

Sous Vide Fish

The Rosendale Method

A Modern Culinary Approach to Precision-Cooked Seafood

By Chef Rich Rosendale, CMC

Rosendale Collective

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Includes time & temperature charts, chef's notes, and professional techniques

As taught in the Rosendale Culinary Training Series

Master fish with the same techniques used by Michelin-caliber kitchens



Welcome to Sous Vide Fish: The Rosendale Method

This guide is designed to help chefs and culinary professionals master the art of sous vide fish. You'll learn Chef Rich Rosendale's refined approach to texture, safety, and flavor development — from the importance of pre-treatment to precise time and temperature control.

Whether you're new to sous vide or optimizing high-end execution, this guide focuses on techniques you can apply across species with consistency and confidence.

This is not a fish encyclopedia. It's a focused system for reliably exceptional results, built on years of professional experience.



What You'll Learn

- Why fish requires special care when cooked sous vide
- Pre-treatment methods to improve texture and clarity
- Safe handling and temperature ranges for seafood
- Category-based time and temp targets
- Simple rules for sealing and bagging
- Techniques for finishing and serving
- Signature recipes from Chef Rosendale

This guide emphasizes principles you can apply across many species — not just step-by-step instructions for individual fish.



The Rosendale Rules for Cooking Fish Sous Vide



Always Pre-Treat the Fish

Use either a saline solution or a flash cure to purge excess moisture and firm the texture.



Control Vacuum Pressure

Use gentle vacuum settings (90–94%) or the water displacement method to avoid damaging delicate fish.



Cook by Texture, Not Species

Focus on temperature and thickness — not fish names. This keeps results consistent across categories.



Quick, Controlled Finishing

A torch, hot pan, or quick grill after cooking develops surface flavor without overcooking the interior.



Always Rest Fish After Cooking

Let the fish rest briefly after sous vide cooking to allow juices to redistribute and temperature to equalize.



Water Displacement Method

For extremely delicate fish, use Ziploc-style bags with water displacement to prevent crushing or deformation.

Food Safety Principles



Avoid the Danger Zone

Bacteria thrive between **40°F and 140°F (4°C–60°C)**. Keep fish out of this range.



Start with Quality Fish

Use sushi-grade or flash-frozen fish for rare or lightly cooked preparations to avoid parasites.



Pasteurize When Holding

If holding fish, cook to **130°F (54°C)** or higher for pasteurization.



Rapid Chilling Protocol

Rapidly chill to below **40°F (4°C)** within 2 hours using an ice bath or blast chiller.



Label & Date Bags

Apply FIFO principles for proper cold storage, especially in professional kitchens.



Portion Before Cooking

Portion fish before cooking to minimize post-cook handling, contamination, and maintain integrity.



Gently Seal Fish

Gently seal fish (e.g., Ziploc bags, water displacement) to preserve texture. Strong vacuum sealing can damage delicate fish.



Special Considerations

Fish under **130°F (54°C)** is not pasteurized and should not be served to vulnerable individuals.

Pre-Treating Fish: Two Proven Techniques for Better Texture and Purity

Before cooking any fish sous vide, it's essential to remove excess surface moisture. Without this step, delicate fillets can become waterlogged, resulting in diluted flavor, mushy texture, and cloudy juices inside the vacuum bag.

To prevent this, the Rosendale Method uses two fast, effective pre-treatments—also known as **wet and dry cures**—to enhance purity, improve texture, and maintain clean flavor: **Saline Solution Purge** and **Flash Cure**.

Use a **saline purge** (wet cure) with a 10% salt solution, ice, and water to gently firm delicate fish while preserving subtle flavor. Opt for a **flash cure** (dry cure) by lightly salting the flesh side only to tighten texture and boost flavor. You may optionally add up to 50% sugar by weight when dry curing, but avoid sugar on the skin side to prevent over-browning when searing.

Note: If sealing multiple fish portions in the same bag, a small amount of olive oil or butter helps prevent sticking and improves even cooking.

Note: All ratios listed are by weight (not volume) for precision and repeatability.



Essential Pre-Treatments for Fish

1

Saline Solution Purge

(Recommended for delicate, flaky, or high-fat fish)

This method gently draws out surface moisture, slightly seasons the flesh, and firms the texture — all while preserving the purity of the fish's natural flavor.

