**EGGS: THE FOUNDATION OF A KITCHEN**

**COOKING EGGS “101”**

***Fried Eggs***

***Scrambled Eggs***

***Poached Eggs***

***Sous Vide Egg***

***French Folded Omelette***

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| PERFECT FRIED EGG “sunny side up” | **NOTES:**- clarified butter minimizes excessive browning on bottom which can occur with whole butter (solids) |
| **Amt** | **Ingredient** | **Prep**  | **TOOLS REQUIRED** |
| 2  | *Egg* | Strained | Strainer | Ramekin |
| 1-2 tsp | *Butter* | Clarified |  Non-stick frying pan |
| t/t | *Salt & Pepper* |  | Spatula  |  |
| **METHODOLOGY*** Break one egg into a strainer to remove/separate thin white from thick -- transfer the strained egg into a ramekin -- repeat with second (or remaining eggs) – 1 egg per ramekin
* Preheat a non-stick pan to warm but not hot (medium heat ~45 seconds)- add a small amount of clarified butter – allow to melt – swirl in pan
* Carefully add the egg to the pan, having the ramekin close to the pan (to prevent the yolk from cracking as it falls/hits the pan) – add second or remaining eggs -- immediately reduce heat – cook on low heat 3-5 minutes until whites are set
* ***A NOTE ON DIFFERENT DONENESSES***

-- if **over medium** flip after whites are set – cook approx 1.5 min (4.5 total)-- if **over hard** – flip after whites are set – cook approx 3 mins (6 total)  |

 For best results – use fresh eggs; strain to separate loose whites; cook lower and slower for control

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| GORDON RAMSAYSCRAMBLED EGGS  | **NOTES:**- the end result is a creamy product -- aided by the addition of dairy which adds richness and cools the temp thus stopping the cooking- sour cream can be used in sub of crème fraiche  |
| **Amt** | **Ingredient** | **Prep**  | **TOOLS REQUIRED** |
| 6 | *Eggs* | Whisked  | Cut board | Knife |
| 1 Tbs | *Butter* | Cold cube |  Whisk | Bowl |
| t/t | *Salt & Pepper* |  | Non-stick frying pan |
| 1-3 tsp | *Crème Fraiche* |  | Spatula |  |
| 1 Tbs | *Chives* |  |  |  |
| **METHODOLOGY*** Crack the eggs into a bowl and whisk to incorporate
* Add eggs to a non-stick pan (10” ideal)
* Add the cold cubed butter to the eggs and turn on the heat (med-high)
* Stir constantly with a rubber spatula (don’t whisk) ensuring to scrape bottom
* After 30 seconds – take the pan off the heat -- keep stirring off the heat for 10 more seconds
* Repeat this 30 on / 10 off for approx 3 minutes
* In the last minute (after eggs have some texture) season lightly -- for extra creamy texture fold in the crème fraiche
* Plate on a warm dish; garnish with chives (and or chervil)
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<https://www.gordonramsayrestaurants.com/recipes/scrambled-eggs/>

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| IN SHELL COOKED / CODDLED EGG | **NOTES:**- yields a just yet fully set yolk without overcooking (initially or via carryover cooking) |
| **Amt** | **Ingredient** | **Prep**  | **TOOLS REQUIRED** |
| 6  | *Eggs* |  | Pot | Lid |
|  |  |  |  Saran | Timer |
|  |  |  | Ice bath |  |
| **METHODOLOGY*** Place eggs into a small pot; large enough so they sit in one single layer on bottom
* Fill the pot with just enough cold water to cover eggs by approx ¾”
* Place on element/burner and bring to a full/rolling boil (uncovered to watch)
* As soon as at a full boil – remove from heat – cover with saran & lid  -- set aside off heat / covered – start timer: **-- soft yolk – 4-6 mins -- medium yolk – 6-8 mins -- just but fully set – 11 minutes**
* ONCE timed – remove from hot water -then store the eggs in reserved ice bath -- this quick cool method helps to prevent overcooking and minimize oxidization; aka the dark greenish/black ring around the yolk with prominent sulfur aroma
* Once completely cooled in ice bath (15 mins) peel by hand (in water)  -- note if looking for **HARD BOILED** – ***simply boil for 8 full minutes ON THE HEAT.***
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| Pierce the large end of the eggs with a pin or needle.* This pierces the air cell in the egg, allowing the air to escape, which prevents a flat spot from forming on the large end of the egg during the cooking process.
* It also helps to make the eggs easier to peel after cooking.
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**SOUS VIDE – A BACKGROUND:**

Sous-Vide cooking developed out of the Nouvelle movement of French Cuisine. As health conscious chefs increasingly shied away from heavy and rich cuisine they moved instead towards a more clean, precise, lower fat, yet still “authentic” way of cooking.

Part of this movement emphasized a returned focus to vegetables on the plate and in the menu. Sous-Vide Cooking developed as a way to showcase commodities in their singular form; unobstructed by other elements… no butter in the pan; not even water from the pot. Cooks, collaborating with scientists and engineers, devised a way to combine the elements of sous-vide pressurization, and the low-temperature cooking precision allowed by immersion circulators.

