AMERICA'S TEST KITCHEN

Foolproof New York Cheesecake

From *America's Test Kitchen* Season 16: New York Natives

WHY THIS RECIPE WORKS:
The classic New York Cheesecake owes its distinctive browned top and velvety texture to a risky baking technique. It spends 10 minutes in a 500-degree oven, after which the oven is turned down to 200 degrees for the remainder of the baking time. Success with this method is dependent on the oven temperature falling at a very specific rate: too fast and your cheesecake will be soupy; too slow and it will be burned, cracked, and grainy.
For success every time, we turned the conventional method on its head: We baked the cheesecake for about 3 hours at the lower temperature and then removed it from the oven while we heated the oven to 500 degrees. Finishing the cake at the higher temperature produced the proper appearance and texture, without the risk. A hybrid graham cracker/shortbread crust gave our cheesecake the classic flavor and the structure to withstand prolonged contact with the wet filling without turning soggy, for a perfect cheesecake every time.

Serves 12 to 16

This cheesecake takes at least 12 hours to make (including chilling), so we recommend making it the day before serving. An accurate oven thermometer and instant-read thermometer are essential. To ensure proper baking, check that the oven thermometer is holding steady at 200 degrees and refrain from frequently taking the temperature of the cheesecake (unless it is within a few degrees of 165, allow 20 minutes between checking). Keep a close eye on the cheesecake in step 5 to prevent overbrowning.

INGREDIENTS

Crust

- **6** whole graham crackers, broken into pieces
- **1/3** cup packed (2 1/3 ounces) dark brown sugar
- **1/2** cup (2 1/2 ounces) all-purpose flour
- **1/4** teaspoon salt
- **7** tablespoons unsalted butter, melted

Filling

- **2 1/2** pounds cream cheese, softened
- **1 1/2** cups (10 1/2 ounces) granulated sugar
- **1/8** teaspoon salt
- **1/3** cup sour cream
- **2** teaspoons lemon juice
- **2** teaspoons vanilla extract
- **6** large eggs plus 2 large egg yolks

INSTRUCTIONS

1. FOR THE CRUST: Adjust oven racks to upper-middle and lower-middle positions and heat oven to 325 degrees. Process cracker pieces and sugar in food processor until finely ground, about 30 seconds. Add flour and salt and pulse to combine, 2 pulses. Add 6 tablespoons melted butter and pulse until crumbs are evenly moistened, about 10 pulses. Brush bottom of 9-inch springform pan with 1/2 tablespoon melted butter. Using your hands, press crumb mixture evenly into pan bottom. Using flat bottom of measuring cup or ramekin, firmly pack crust into pan. Bake on lower-middle rack until fragrant and beginning to brown around edges, about 13 minutes. Transfer to rimmed baking sheet and set aside to cool completely. Reduce oven temperature to 200 degrees.

2. FOR THE FILLING: Using stand mixer fitted with paddle, beat cream cheese, 3/4 cup sugar, and salt at medium-low speed until combined, about 1 minute. Beat in remaining 3/4 cup sugar until combined, about 1 minute. Scrape beater and bowl well; add sour cream, lemon juice, and vanilla and beat at low speed until combined, about 1 minute. Add egg yolks and beat at medium-low speed until thoroughly combined, about 1 minute. Scrape bowl and beater. Add whole eggs two at a time, beating until thoroughly combined, about 30 seconds after each addition. Pour filling through fine-mesh strainer set in large bowl, pressing against strainer with rubber spatula or back of ladle to help filling pass through strainer.

3. Brush sides of springform pan with remaining 1/2 tablespoon melted butter. Pour filling into crust and set aside for 10 minutes to allow air bubbles to rise to top. Gently draw tines of fork across surface of cake to pop air bubbles that have risen to surface.

4. When oven thermometer reads 200 degrees, bake cheesecake on lower rack for 45 minutes. After 45 minutes, remove cake from oven and use toothpick to pierce any bubbles that have risen to surface. Return to oven and continue to bake until center registers 165 degrees, 2 1/4 to 2 3/4 hours longer. Remove cake from oven and increase oven temperature to 500 degrees.

5. When oven is at 500 degrees, bake cheesecake on upper rack until top is evenly browned, 4 to 12 minutes. Let cool for 5 minutes; run paring knife between cheesecake and side of springform pan. Let cheesecake cool until barely warm, 2 1/2 to 3 hours. Wrap tightly in plastic wrap and refrigerate until cold and firmly set, at least 6 hours. (Leftovers can be refrigerated for up to 4 days.)

6. To unmold cheesecake, remove sides of pan. Slide thin metal spatula between crust and pan bottom to loosen, then slide cheesecake onto serving plate. Let cheesecake stand at room temperature for about 30 minutes. To slice, dip sharp knife in very hot water and wipe dry between cuts. Serve.

TECHNIQUE

FOUR FAMILIAR FAILURES

A nut-brown surface, puffed-up rim, velvety interior, and buttery graham cracker crust are classic New York cheesecake traits. Unfortunately, so are these common pitfalls.

CRACKED: When exposed to high heat for too long, the cheesecake will overbake and develop unsightly fissures.

BURNT: Too much high heat can also cause the cheesecake to burn.

SPOTTY: Air bubbles that rise to the batter's surface during baking brown faster, giving the facade an undesirably mottled appearance.

SOUPY: Even when the exterior is nicely set, the interior can be underdone and runny at the core.

TECHNIQUE

PROBLEM SOLVING: A CRUST THAT WON'T SOG OUT

A typical graham cracker crust turns soggy because the structure of the crushed-up crackers is loose and porous. As a result, moisture from the heavy, wet cream cheese filling seeps into the crevices and saturates the crumbs before the water has a chance to evaporate during baking.

The key to a more moisture-resistant crust was to "waterproof " the crumbs, which we did by working them into a pastry dough. Because the structure of pastry dough is much less porous than a crumb crust—picture a sheet of rock versus the absorbent "sand" of a crumb crust—water from the filling never soaks into it and simply evaporates in the oven. Furthermore, our pastry dough contains a high ratio of butter, which coats both the crumbs and the starch granules in the flour, making the dough even more resistant to soaking up water.

WATERPROOF CRUST: Graham cracker crumbs don't get soggy when worked into a moisture-resistant pastry dough.

TECHNIQUE

BAKER BEWARE: OVENS COOL DOWN AT DIFFERENT RATES

The textural and visual contrast that defines a New York cheesecake is typically produced by a high-to-low oven method: an initial blast of heat that puffs the sides and browns the top before the temperature is turned way down for the duration of baking to ensure just the right velvety interior. But baking cheesecakes in a variety of test kitchen ovens made us realize that this method works only in ovens that lose heat at a particular rate. If the oven is more thoroughly insulated and the temperature falls too slowly, the cheesecake will overcook; if the oven is less well insulated and the temperature falls too quickly, the beautifully browned exterior of the cheesecake is likely to hide a soupy, raw interior.

We confirmed this theory after monitoring the time it took three different ovens in the test kitchen to fall from 500 to 200 degrees. The results were all over the map. Even more compelling was that in the slowest oven, the temperature took almost 2 hours to reach 200 degrees—45 minutes longer than the recommended baking time for our previous recipe for New York–Style Cheesecake.

THE SOLUTION: To eliminate the drop in oven temperature as a variable, we took the bold step of reversing the typical high-to-low method. We baked the cake in a 200-degree oven until it was completely set, removed it, and then cranked the heat to 500 degrees. Once the oven came up to temperature, we placed the cake on the upper rack, where in just 10 minutes the top browned and the edges puffed, creating that characteristic slope from edge to center.