Saline Solution Formula (by weight):

- 60% Water
- 30% Ice
- 10% Salt

Example: For 1000g total solution → 600g water, 300g ice, 100g salt

Procedure:

1. Dissolve the salt into the cold water.
2. Add the ice to bring down the temperature immediately.
3. Submerge fish portions completely for exactly 10 minutes.
4. Remove and pat completely dry.

Ideal for: salmon, trout, char, halibut, cod, and other flaky specie

2

Flash Cure

(Recommended for firm, fatty, or meaty fish)

A flash cure enhances surface flavor, firms the exterior, and creates a gentle seasoning crust — all while allowing for deeper infusion of aromatics and fat-soluble flavors.

Flash Cure Formula (by weight):

- 2% Kosher Salt
- Optional: 0.5–1% Sugar, Zest, or Ground Spices
- Light brush of neutral oil or infused fat

Procedure:

1. Combine cure mixture in a small bowl.
2. Lightly coat fish portions on both sides.
3. Let sit uncovered in the refrigerator for 10–15 minutes.
4. Rinse off excess and pat completely dry.

Ideal for: mackerel, salmon, tuna, black cod, and other robust, oily species.



Key Temperatures & What They Deliver

104°F / 40°C	Barely set, very delicate	Crudo-like, sashimi texture
122°F / 50°C	Tender, moist, silky	Signature Rosendale salmon
130°F / 54°C	Traditional flake, still juicy	Swordfish, halibut, cold holding
140°F / 60°C	Well-done, very firm, flaky	Flaked fish for salads, or for those who prefer a firm texture

Use judgment for time based on thickness and fish category

Disclaimer: Consuming raw or undercooked seafood may increase your risk of foodborne illness, especially if you have certain medical conditions or are part of a vulnerable population (e.g., elderly, pregnant women, young children, or individuals with weakened immune systems).

Fish Cooking Guide by Texture Goal

All times assume pre-portioned filets ¾" to 1" thick, pre-treated with saline or flash cure.

Texture Goal	Target Temp	Suggested Time	Chef's Notes
Tender (Barely Set)	104°F / 40°C	~30 min	Silky, delicate texture; ideal for sashimi-grade cuts.
Tender + Flaky	122°F / 50°C	~30 min	Balanced texture; great for most white fish or salmon.
Well Done	140°F / 60°C	~30-40 min	Very firm, flaky; good for flaked fish for salads.

Adjust time +5–10 minutes for pieces thicker than 1 inch. For thinner cuts, subtract ~5 minutes. Note: For pieces thicker than 1.5", extended time may be needed, but avoid exceeding 1 hour for most species to prevent texture degradation.

Finishing Touches and Philosophy

Finishing Touches: When and How to Sear Once sous vide cooking is complete, you can serve the fish immediately for a delicate texture — or finish it with a final burst of high heat to develop contrast and visual appeal.



Torch

Utilize a Searzall or culinary torch for precise control over the browning and crust development.



Grill

Briefly place the fish on a hot grill to impart smoky flavor and appealing char marks.



Sear

Achieve a perfect crust by searing in a hot cast iron pan or plancha for 30–60 seconds.

Always pat the fish dry before searing to prevent steaming and ensure proper browning. The goal is not to recook the fish, but to enhance the crust and elevate the flavor.

Additionally, allow the fish to rest for 5–10 minutes before serving to redistribute juices and ensure optimal tenderness.

Herb-Infused Swordfish

Yield: 2 servings

Ingredients:

- 2 swordfish steaks
- 2 sprigs fresh thyme (chopped)
- 2 cloves garlic (minced)
- 4 tbsp olive oil
- .5 lemon, zest
- Salt and freshly ground black pepper to taste

Instructions:

1. **Flash cure** the fish for 10 minutes with kosher salt (2% of fish weight). Rinse and pat dry thoroughly before bagging.
2. **Preheat** water bath to **130°F (54.4°C)**.
3. **Mix Herb Oil:** Combine garlic, thyme, lemon zest, and olive oil.
4. **Bag** each steak with 1 tbsp herb oil in a vacuum or zip-top bag. Seal gently.
5. **Sous Vide:** Cook for **30 minutes**. (Add 5–10 min for thicker cuts.)
6. **Sear:** Pat dry, then grill or sear presentation side only in a hot, lightly oiled pan for up to 1 minute.
7. **Finish:** Squeeze fresh lemon juice over the top. Serve immediately.