The **Sous Vide** aspect is achieved via a chamber vacuum specially designed to pressurize a confined space; extract the air, then seal a commodity free of air, and constantly under pressure until the bag is opened.

Mixing this with **immersion circulators**, which allow cooks to regulate water temperatures to 1/10th of a degree Celsius; while also creating an artificial current similar to boiling but at much low temperatures; thus creating a fundamentally new cooking method.

The primary purpose of a sous vide, vs say poaching or a slow cooker, is its ability to dial in precise temperature control: to within 1/10th of a degree Celsius. It constantly reads the water temperature and increase or decreases with its own heater and motor (for current) to regulate the temperature in a constant and controlled way.

It is this reason that, so long as we’ve chosen the appropriate temperatures to set, we will never overcook something via sous-vide. Because the cooking medium is never higher than our final cooking temp we can’t “overcook” it. In on a 1000F grill we can easily overcook our steak which we aim to have internally to 125F… in a 125F water bath we cannot overcook it; regardless of how long it stays in the water it will never cook beyond the desired doneness you have programmed.

**ARTIFICIAL CONVECTION CURRENT?**

As part of our understanding of our ***medium of heat transfer*** (water, air oil) we must also understand the ***way in which heat is* delivered** in a kitchen (conduction, convection, radiant) AKA ***means of heat transfer.*** With boiling, and or any wet method, we are relying on convection as the way that heat is actually delivered to the commodity (moving from hot to cold).

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| Macintosh HD:Users:elisilverthorne:Desktop:f08_16.jpg |  - as heat is transferred to the pot through conduction, it heats the water which heats and transfers energy to the commodity via convection. -- as water near burner heats, it rises, cools and returns to the bottom creating a vortex current or ***convection effect*** (see image to left 🡨)  |

The hotter the current the more vigorous the boil, the more efficient the heat transfer.

* *BOILING = 212F = full rolling boil*
* *SIMMER = 180-200 = noticeable to vigorous bubbling*
* *POACHING = 160-180F = minimal bubbling – barely breaking surface.*

SO… *boiling water is not only hotter, but also more efficient at delivering that same energy – due to increased currents; than say simmering, or poaching*. What sous-vide does is level this playing field. With sous-vide, much like with a convection oven, we have an artificial or man-made current created (not relative to the temperature of the water); so that we can cook at poaching or simmering temp – with an artificially increased current (efficiency).

**THE BENEFITS OF SOUS-VIDE**

**UNIFORM COOKING:** The greatest advantage of sous-vide to either the home or the pro cook is uniform cooking. You will get the same result every time regardless of which line-cook is working. Also it will be uniformly good because it is entirely pre-programmed. So long as temperatures guidelines are followed it is virtually fool proof.

**LITTLE ATTENTION REQUIRED:** because we are cooking at lower temperatures we cannot burn, and because of a zero delta curve we cannot even overcook. We cannot alter it once it’s in the bag so it’s simply a waiting game til done. Sometimes the cooking process is multi-day, allowing you to go home worry-free; so long as there is enough water in the tank to account for any evaporation while you are gone.



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| SOUS VIDE EGG  | **NOTES:** |
| **Amt** | **Ingredient** | **Prep**  | **TOOLS REQUIRED** |
| 12 | *Eggs* |  | Water bath | Sous vide |
|  |  |  |  Long tongs | Timer  |
|  |  |  |  |  |
| **METHODOLOGY*** Set bath to 63oC (145.4oF)
* Carefully lower eggs in one at a time with long tongs (to prevent shell breaking)
* Allow water bat to return to 63oC (if it drops)
* Cook eggs for 45 minutes
* Remove eggs from bath
* Break from shell (remove white if desired) serve immediately
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***DOES SALTING TIME REALLY MATTER???***

According to Kenji Lopez Alt, author of THE FOOD LAB, when we salt makes a considerable difference on the end result of our delicate eggs. As we can see from the image below, not only does salting in advance cause a considerable effect on the colour (making a deeper, richer, more “farm fresh” appearance), it also makes eggs more tender and fluffy. The reason for this is that by “adding salt to the eggs well before cooking [you] can prevent the proteins from bonding too tightly by reducing their attraction to one another (chemically), thus resulting in a more tender curd less likely to ‘weep moisture.”

