

PRINCIPLES OF PASTRY PIES & TARTS



What is a pastry?

A pastry is a mixture of flour, fat, cold water and salt.



When properly mixed,
the pastry forms flaky layers as it bakes.

Pies vs. Tarts

- Pies are composed of sweet or savory fillings in baked crusts.
- Pies are generally made in *round, slope-sided pans*.
- Tarts are similar except they are made in *shallow, straight-sided pans*.
- Tarts can be almost any shape and often have glazed fruits, piped cream or chocolate decorations.

Dough for Crusts

- Type of fat affects dough flavor and flakiness
- Flaky pie dough is made by cutting fat into large, irregular pieces
- Mealy pie dough is made by cutting fat into, fine, uniform pieces
- Crumb crust is made from crushed cookie or other crumbs and butter, used for cheesecakes or custard pies

Types of Pie and Tart Doughs

Table 11.1 CLASSIFICATION OF PIE AND TART DOUGHS

DOUGH	FRENCH NAME	CHARACTERISTICS AFTER BAKING	USE
Flaky dough	Pâte brisée	Very flaky; not sweet	Prebaked pie shells; pie top crusts
Mealy dough	Pâte brisée	Moderately flaky; not sweet	Custard, cream or fruit pie crusts; quiche crusts
Sweet tart dough	Pâte sucrée	Very rich; crisp; not flaky	Tart and tartlet shells
Shortbread tart dough	Pâte sablée	Very rich; fragile; not flaky	Tart and tartlet shells; cookies

PASTRY INGREDIENTS

1. FLOUR

- Gives structure
- Too much: Tough pastry
- Too little: Gluten will not develop



PASTRY INGREDIENTS

2. Water:

- Provides moisture by producing steam
- Too much: Tough pastry
- Too little: Crumbly & difficult to roll



Friendly Review

- What is the protein formed when you mix flour and liquid?

GLUTEN

Particularly important with pastries

- Overmixed- Tough pastry

PASTRY INGREDIENTS

3. Salt:

- Flavor



PASTRY INGREDIENTS

- Fat:
 - Makes pastry tender by preventing gluten from over-developing
 - Too much: Tough pastry
 - Too little: Crumbly



PROPER FATS FOR PASTRY

SHORTENING

- Flaky crust w/little flavor



BUTTER

- Contributes a delicious flavor
- Does not produce as flaky of a crust
- Low melting point makes it difficult to work with



CAN DO A COMBINATION OF THE TWO

FATS FOR PASTRY

LARD

- Flakiest crust, however flavor is not suitable for fruit pies



OIL

- Crust becomes extremely fragile, without flakiness



Shaping Crusts

- Crusts are shaped by rolling out the dough to fit into a pie pan or tart shell or to sit on top of fillings
- Work on a clean flat surface lightly dusted with flour
 - Too much flour makes the crust dry and crumbly.
- Roll out the well-chilled dough from the center
- Crusts can be filled and then baked or baked unfilled (*baked blind*) and then filled

PASTRY TERMINOLOGY

- **BLIND CRUST**
 - Baking a pie crust without a filling
 - * Dock: Must prick the bottom of the pie crust with a fork to prevent blistering during baking or use dry beans or pastry beads to weigh down the pastry



PASTRY TERMINOLOGY

- **Fluting:**
 - Decorative edge given to pastries



Fluted Edges

Fork



Pinched



Fluted Edges

Rope



Braided



Fluted Edges

Lattice topping



Cut out



Tips for Handling the Dough

- Too much handling = Tough pastry
 - Causes gluten to overdevelop
- Handle gently at all times and as little as possible

- DO NOT:
 - Overmix the dough when adding liquid
 - Use the rolling pin vigorously
 - Stretch the pastry into the pie plate

Four Categories of Pie Fillings

Fillings make pies and tarts distinctive and flavorful

1) Cream

2) Fruits

3) Custard

4) Chiffon

Four Categories of Pie Fillings

Cream: Use a cornstarch-thickened pudding mixture to make a cream filling, often have meringue topping