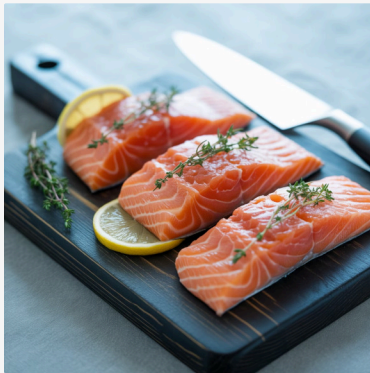


Smoked Sous Vide Salmon

Yield: 2 servings

Ingredients:

- 2 skin-on salmon portions (6 oz each)
- Kosher salt (for flash cure)
- 2 sprigs fresh thyme
- Lemon peel (from ¼ lemon)
- 1 tbsp olive oil
- Optional: freshly cracked black pepper



Instructions:

- Flash Cure:**
Coat entire surface with kosher salt.
Let stand **10 minutes**, rinse, and **pat dry**.
- **Bag & Smoke:**
Place one portion per bag with 1 thyme sprig, lemon peel, and ½ **tbsp olive oil**.
Fill bag with hickory smoke using a **smoking gun**, rest **10 minutes**, then seal.
- **Cook:**
Sous vide at **122°F / 50°C for 40 minutes**.
(Add time if cooking from frozen.)
- **Finish:**
Remove, pat skin dry, and **sear skin side only** in a hot, lightly oiled pan until crisp.
- **Serve:**
Plate skin-side up and serve immediately.



Turbot with Glaze & Aromatic Brunoise

Yield: 2 servings

Ingredients:

Fish & Glaze:

- 2 turbot fillets
- Kosher salt (for flash cure)
- Black pepper
- A small amount of butter (for bagging)
- ¼ cup light fish stock or fumet
- 2 tbsp crème fraîche

Optional:

- Herb fish mousse (used to bind fillets into roulade)

Garnish:

- Brunoise of saffron-poached potato, celery, ham, and black truffle

Instructions:

1. Flash Cure:

Lightly salt the turbot fillets on all sides. Let rest for **10 minutes**, then rinse and pat dry.

2. Prepare Roulade with Mousse:

Spread a thin layer of **herb fish mousse** between the two fillets. Roll tightly in plastic wrap to form a roulade, then vacuum seal with a small pat of butter.

3. Sous Vide Cook:

Cook the roulade in a **147°F / 64°C** water bath **until the internal temperature reaches 118°F / 48°C**.

(Use a needle probe if precision is needed.)

4. Make the Glaze:

Reduce fish stock and crème fraîche together in a small pan until smooth and velvety. Brush over the fish once cooked.

5. Finish & Serve:

Slice the roulade as desired and garnish with **brunoise of saffron-poached potato, celery, ham, and truffle**.
Serve immediately.



Sturgeon with Brine & Caviar

Yield: 2 servings

Ingredients:

Brine:

- 4 cups water
- ¼ cup kosher salt
- 1 tbsp sugar

Fish:

- 2 sturgeon fillets
- Small amount of olive oil
- 2 sprigs fresh thyme

Garnish:

- Stewed cucumber noodles (butter, white wine, fresh dill)
- Sterling caviar (quenelle per fillet)

Instructions:

1. Make Brine:

Boil water, salt, and sugar until dissolved. Cool to $\leq 40^{\circ}\text{F}$ / 4°C .

2. Brine Fish:

Submerge sturgeon in cold brine for 10 minutes. Rinse and pat dry.

3. Bag:

Place each fillet in a vacuum bag with thyme and olive oil. Seal gently.

4. Sous Vide Cook:

Cook at 135°F / 57°C for 15 minutes. Remove and drain.

