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Click on the printer icon that looks like this: (at the top left, to the right of "save a copy") to print! See <u>www.pickyourown.org/alllaboutcanning.htm</u> for many other canning directions and recipes

# How to Make Fresh Tomato Sauce with a Water Bath Canner!



Making canned tomato sauce is something easy to do and will make your tomato dishes taste so much better. Home-canned tomato sauce have been a tradition for many generations. In the middle of the winter, you can use the tomato sauce to make a fresh spaghetti sauce, lasagna, chili, or other tomato-based meals for that fresh garden taste.

Here's how to do it, in easy steps and completely illustrated. This method is so easy, ANYONE can do this! It's a great thing

to do with your kids! All you need is a water bath canner (a HUGE pot with a lid and jar tongs can substitute).

<u>If you have a pressure canner, you may want to use this version for pressure</u> <u>canners instead</u>, as it is faster! <u>http://pickyourown.org/canning\_tomatosauce\_pressure.htm</u>

I've added <u>free labels for your jars here</u>, in a Word format! Just download, edit, and print in label paper.

And if you'd rather can your tomatoes or freeze your tomatoes, see this page!

## Ingredients

- Tomatoes about 35 to 45 lbs to make 7 quarts of finished sauce
- lemon juice fresh or bottled, about 1/2 cup

# Equipment

- 1 Water bath Canner (a huge pot to sterilize the jars after filling (about \$30 to \$35 - \$30 at mall kitchen stores and local "big box" stores. Note: we sell many sizes and types of canners for all types of stoves and needs see <u>canning supplies</u>). Tomatoes are on the border between the high-acid fruits that can be preserved in a boiling-water bath and the low-acid fruits, vegetables and meats that need pressure canning
- 1 large pot (to scald the tomatoes, step 3) and 1 small pot to sterilize the lids.
- Pint or quart canning jars (Ball or Kerr jars can be found at Publix, Kroger, Safeway and local "big box" stores - about \$8 per dozen jars including the lids and rings). Be sure to get wide mouth jars to fit the pickles in! Pint size works best!
- Lids thin, flat, round metal lids with a gum binder that seals them against the top of the jar. They may only be used once.
- Rings metal bands that secure the lids to the jars. They may be reused many times.
- Jar grabber (to pick up the hot jars)
- Lid lifter (has a magnet to pick the lids out of the boiling water where you sterilize them. (\$2 at mall kitchen stores and local "big box" stores, but it's usually cheaper online from our affiliates)
- Jar funnel (\$3-Grocery stores, like Publix, Kroger and Safeway and local "big box" stores; sometimes even hardware stores)
- Large spoons and ladles

Directions - Step by Step, How to Make Home Canned Tomato Sauce from Fresh Tomatoes

Step 1 - Selecting the tomatoes

It's fun to go pick your own and you can obviously get better quality tomatoes!

At right is a picture of tomatoes from my garden - they are so much better than anything from the grocery store. And if you don't have enough, a pick-you-own farm is the pace to go! At right are 4 common varieties that will work:

Top left: Top right: Lemon Beefsteak Boy, yellow Bottom left: Roma, paste-Bottom right: Better Boy type

The picture at right shows the best variety of tomato to use: Roma; also called paste tomatoes. They have fewer sides, thicker, meatier walls, and MUCH less water. And that means thicker sauce in less cooking time!

Also, you don't want mushy, bruised or rotten tomatoes!





*For thin sauce* – An average of 35 pounds is needed per canner load of 7 quarts; an average of 21 pounds is needed per canner load of 9 pints. A bushel weighs 53 pounds and yields 10 to 12 quarts of sauce-an average of 5 pounds per quart.

*For thick sauce* – An average of 46 pounds is needed per canner load of 7 quarts; an average of 28 pounds is needed per canner load of 9 pints. A bushel weighs 53 pounds and yields 7 to 9 quarts of sauce-an average of 6½ pounds per quart.

Step 2 - Get the jars and lids sterilizing



The dishwasher is fine for the jars; especially if it has a "sterilize" cycle. I get that going while I'm preparing everything else, so it's done by the time I'm ready to fill the jars. If you don't have a dishwasher, submerge the jars in a large pot (the canner itself) of water and bring it to a boil.

Be sure to let it go through the rinse cycle to

get rid of any soap!

#### Get the canner heating up

Fill the canner about 1/2 full of water and start it heating (with the lid on).



#### Start the water for the lids

Put the lids into the small pot of boiling water for at least several minutes. Note: everything gets sterilized in the water bath (step 7) anyway, so this just helps to ensure there is no spoilage later!)



Step 3 - Removing the tomato skins

Here's a trick you may not know: put the tomatoes, a few at a time in a large pot of boiling water for no more than 1 minute (30 - 45 seconds is usually enough)

then....

