ready to go at a moment's notice.

Speaker 1: [13:55](#) And it doesn't require me to clog up my freezer because you can freeze broth. That totally works, but it just takes up a lot of room. You risk the jars breaking in the freezer. You have to thaw it out, it's just a little more cumbersome. Okay. Friends, if your

head is spinning just a little bit and all of the details and numbers and processes that I've shared today and relate in relation to canning and being safe. I've got you covered. I actually created a full, very comprehensive ebook that contains diagrams, charts, safety tips and rules, and some of my favorite canning recipes so you can get started canning safely without the headache. Now, if you go to learnhowtocan.com you can grab all the details and some bonus goodies as well, and that's it. My friends, thanks for listening. I can't wait for you to dive into the world of canning and create those amazing foods for your family. If you have a minute, I would love it if you could hit subscribe and leave a review over on iTunes and I will chat with you next time in that next episode of the old fashioned on purpose podcast.