5. Torch & Finish:

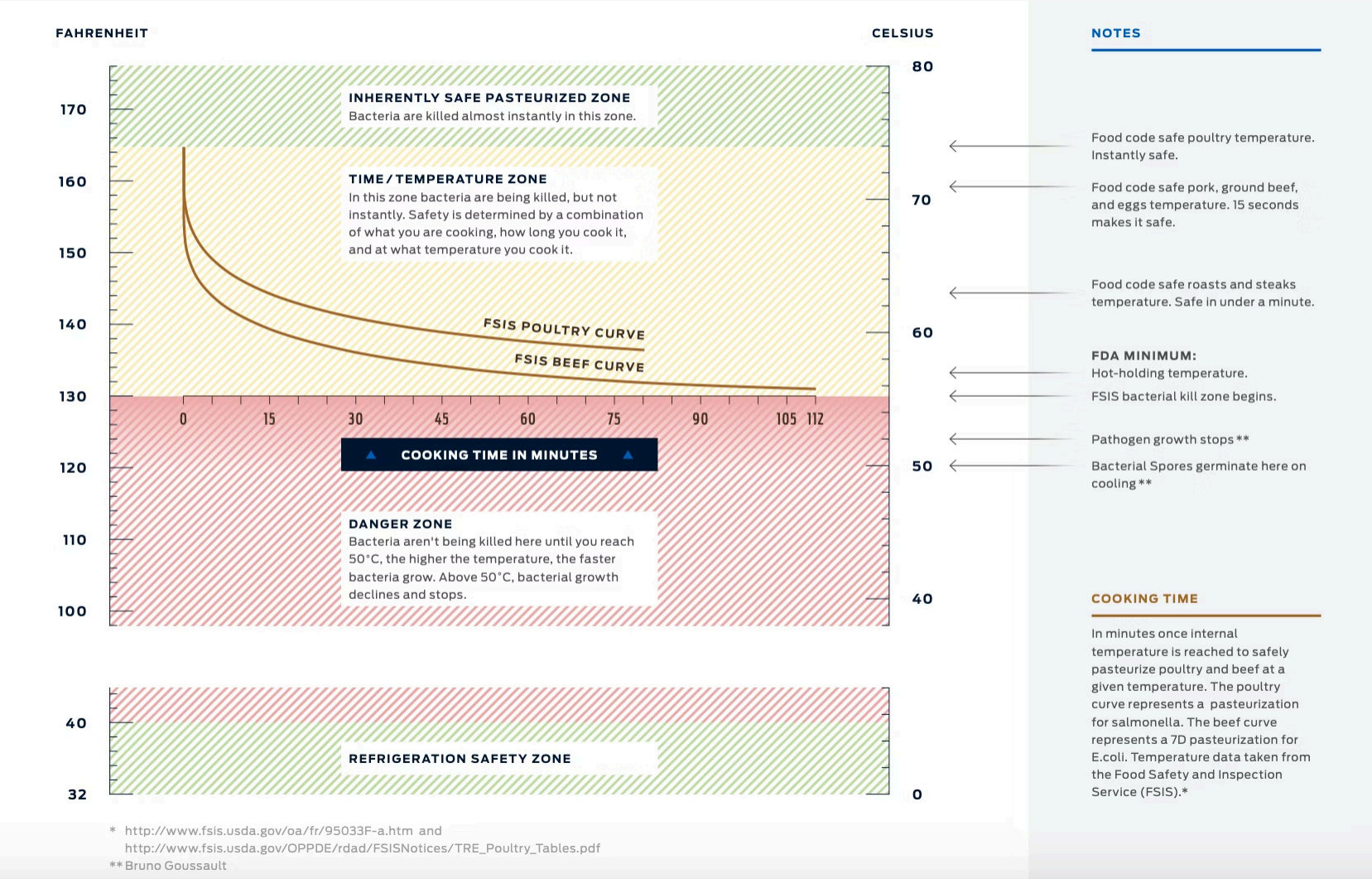
Lightly torch surface for color. Drizzle or brush with olive oil.

6. Plating:

Plate over stewed cucumber noodles. Top with a **Sterling caviar quenelle**. Serve immediately.



Bacteria and Safety Guide



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We hope this guide has been a valuable resource in enhancing your culinary safety knowledge. For more expert tips, delicious recipes, and a wealth of culinary resources, we invite you to explore our website:

www.rosendaleonline.com

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