

Macaron Troubleshooting Guide



My complete macaron troubleshooting guide will help you figure out what is happening when your macarons don't turn out perfectly. I'll give you tips and advice on how to solve the issues so that they work out wonderfully next time. They always get better with practice!

If you are just getting started, make sure to check out my [beginner's guide to making macarons](#) and some fun [macaron flavor combinations](#).

Everyone knows that macarons are a finicky dessert to make. They aren't exactly difficult, but there are a ton of reasons why they might not turn out perfectly.

Here is a list of everything that might have gone wrong with your macarons as well as how to fix it again. Don't give up. You'll be a macaron master in no time!

Table of Contents

Macaron Troubleshooting Guide.....	1
Table of Contents.....	1
Macaron Issues At A Glance.....	2
1. Cracked Macarons.....	5
2. Porous Macarons.....	6
3. Flat & Crispy Shells.....	7
4. Bumpy, Grainy, or Pointed.....	8
5. Hollow Shells.....	8
6. Shells with Air Bubbles.....	9

<u>7. Ruffled Feet.....</u>	<u>10</u>
<u>8. Soft Shells.....</u>	<u>10</u>
<u>9. Speckled Shells.....</u>	<u>11</u>
<u>10. Lopsided.....</u>	<u>11</u>
<u>11. Wrinkled Shells.....</u>	<u>12</u>
<u>12. No Bottom.....</u>	<u>12</u>
<u>13. Misshapen.....</u>	<u>13</u>
<u>14. Bottom Comes Off.....</u>	<u>14</u>
<u>15. Browned Shells.....</u>	<u>14</u>
<u>16. No Feet.....</u>	<u>15</u>
<u>17. Spread Feet.....</u>	<u>15</u>

Macaron Issues At A Glance



- Cracked
 - Not resting long enough
 - Too close to the heat source
 - Too much food coloring
 - Using a dark baking sheet
 - Under whipped meringue
 - High oven temperature
 - High humidity
 - Air bubbles
- Bumpy, Grainy, or Pointed
 - Under mixed batter
 - Not sifting ingredients

- Air Bubbles
 - Not tapping the baking sheet
 - Over whipped meringue
 - Not popping the bubbles
 - Improper macaronage
- Soft Shells
 - Under whipped meringue
 - Under baked
- Speckled Shells
 - Oily almond flour or cocoa
 - Over mixed batter
 - Under baked
- Wrinkled Shells
 - Too much cocoa powder
 - Overheating the egg whites (*Swiss meringue*)
 - Oily almond flour
- Misshapen
 - Over mixed batter
 - Piping technique
 - Not using a template
 - Warped baking sheet
- Spread Feet
 - Over mixed batter
 - High oven temperature
- Porous
 - Under whipped meringue
 - Broken meringue (*from grease or water*)
 - Oily almond flour
 - Too much cocoa powder
- Flat & Crispy Shells
 - Over mixed batter
 - High oven temperature
 - Too much food coloring
- Hollow Shells



- Over whipped meringue
- Over or under-mixed batter
- Resting too long
- Under baked
- Oven temp too high or too low
- Ruffled Feet
 - Over mixed batter
 - Over whipped meringue
 - High oven temperature
- Lopsided
 - Resting too long
 - Uneven heat (*not rotating baking sheet*)
 - Tall-rimmed baking sheets
- No Bottom
 - Low oven temperature
 - Using a double pan
 - Under baked
 - Too far from heat source
- Bottom Comes Off
 - Underbaked
 - Low oven temperature
 - Not letting the macarons cool
- No Feet
 - Low oven temperature
 - Too far from heat source
 - Resting too long
- Brownd Shells
 - High oven temperature
 - Over baked
 - Using A Dark Baking Sheet



1. Cracked Macarons

Cracked shells are one of the most common issues you might come across. Here are some reasons why your shells have cracked.

<https://bakeitwithlove.com/macaron-troubleshooting-guide/>

Not Resting Long Enough

Your macarons need enough time to dry so that they form a skin around the outside. Without a skin, the steam can be released from anywhere (*instead of just the bottom*), which causes cracks.