Plunge them into a waiting bowl of ice water.

This makes the skins slide right off of the tomatoes! If you leave the skins in, they become tough and chewy in the sauce, not very pleasant.

Step 4 - Removing the skins, bruises and tough parts

The skins should practically slide off the tomatoes. Then you can cut the tomatoes in quarters and remove the tough part around the stem and any bruised or soft parts.









Why remove the skins? They become tough when you cook them! Some people use a juicer and then cook the resultant juice down. It takes more time, but there's nothing wrong with that approach.

Step 5 - Removing seeds and water

After you have peeled the skins off the tomatoes, cut the tomatoes in half. Now we need to remove the seeds and excess water.

Step 6 - Squeeze of the seeds and water

Just like it sounds: wash your hands then squeeze each tomato and use your finger or a spoon to scoop and shake out most of the seeds. You don't need to get fanatical about it; removing just most will do.



#### Step 7 - Drain the tomatoes

Toss the squeezed (Squozen? :) tomatoes into a colander or drainer, while you work on others. This helps more of the water to drain off. You may want to save the liquid: if you then pass it through a sieve, screen or cheesecloth, you have fresh tomato juice; great to drink cold or use in cooking! By draining the water off now, you'll end up with a thicker tomato sauce in less cooking time! And that preserves vitamins (and your sanity).



Step 8 - Combine and bring the sauce to a gentle simmer



Combine the tomatoes in a big pot.

There's generally no need to add liquid, most types of tomatoes have so much water, we will need to boil it down to drive off much of the water to thicken the sauce. Simmer in large-diameter saucepan until sauce reaches desired consistency. Boil until the volume is reduced by about one-third for thin sauce, or by one-half for thick sauce.

You don't need to overcook it; just bring it to boiling to sterilize it and cook down the tomatoes.

As they cook, the tomatoes will fall apart into sauce with out much need of mushing!

Step 9 - Fill the jars with sauce

Fill them to within ¼-inch of the top, seat the lid and hand-tighten the ring around them.

NOTE: if you want to freeze the sauce instead, just fill your freezer containers (I like Ziploc freezer bags in the quart size), fill them completely, eliminate air pockets, seal them and pop them in the freezer. You're done!



Step 10 - Add 2 Tablespoons of lemon juice and liquid



After you fill each quart jar with tomatoes, add 2 tablespoons of lemon juice (or 1 Tablespoon per pint jar). This helps to reduce the odds of spoilage and to retain color and flavor. Then make sure it is filled to ¼-inch of the top with sauce.

Step 11 - Put the lids and rings on

Just screw them on snugly, not too tight. If the is any tomato on the surface of the lip of the jar, wipe it off first with a clean dry cloth or paper towel.

Be sure the contact surfaces (top of the jar and underside of the ring) are clean to get a good seal!

Step 12 - Boil the jars in the water bath canner

Put them in the canner and keep them covered with at least 1 inch of water. Keep the water boiling. Process the jars in a boiling-water bath for 35 minutes for pints and 40 minutes for quarts. Remember to adjust the time if you are at a different altitude other than sea level! Pressure canners work better for tomato sauce and other low acid foods - you'll get less spoilage with a pressure canner.





I prefer a pressure canner as the higher temperatures and shorter cooking time result in better flavor and less spoilage. For more information or to order one, click on <u>Pressure Canners</u>. The recipe and directions for pressure canning tomatoes are coming.

Recommended process time for Standard Tomato Sauce in a boiling-water canner.								
		Process Time at Altitudes of						
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 3,000 ft	3,001 - 6,000 ft	Above 6,000 ft			
Hot	Pints	35 min	40	45	50			
	Quarts	40	45	50	55			

#### Step 13 - Done

Lift the jars out of the water and let them cool without touching or bumping them in a draft-free place (usually takes overnight) You can then remove the rings if you like. Once the jars are cool, you can check that they are sealed verifying that the lid has been sucked down. Just press in the center, gently, with your finger. If it pops up and down (often making a popping sound), it is not sealed. If you put the jar in the refrigerator right



away, you can still use it. Some people replace the lid and reprocess the jar, then that's a bit iffy. If you heat the contents back up, re-jar them (with a new lid) and the full time in the canner, it's usually ok.

This document was adapted from the "Complete Guide to Home Canning," Agriculture Information Bulletin No. 539, USDA, revised 1994.

## Frequently Asked Questions about Canning Tomato Sauce

#### Why do my tomatoes separate from the liquid?

A frequent problem is the separation of water from the tomatoes. Why does the water separate from the solids in tomatoes?

Scenario 1 - liquid at the top and solids at the bottom

Home canned tomatoes, tomato juice, and tomato sauces with liquid at the top and solids at the bottom is quite normal. It only reflects that the juice was made prior to heating. For example, the tomatoes were chopped, run through the steamer, sieve, or food mill while still raw and prior to heating.