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| **15 MINS PRIOR TO**  darkest colour least watery softest curds**JUST BEFORE** = moderate tenderModerate water weeping**SALTING NEAR END** = toughest texture of three with highest tendency to “weep” moisture  |  **NOT SALTED SALTED  & RESTED 20 mins** |

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| TRADITIONAL POACHED EGGS | **NOTES:** - start water hotter than poaching temp (ie 175F) to account for temp drop as cool eggs are added / water is stirred - acidulation is important to set proteins |
| **Amt** | **Ingredient** | **Prep**  | **TOOLS REQUIRED** |
| 3L  | *Water* |  | Pot | Slot spoon |
| 3 Tbs | *White Wine Vinegar* |  |  Ramekin | Shock bowl |
| 1 Tbs | *Salt*  |  |  |  |
| 8  | *Eggs* |  |  |  |
| **METHODOLOGY****INITIAL COOKING OF EGGS*** Fill a small stainless steel bowl with cold ice water, set aside to store/shock cooked eggs
* Fill sauce pan with at least 6” deep water – bring to a boil -- add vinegar, salt (1/2 tsp salt and 1 Tbs vinegar per 1L of water)
* Break each of 4 eggs into individual ramekins  -- Straining 1st to separate and remove the loose outer egg white first is ideal)
* Reduce temperature of water to a simmer (175F)  – using spoon spin/stir water to create a water vortex currant in the pot
* Drop eggs one at a time to simmering spinning acidulated/salted water -- stir water to keep current moving -- Add 3 remaining eggs in similar fashion
* Start time for 3 minutes – maintain water temp approximately 160-165F  - once poached for 3 mins remove each, individually, using a slotted spoon  -- transfer to ice bath to stop cooking process
* Allow eggs to cool to COLD – continue poaching another 4 eggs --- continuing process till 16 eggs have been cooked

**COOLING / TRIMMING OF EGGS*** Once all eggs have been poached/cooled -- carefully remove from water one at a time – trim edges to clean up -- after trimming – return to fresh/cold water – store in fridge until use (reheat)

**SECOND COOK / REHEAT of POACHED EGGS – Alternative methods*** **METHOD #1** -- Heat tap water as hot as will allow -- fill a container with hot water – allow eggs to come to temp approx 12 mins.
* **METHOD #2** - Bring fresh water to simmer (175) with only salt (no vinegar)
* Remove eggs from fridge cold water
* Reheat eggs, several at time, in fresh salted water (160) for approx 2 minutes
* Take out one at a time – dab on cloth to remove excess moisture before plating/using as a hot poached egg (with oozy liquid center)
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**SOME NOTES ON THIS RECIPE:**

* Acid in the recipe helps set/coagulate the proteins that set at a lower temperature in poaching temps (160-180F) than they do when boiled (212F)
* Stirring helps promote convection; create the pouche or pocket effect we know/see with a well-made poached egg
* Use the freshest eggs possible; and or strain to remove loose white
 -- “loose whites” or tails can also be trimmed up between first and 2nd cooking also.

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| FRENCH FOLDED OMELETTE  | **NOTES:**- clarified butter prevents unwanted browning to occur from milk solids  |
| **Amt** | **Ingredient** | **Prep**  | **TOOLS REQUIRED** |
|  3 | *Eggs* |  | Bowl | Whisk |
| 1-2 Tbs | *Butter* | Clarified  |  Frying pan | Spatula  |
| t/t | *Salt & Pepper* |  | Clean towel  |  |
| **METHODOLOGY****MIXING OF THE EGGS*** Mix eggs with fork or whisk till frothy – season with salt and pepper – let rest 20 mins

**HEATING OF PAN / ADDING OF BUTTER*** Melt butter in omelette’s pan, (10” non-stick); allow to melt/coat all edges med-high heat -- we use clarified butter to prevent browning  -- we don’t want the pan excessively hot either.

**ADDING THE EGG / STIRRING/SETTING THE CURD*** Add eggs and stir briskly with spatula in circular motion – then reduce the heat to medium low
* Once a curd begins to form neat the bottom of the pan – quit stirring -- to fill nooks/crannies lift pan off heat – and begin tipping pan to allow uncooked loose egg to fill the empty parts of the pan
* Continue cooking on lower heat until bottom close to set and exposed egg still largely runny – if adding a “filling” do so in the middle at this point.

**FOLDING THE OMELETTES*** Hold pan handle in one hand – so that the handle is at 3 o’clock  -- (9 o’clock if left handed)
* Give handle a sharp tap with other hand
* Begin to book fold the omelet – so one third (handle side) moved towards the middle third of the omelets  -- tap with wrist again
* Then, slowly, while tilting, begin to lift handle so the double edge omelet begins sliding out (away from handle) – forcing the unfolded omelet up on the pan edge -- then using your spatula begin to carefully fold this over the other to complete the book or tri-fold process

**REMOVING THE OMELETTES FROM THE PAN*** Move your plate close to your pan, then gracefully yet forcefully Inverting pan upside down(moving the pan from 3 to 9 o’clock, spilling the omelet on to the plate with the new fold and seam side down
* Using a clean cloth shape this omelettes into an elliptical “Cat Eye” shape -- brush with additional clarified butter and garnish with herbs / chives etc.
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[*https://www.youtube.com/watch?v=qXPhVYpQLPA*](https://www.youtube.com/watch?v=qXPhVYpQLPA)

***WATCH POINTS – to MAKE OR BREAK THE DISH*** *- finely integrated colour (no white blotches) – no colour or browning from over cooking
- smooth runny curd / custardy like on the interior – with proper seasoning
- multiple defined layering / proper folding
- smooth shine and exterior with proper shape and elliptical aesthetic*

*- no excess fat on plate – or mess aside from omelet in any way.*