You'll know they have rested long enough when they are no longer shiny or sticky to the touch. Keep in mind that macarons with a lot of added food dye will probably take longer to dry.

High Humidity

Excess moisture can lead to cracked macarons (*same as with the issue of not resting long enough*). If you live in a particularly humid environment or it is a rainy day, you may have some problems with your macarons drying properly.

I've even seen some people place a dehumidifier in the kitchen while making macarons.

You might want to try out a recipe for macarons that doesn't require drying if it is always extremely humid where you live.



Under Whipped Meringue

If your meringue isn't strong enough (*it hasn't reached stiff peaks*), then it could lead to cracks in your shells. Make sure that when you pull the whisk out of your meringue, it stands up at a point and doesn't droop down.

Too Close To The Heat Source

Try to bake with your macarons on the middle or slightly lower rack in the oven. If it is too close to your source of heat, then it may crack.

High Oven Temperature

I recommend picking up an inexpensive oven thermometer to be able to accurately determine your oven's temperature. If you still have problems, try experimenting with lowering the temperature.

Too Much Food Coloring

First of all, if you are coloring your macarons, you should always use gel food coloring to reduce the excess moisture as much as possible. Some colors require a lot of dye (*like red*) to get a bright color.

If you do use a lot of food coloring, make sure you give them plenty of time to dry before baking them. You want as much moisture removed as possible. They should be dry to the touch when you pop them into the oven.

Using A Dark Baking Sheet

Dark baking sheets retain more heat than their lighter counterparts. I always recommend using silver baking sheets, especially for macarons. Too much heat can cause them to crack.

Air Bubbles

Make sure you tap the baking sheet on the counter and pop any lingering air bubbles. If too many air bubbles stick around, they can cause the shells to crack.



2. Porous Macarons

Porous macarons are covered with tons of tiny craters. This is why that can happen:

Under Whipped Meringue

If your meringue isn't strong enough, it can cause your shells to appear porous. Make sure you whip it until the meringue has stiff peaks.

Broken Meringue

Always use glass or metal mixing bowls and make sure to quickly wipe them down with vinegar. This removes any lingering grease or fat particles from your equipment.

If you introduce even the tiniest amount of fat or water, it can cause your meringue to break. Make sure you don't get any egg yolks accidentally mixed into your egg whites, either!

Oily Almond Flour

If your almond flour feels especially oily, don't use it. Go ahead and pick up a new package because this oiliness will affect your macarons.

Too Much Cocoa Powder

Cocoa powder is high in fat content. Using too much can throw off the balance of your meringue, since meringue and fat don't get along.

Make sure to follow your recipe exactly or try a new recipe.

3. Flat & Crispy Shells



Over Mixed Batter

The consistency of your macaronage is crucial. As you continue to fold the batter, it becomes thinner and more fluid.

If your batter is overmixed, it will spread out in the oven and become flat. Then, the heat from the oven will make them crispy.

Fold your batter slowly and check the consistency often in order to avoid accidentally over-mixing it.

High Oven Temperature

If your oven is too hot, your macarons may crack and then deflate. Use an oven thermometer for the best accuracy.

Bonus Ingredients

Some macaron recipes add extra ingredients, such as crushed cookies, freeze-dried fruit, or ground nuts. Make sure to carefully follow your recipe, as there is an amount that can be safely added.

If you add too much of these extra ingredients, you could throw off the balance of the macarons and cause them to flatten.

Too Much Food Coloring

If you're a beginner at making macarons, try to be light-handed with any food dye. It adds excess moisture to your shells.

4. Bumpy, Grainy, or Pointed



Under Mixed Batter

Your batter starts out very thick when you first begin mixing. As you continue to fold it, it will thin out and become more fluid.

The ideal consistency will move similarly to lava. If you have under-mixed the batter, it won't be fluid enough to smooth out after piping and will bake with a pointed tip.

If you haven't baked them yet, you can scrape them back into the bowl and fold the batter a few more times.