As soon as they are chopped or crushed, enzymes start to break down the pectin that helps to hold tomato cells together. The enzyme that causes separation is activated by exposure to air and inactivated by heat. In commercial production, tomatoes are flash heated nearly to boiling in a matter of seconds, using equipment not available to consumers. Because the pectin holding tomato cells together is not exposed to air when cold, it remains intact, and a thick bodied, homogeneous juice is produced.

# The solution is to leave tomatoes whole or in large chunks (do not chop). Heat before chopping or juicing to minimize the separation.

The best way to do that at home is to heat quartered tomatoes quickly to boiling temperatures WHILE crushing. You can also heat the blanched, peeled whole tomatoes in the microwave, then crush them!

Make sure the mixture boils constantly and vigorously while you add the remaining tomatoes. Simmer 5 minutes after all tomatoes are added, before juicing. If you are not concerned about juice separating, simply slice or quarter tomatoes into a large saucepan. Crush, heat and simmer for 5 minutes before juicing.

Scenario 2 - liquid at the bottom and solids at the top (note the photo is step 10)

What about the reverse: liquid at the bottom and solids at the top? That indicates too much preheating (more than 5 minutes). Pectin breaks down when it is overheated; then separation results. If separation occurs, just shake the jar before opening or decant the water off.

References: Ohio State University

Summary - Cost of Making Homemade Tomato Sauce -									
makes 7 pint jars, 16 oz each or 7 quart jars*									
Item	Quantity	Cost in 2008	Source	Subtotal					
Tomatoes	20 - 25 lbs (to make about 16 cups of prepared tomato)	free from the garden, or \$0.50 cents at a PYO	Garden	\$0.00					
Canning jars (pint size, wide mouth), includes lids and rings	7 jars (pint or quart)	\$8.00/dozen	Grocery stores, like Publix, Kroger and Safeway and local "big box" stores; sometimes Big Lots and even hardware stores	\$4.50					
Lemon juice	7-14Tablespoons (1 tablespoons per pint jar, 2 per quart jar)	•	Grocery stores, Publix, Kroger	\$0.50					
Total			\$5.00 total or about \$0.71 per jar INCLUDING the jars - which you can reuse!						

\* - This assumes you already have the pots, pans, ladles, and reusable equipment. Note that you can reuse the jars! Many products are sold in jars that will take the lids and rings for canning. For example, Classico Spaghetti sauce is in quart sized jars that work with Ball and Kerr lids and rings. Note that the Classico's manufacturer does not recommend reuse of their jars: <u>see what they have to say</u> <u>on this page:</u>

### Answers to Common Questions

What did I do wrong if my jars spoil?

Tomatoes are a low acid fruit - adding lemon juice helps, processing at least 35 minutes in the water bath canner, or better still, using a pressure canner almost eliminates spoilage. If you don't have a pressure canner, you must boost the acid level of the sauce, by adding 2 tablespoons of lemon juice or 1/2 teaspoon of citric acid per quart of sauce.

The question everyone asks: Can you add meat?

With a water bath canner, absolutely, definitely NOT. The temperatures do not get high enough to kill the type of bacteria that can attack meat and make you sick, or even kill you. However, with a pressure canner, it IS possible. <u>I have complete directions here!</u> I don't do it, simply because... have you ever tasted canned meat? Yes, it is called SPAM. My recommendation is to can without the meat and add fresh browned ground meat or meatballs when you use the sauce!

I have read in other homemade tomato sauce recipes that you need to cook the mixture for at least 4-5 hours. Is this necessary?

I suppose if you really want to make sure that absolutely no vitamins survive, you could cook it that long! :) The only reason people used to tomato sauce that long was the Roma paste-type tomatoes, with thicker walls, meatier with fewer seeds and less water didn't exist, so they had to cook it for hours to get rid of water and thicken it. And of course, modern sauce mixes that contain a little bit of corn starch as a thickener, also help shorten the time.

And for those who want to go strictly organic and au naturale, my method of squeezing out the excess water and seeds eliminates much of the excess juice (which you can save as tomato juice for drinking) and lets you start with a thicker tomato pulp which means much shorter cooking time!

This document was adapted from the "Complete Guide to Home Canning," Agriculture Information Bulletin No. 539, USDA, revised 2006.

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Other Equipment:

From left to right:

- 1. Jar lifting tongs to pick up hot jars
- 2. Lid lifter to remove lids from the pot of boiling water (sterilizing )
- 3. Lid disposable you may only use them once



- 4. Ring holds the lids on the jar until after the jars cool then you don't need them.
- 5. Canning jar funnel to fill the jars and keep the rims clean.