

— AMERICA'S —
TEST KITCHEN

100 TECHNIQUES

Technique #99: Master Pate a Choux for Perfect Puffs

Used in sweet and savory recipes alike, cream puff dough is the most elemental of all French pastries and it's entirely possible to master it at home



By America's Test Kitchen

Published July 25, 2023.

This is Technique #99 from our 100 Techniques Every Home Cook Can Master.

Each technique is broken into three sections: why it works, key steps, and recipes that use it. Learn these recipe building blocks and you'll be set up for a lifetime of cooking success.

The ever popular pate a choux is used in all kinds of recipes, from ice cream-filled profiteroles to pastry cream-stuffed éclairs to crispy, cheesy gougères.

Pate a choux should bake into light, airy, well-puffed pastry with a delicately crisp crust. The inside should be mostly hollow, with a soft, custardy webbing lining the interior walls.

But there are plenty of potential pitfalls. If the dough is too soft, it will not spread correctly on the baking sheet and may not rise properly. It can also bake up lopsided or collapse after baking.

The most common problem, however, is that the puffs can turn soggy as they cool, ending up with the texture of damp cardboard.

The Traditional Technique

The classic method for making the pastry involves cooking butter, water or milk, and flour in a saucepan until the loose batter turns into a stiff, pipeable dough. The dough is stirred using a smearing method to help develop its gluten.

Eggs are beaten in, one at a time, for structure and flavor. Cheese is added if making gougères. Then the paste is piped onto a baking sheet and baked.

Our Streamlined Process Makes Better Pastries

We discovered that the cooked dough can be transferred from saucepan to food processor and the eggs incorporated all at once, with great speed and nary a turn of a wooden spoon.

This machine method not only is quicker and easier than its traditional counterpart but also produces pastry superior to that beaten by hand—our puffs are lighter, puffier, and rise better because the vigorous beating causes the egg proteins to unwind and “relax.”

Adding an extra egg white to the dough creates even more structure. Using both milk and water in the batter helps the puffs turn golden (thanks to the milk) and crisp up (thanks to the water turning to steam).

Pate a Choux Needs Distance and a Hot Start

Proper baking is also essential to success.

An inch of space between piped mounds of pate a choux helps prevent collapse. Since the puffs are leavened by the steam pushing out from the interiors, they require a blast of high heat to get going before lowering the heat to finish cooking them all the way through.

Letting them dry out a bit in a turned-off oven helps them crisp further without overbaking.

With proper distance, pate a choux pastries such as gougères bake up perfectly.

Step by Step: How to Make Perfect Pate a Choux

Now that you know the "why" behind the process, follow these key steps next time you're making any kind of pate a choux.

Step 1: Cook Dough on Stove



Cook dough over low heat, stirring constantly using smearing motion, until mixture has wet-sand appearance (for profiteroles) or forms ball that pulls away from pan (for gougères).

Step 2: Process Dough Briefly



Using food processor, process dough briefly to cool slightly. Add eggs in steady stream, processing to smooth, sticky paste.

Step 3A: Pipe Puffs



For piped puffs, fold down top of pastry bag to form cuff and fill bag with dough. Unfold cuff, lay bag on counter, and, using hands or bench scraper, push dough into lower portion of bag. Twist top of bag and pipe paste into 1½-inch mounds on baking sheet.

Step 3B: Spoon Puffs



For spooned puffs, scoop 1 level tablespoon of dough and, using second spoon, scrape dough onto sheet into 1½-inch mounds.

Step 4: Smooth Dough



Use back of teaspoon dipped in water to smooth pastry mounds.

Step 5: Stuff (optional)



If stuffing your puffs, cut slit into side of each baked puff to release steam. Return puffs to turned-off oven to dry.

Recipes That Use This Technique

Want to put this skill into practice? Make pate a choux for these recipes.

Ready to learn another technique? Choose from our list of 100 Techniques Every Home Cook Can Master.