Not Sifting Ingredients

It is very important that you sift your almond flour and powdered sugar together. Use a spoon to break up any clumps.

Discard any remaining almond flour that won't pass through the sieve (*it should be no more than a tablespoon*). This will ensure that the mixture is as fine as possible so that it won't be grainy.

5. Hollow Shells

Hollow shells are another one of the top issues with macarons. Here's what causes this common problem.

Over Whipped Meringue

Over-whipped meringue causes excess air. Make sure you stop beating the meringue as soon as it reaches stiff peaks.

Over or Under Mixed Batter

Improper macaronage can cause a whole range of problems, one of which being hollow shells. It all comes down to if there is too much or not enough air in the batter.

It is easier to spot under mixed batter because the macarons will have a pointy top. Over mixed batter will be too fluid.

Resting Too Long

As the macarons continue to rest, the meringue begins to lose its stability and the protein structure weakens.

If you live in an especially humid environment (*which takes longer for macarons to properly dry*), you might try out a no-rest macaron recipe instead.

Under Baked

When macarons are baking, they initially puff up and then settle back down as they continue to bake. If you pull them from the oven too soon, they will still be puffed up and the shells might be hollow.

Oven Temperature Too High or Too Low

If your macarons look absolutely perfect on the outside, it might be time to experiment with your oven temperature. Use an oven thermometer to make sure the temperature is accurate, and then start adjusting it by only 5°.

6. Shells with Air Bubbles



Not Tapping The Baking Sheet

After piping your shells, you need to firmly tap the baking sheet on the counter 5 times. This will cause the air bubbles to rise to the surface and pop.

Over Whipped Meringue

Over-whipped meringue has excess air. The extra air will form more air bubbles.

Not Popping the Bubbles

After tapping your baking sheet, I really recommend taking a pin or toothpick to pop any bubbles that you can still see.

Improper Macaronage

While folding your batter, try pressing it against the edge of your bowl with your spatula to help deflate the air. You are still looking for the correct consistency, though!



7. Ruffled Feet

Ruffled feet are when the feet look frilly and spread just slightly past the diameter of the shell. If your feet have spread out further, see the spread feet section.

Over Mixed Batter

It's really important to master your macaronage. The consistency should be similar to lava and will fall from your spatula in ribbons.

When making a figure 8 with the batter falling from the spatula, it should take about 10 seconds to sink back into itself. If it is quicker than this, you have overmixed it.

Over Whipped Meringue

All of the extra air in your meringue will cause your feet to grow extra tall and expand slightly. Stop beating the meringue once it has reached stiff peaks.

High Oven Temperature

An oven that is too hot will cause the feet to grow and expand. Use an oven thermometer or reduce the temperature in your oven.

8. Soft Shells

Under Whipped Meringue

If your meringue is under-whipped, it won't be strong enough to fully support the shells. Make sure you beat the meringue until it reaches stiff peaks.

Under Baked

Under-baked macarons will still be soft and gooey on the inside. Try baking them for slightly longer.



9. Speckled Shells

Oily Almond Flour or Cocoa

Almond flour and cocoa powder both have a higher fat content (*which does not agree with meringue*). If they are more oily than usual, you might need to try a new brand or pick up a new package.

Over Mixed Batter

Overmixed batter will be runny and contain extra moisture, which could cause speckled shells. Make sure you only mix your macaronage until it reaches the correct consistency.

Under Baked

If your macarons are underbaked, the gooey insides will start to show through the shell as they cool down. Try baking them for a few minutes longer.

10. Lopsided

Resting Too Long

If you let your macarons rest for too long, the protein structure begins to deflate. This can cause them to bake unevenly.

Uneven Heat

If your oven has hot spots, it could cause your macarons to bake unevenly. Try rotating your baking sheets halfway through baking.

Tall-Rimmed Baking Sheets

If the rims on your baking sheets are tall, this can prevent proper air circulation. To fix this issue, you can flip the baking sheet upside down and bake your macarons on the bottom.