Four Categories of Pie Fillings

Fruit

- Cooked Fruit
- Cooked Juice
- Baked Fruit



Four Categories of Pie Fillings

Custard:

Filled with custard made from milk, eggs, and sugar (may contain other ingredients)



Four Categories of Pie Fillings

Chiffon

- Light and airy, filled with a mixture containing gelatin and cooked beaten egg whites
- Some also contain whipped cream



Assembling Tarts and Storing Pies and Tarts

- Assembling tarts consists of three steps:
 - Line shell with prepared sweet dough. Bake blind and cool completely
 - Prepare pastry cream, curd or other filling. Pour filling into prepared crust
 - Refrigerate or freeze filled tart shells until filling is set.
- Tarts can be coated with a shiny topping called *glaze*; it adds eye appeal and protects fresh fruit from browning
- Pies and tarts filled with cream or custard must be refrigerated to slow bacterial growth

Assembling Pies

Table 11.2 **SUGGESTIONS FOR ASSEMBLING PIES**

FILLING	CRUST	TOPPING	GARNISH
Vanilla or lemon cream	Prebaked flaky dough or crumb	None, meringue or whipped cream	Crumbs from the crust
Chocolate cream	Prebaked flaky dough or crumb	None, meringue or whipped cream	Crumbs from the crust or shaved chocolate
Banana cream	Prebaked flaky dough	Meringue or whipped cream	Dried banana chips
Coconut cream	Prebaked flaky dough	Meringue or whipped cream	Shredded coconut
Fresh fruit	Unbaked mealy dough, or sweet dough if shallow tart	Lattice, full crust or streusel	Sanding sugar or cut-out designs if lattice or top crust is used
Canned or frozen fruit	Unbaked mealy dough	Lattice, full crust or streusel	Sanding sugar or cut-out designs if lattice or top crust is used
Chiffon or mousse	Crumb or prebaked sweetened flaky dough	None or whipped cream	Crumbs, fruit or shaved chocolate
Custard	Unbaked mealy dough	None	Whipped cream, cinnamon
Vanilla pastry cream	Prebaked sweet dough	Fresh fruit	Glaze
Lemon or citrus curd	Prebaked sweet dough	Fresh fruit, berries	Glaze, Italian meringue

Convenience Products

- Preformed pie and tart shells are available in a range of sizes and styles, both raw and prebaked
- Prepared pie fillings are also available in a variety of fruit and custard flavors, offering convenience, consistency and the ability to serve fruits out of season
- Shelf life of these fillings tends to be extremely long, often without the need for refrigeration

CHARACTERISTICS OF HIGH QUALITY PASTRIES

- Tender
- Flaky
 - Layers of gluten will separate layers of fat and expanded by steam
- Lightly and evenly browned
- Pleasing flavor



Troubleshooting for Pies

Table 11.3 TROUBLESHOOTING CHART FOR PIES

PROBLEM	CAUSE	SOLUTION
Crust shrinks	Overmixing	Adjust mixing technique
	Overworking dough	Adjust rolling technique
	Not enough fat	Adjust formula
	Dough was stretched or rolled incorrectly	Improve technique
Soggy crust	Wrong dough used	Use mealier dough
	Oven temperature too low	Adjust oven
	Not baked long enough	Adjust baking time
	Filling too moist	Adjust formula
Crumbly crust	Not enough liquid	Adjust formula
	Not enough fat	Adjust formula
	Improper mixing	Adjust mixing technique
Tough crust	Not enough fat	Adjust formula
	Overmixing	Adjust mixing technique
Runny filling	Insufficient starch	Adjust formula
	Starch insufficiently cooked	Cook longer
Lumpy cream filling	Starch not incorporated properly	Blend starch with sugar before adding liquid; stir filling while cooking
	Filling overcooked	Adjust cooking time
Custard filling “weeps” or separates	Too many eggs	Reduce egg content or add starch to the filling
	Eggs overcooked	Reduce oven temperature or baking time