

Prep Time	15 minutes
Cook Time	15 minutes
Total Time	30 minutes
Recipe Intensity Level	Easy to Intermediate (Requires basic stovetop sauce management)
Air Fryer Temperature	350°F (175°C)
Yield	4 main servings or 6 side-dish portions
Optimal Pan Size	7-inch or 8-inch cake pan / silicone air fryer insert

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Equipment Needed

- Air Fryer: 4-quart capacity or larger (basket or oven style).

- **Baking Dish:** 7×7 inch metal baking pan, 7-inch round cake pan, or air-fryer-safe silicone cake barrel that fits inside your basket with at least 0.5 inches of clearance for airflow.
- **Medium Saucepan & Whisk:** For cooking the elbow macaroni and crafting the cheese sauce.
- **Cheese Grater:** Freshly shredded cheese is essential for smooth melting without graininess.

Ingredients

For the Macaroni & Cheese Base

- **8 oz (225g) Elbow Macaroni:** Boiled in salted water for 2 minutes *less* than package directions (al dente).
- **2 tbsp (28g) Unsalted Butter:** For the base roux.
- **2 tbsp (16g) All-Purpose Flour:** To thicken the sauce.
- **1 ½ cups (360ml) Whole Milk:** Warmed slightly to blend smoothly.
- **½ cup (120ml) Heavy Cream:** Adds rich texture and stops the cheese from breaking under high heat.

- 1 ½ cups (170g) Sharp Yellow Cheddar Cheese: Freshly shredded.
- 1 cup (115g) Gruyère or Fontina Cheese: Freshly shredded for superior meltability.
- ½ tsp Garlic Powder
- ½ tsp Onion Powder
- ¼ tsp Smoked Paprika
- ¼ tsp Ground White or Black Pepper
- ½ tsp Kosher Salt (adjust to taste)
- ½ tsp Dijon Mustard: Secret ingredient that cuts through rich fats and enhances cheesy flavor.

For the Crispy Air Fryer Topping

- ½ cup (30g) Japanese Panko Breadcrumbs
- ½ cup (55g) Sharp Cheddar Cheese: Freshly shredded.
- 1 tbsp (14g) Unsalted Butter: Melted.

- 1 tbsp Fresh Parsley: Finely chopped (for garnish).

Step-by-Step Cooking Instructions

Step 1: Par-Boil the Pasta

1. Bring a large pot of heavily salted water to a rolling boil over high heat.
2. Add 8 oz of elbow macaroni. Cook for approximately 5 to 6 minutes—about 2 minutes shorter than the package instructions. The pasta should still have a firm bite in the center, as it will continue cooking inside the air fryer.
3. Drain the pasta thoroughly and set aside. *Tip: Toss with a drops of olive oil to prevent sticking.*

Step 2: Build the Silky Cheese Sauce

1. Place a medium saucepan over medium heat (Intensity: Medium). Melt 2 tablespoons of butter.
2. Sprinkle in 2 tablespoons of all-purpose flour. Whisk continuously for 1 to 2 minutes until the mixture turns lightly golden and smells nutty. This cooks out the raw flour taste.
3. Slowly pour in the warm whole milk and heavy cream in a steady stream while whisking vigorously to eliminate lumps.

4. Bring the mixture to a gentle simmer (Intensity: Medium-Low). Whisk frequently for 3 to 4 minutes until the sauce thickens enough to coat the back of a spoon.
5. Turn off the heat entirely. Stir in the Dijon mustard, garlic powder, onion powder, smoked paprika, salt, and black pepper.
6. Add 1 ½ cups of shredded sharp cheddar and 1 cup of shredded Gruyère in three small batches. Stir gently after each addition until the cheese is completely melted and glossy.

Step 3: Combine and Transfer

1. Fold the drained elbow macaroni directly into the warm cheese sauce until every noodle is evenly coated.
2. Lightly grease your air-fryer-safe baking dish with butter or non-stick cooking spray.
3. Pour the cheesy macaroni mixture into the prepared baking dish, spreading it out evenly with a spatula.

Step 4: Mix the Air Fryer Topping

1. In a small bowl, combine the Panko breadcrumbs, remaining ½ cup of shredded cheddar cheese, and 1 tablespoon of melted butter. Mix with a fork until the crumbs are coated in butter.

2. Sprinkle the topping mixture evenly over the top of the macaroni.

Step 5: Air Fry to Golden Perfection

1. Preheat your air fryer to 350°F (175°C) for 3 minutes.
2. Carefully place the filled baking pan directly into the air fryer basket or onto the middle rack.
3. Air fry at 350°F (175°C) (Intensity: Medium-High Circulation) for 8 to 10 minutes.
4. Check at the 8-minute mark. The top should be deep golden brown, and the cheese sauce should be bubbling around the edges. *If the top browns too quickly before bubbling, lower the air fryer temperature to 320°F (160°C) for the last 2 minutes.*

Step 6: Rest and Serve

1. Using heat-resistant oven mitts or silicon tongs, carefully remove the baking pan from the air fryer.
2. Let the macaroni and cheese rest for 3 to 5 minutes before serving. This allows the creamy cheese sauce to thicken slightly so it clings to the pasta when scooped.
3. Garnish with chopped fresh parsley and serve hot!

Pro Tips for Air Fryer Success

- **Avoid Pre-Shredded Cheese:** Pre-packaged shredded cheeses are coated in anti-caking agents like cellulose, which prevents them from melting smoothly. Grating blocks of cheese yourself guarantees a silky sauce.
- **Preventing Dry Mac & Cheese:** Air fryers operate via rapid convection airflow, which dehydrates surfaces quickly. Adding heavy cream alongside whole milk creates an emulsion that remains creamy under high convection heat.
- **Pan Clearance:** Always verify that your pan leaves at least a half-inch margin around the edges of the air fryer basket so hot air circulates properly beneath and around the dish.

Storage, Reheating & Shelf Life

- **Refrigeration:** Store cooled leftovers in an airtight container in the refrigerator for up to 4 days.
- **Freezing:** You can freeze cooked air fryer mac and cheese in a freezer-safe container for up to 2 months. Thaw overnight in the refrigerator before reheating.
- **Reheating in the Air Fryer:** Place individual portions in an air-fryer-safe dish, splash 1 tablespoon of milk over the top to restore moisture, cover loosely with foil, and air fry at 320°F (160°C) for 5 to 7 minutes until warmed through. Remove foil for the last 60 seconds to crisp up the topping again.

Estimated Nutritional Information

Values are calculated per serving based on 4 main-course portions.

Nutrient	Amount Per Serving	% Daily Value*
Calories	585 kcal	—
Total Fat	35g	45%
Saturated Fat	21g	105%
Trans Fat	0.9g	—
Cholesterol	105mg	35%
Sodium	680mg	30%
Total Carbohydrate	44g	16%
Dietary Fiber	2g	7%
Sugars	5g	—
Protein	24g	48%
Calcium	520mg	40%
Iron	1.8mg	10%
Potassium	240mg	5%