11. Wrinkled Shells

Too Much Cocoa Powder

Cocoa powder has a higher fat content and absorbs moisture, which can throw off the balance in your macarons. Follow your recipe exactly, or try a new recipe.

Overheating The Egg Whites

Swiss and Italian meringues are made by heating water and sugar to create a sugar syrup before pouring it into your egg whites. It is important to use a candy thermometer to keep track of the temperature of the syrup.

Or, you can make French macarons that don't require cooking the meringue at all.

Oily Almond Flour

Excess moisture can cause wrinkly shells due to how the fat interacts with the meringue. Try to avoid using homemade almond flour and use some that is storebought.

Additionally, if you pulse your almond flour in a food processor, try skipping this step to see if it helps.

12. No Bottom



Low Oven Temperature

If your oven temperature is too low, the macarons aren't given the chance to fully develop and create the bottom of the shell. Try increasing your oven temperature slightly.

Using A Double Pan

Some people swear by using a double pan for macarons. I'm not saying this is wrong, but keep it in mind if you are having issues with your macarons not forming bottoms.

Under Baked

Bake your macarons until the shell no longer jiggles on its feet. You could also cut one in half and see if the center is still gooey.

Too Far From Heat Source

If your macarons don't have enough heat (*similar to an oven temperature that is too low*), they might not develop bottoms. I have found the middle rack works best in my oven, but you can experiment with baking your shells on different racks.

13. Misshapen



Over Mixed Batter

If your batter is overmixed, it will spread and move while baking rather than keeping the shape that it was piped.

Piping Technique

To pipe your macaron shells, hold your piping bag at a 90-degree angle about ¼-inch above the baking mat in the center of one of the template circles. Squeeze the bag until the batter fills the inner circle of the template.

Stop squeezing and quickly form a C shape with the tip to break off the batter. Then, move on to the next shell.

Not Using A Template

Of course, a template is not a requirement. However, they do help to guide you in making precise circles that are all the same size.

Warped Baking Sheet

If your baking sheet is warped, then it is time to replace it. This can happen slowly over time from being heated, cooled, and tapped on the counter.

14. Bottom Comes Off

Underbaked

If your macarons are underbaked, the bottoms will still be sticky. If this is the case, they will stick to the baking sheet and peel off when you try to move them.

Keep an eye on your macarons while baking them. You'll know they are done when you can gently nudge the top of them and they don't move on their feet.

Low Oven Temperature

Similarly to being underbaked, if your oven temperature is too low then your macarons will bake too slowly.

Not Letting Them Cool

When your macarons first come out of the oven, you need to let them cool on the baking sheet for 5-10 minutes before moving them. This cooling time helps them to release from the mat or parchment paper.

15. Browning Shells



High Oven Temperature

If your oven temperature is too high, your macarons will bake more quickly. Try reducing the temperature.

Over Baked

As with most things, overbaking will cause your macarons to brown. Typically, the bottoms will brown first before the tops. Try reducing your baking time by a couple of minutes.

Using A Dark Baking Sheet

As mentioned above, dark baking sheets retain more heat than silver ones. Since they are hotter, this will cause the bottom of your macarons to brown.

Switch to using silver baking sheets for best results.

16. No Feet

Low Oven Temperature

If your oven isn't hot enough, the steam from the macarons will escape slowly, which will prevent any feet from forming. Use an oven thermometer for the best result.

Too Far From Heat Source

Similarly to having a low oven temperature, if your macarons are too far from the heat source, they won't bake quickly enough, and feet won't form. Experiment with baking them on different racks in your oven.

Resting Too Long

If you let your shells dry for too long, the protein begins to deflate. Then, they won't form any feet in the oven. Make sure you bake them as soon as they are dry to the touch.

17. Spread Feet



Over Mixed Batter

If your batter is overmixed, making it too runny, the feet may spread out on the baking sheet before rising.

High Oven Temperature

If your oven temperature is too high, the steam will escape quickly from the bottom, causing the feet to spread. Try lowering your oven temperature.

Your macarons will continue to get better and better the more you practice!