

## Cooking Methods

### Blanching

To blanch means simply to cook it quickly in water. Traditional methods also teach to “shock” the vegetables that are blanched in cold water to stop the cooking process. This may be fine for solid vegetables like carrots or rutabagas, but for water-absorbing vegetables like broccoli, we believe that stopping the process with cool air (whether that’s on your counter or in the refrigerator) is better. Stopping the cooking process in cold water causes the broccoli to absorb water. Instead, cool air is drier and allows the broccoli to absorb flavors from other added ingredients such as garlic or lemon.

Here’s how to do it:

Fill a 4-quart pot with water, cover and bring it to a boil, which should take about 8 minutes. Use a standard size bunch of broccoli or whatever vegetable. Cut the florets into relatively uniform sized small pieces, so they all cook at the same rate. Consistency in size will allow for consistency in cooking. Both the florets and stems are delicious. Peel from the top of the stem (the part where the florets branch out from) to the bottom. Then cut the floret off the top and cut the bottom of the stem where it looks a little bulbous and tough. If where you cut on the bottom is hard to cut through, cut higher up. Dispose the tough parts of the stem. Next, cut the stem into quarters lengthwise, so you have four long sticks that are about the same thickness as the thickest floret stems. Then cut those sticks into whatever sized pieces you want. You can make short sticks (like a carrot stick) or you can cut them up into small, square pieces, or something in between.

Break up the florets. Cut them away from the base of the bunch where they come together into groupings of relatively equal size. When your water boils, drop all the broccoli gently into the water. It will stop boiling. Cook it until the water just about comes back to a boil again and pour the contents of the pot into a strainer in the sink. Shake out the strainer a bit to get rid of some of the excess water. Even push on the florets and stems to drain the water from them. The dryer the broccoli is, before you move onto the next step, the better. Refrigerate or set the broccoli on the counter immediately to cool.

You can eat it as is (blanched), which is excellent when dipped in Baba Ghanoush, Guacamole or Sweet Potato Hummus (see our recipes). You can also sauté with garlic, ginger, lemon or chili paste for another amazing way to increase flavor.

## Sautéing

In French, “sauté” means “to jump.” To sauté food is to cook it over high heat thoroughly and quickly retaining its shape and nutritional value. Sautéing requires high heat, little time, fast action, and an uncovered low-profile pan with enough fat to coat the bottom. Before sautéing, food is cut into small pieces – dices, strips, or slices – to increase its surface area, which speeds the cooking process.

There are three key principles to sautéing well: 1) Use small pieces (they have larger surface to volume ratio than larger pieces); 2) Cook just a small amount at a time; and 3) Apply high heat. If you sauté only small amounts at a time, each piece can be heated and cooked by the fat very quickly, and the moisture does not escape from the food. If there is too much food in the pan, the temperature in the pan drops too low to brown the food, moisture escapes, and the food steams rather than sautés.

Additional things to consider:

Mist the pan with oil. A very small amount of fat will bring out the flavor in foods like garlic, onions and shallots. Cooking garlic together with oil results with a flavor that cannot be achieved without it and adds complexity to a dish. A little fat will be invaluable and go a long way to bring out the flavors that would otherwise not occur in the same way.

Frequently, it is suggested in popular press to sauté foods in liquid to save on calories derived from fat. You cannot sauté in a liquid! In liquid, you can steam, boil, poach and simmer but you can't sauté. So why do people call this sautéing? Because sauté sounds a lot more palatable than the words like boil or poach. Medicine is a scientific discipline based on evidence. And so is the basis of chemical and physical reactions that occur when foods react to heat, moisture, temperature and other foods in a time-dependent manner. The two examples are the savory taste named umami by Kikunae Ikeda in 1908 and the Maillard reaction, first described by Louis-Camille Maillard in 1912. These examples illustrate the mechanisms by which plant proteins and sugars interact and change when exposed to heat for a specific amount of time to yield highly flavorful results. If garlic is sautéed in water, the end result would not be the same if just the slightest amount of oil were used.

You can use extra-virgin olive oil for sautéing, but always remember that oil is a fat, and fat calories are still fat calories no matter what type of oil you use. So, you should use the least amount of fat to prepare foods while getting the greatest amount of taste and flavor. Because any fat is about 120 calories per tablespoon you want to get the most mileage from oils by using them to infuse flavors in rubs, vinaigrettes, cooking and caramelizing foods and achieving the incredible umami flavor of shiitake mushrooms. So the bottom line, when cooking with oil, is “less is more”. Use less oil to achieve

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greater health and flavor benefits. Buy oils in small quantities and keep in a cool, dark place. Air, light and heat oxidize fatty acids in oils leading to their faster deterioration, making them unstable and eventually unsafe to use.

Back to our broccoli. Here's how to add flavor, using broccoli as our example: While the broccoli is drying out from blanching, heat up a 12-inch sauté pan. When the pan is hot, add a small amount of extra virgin olive oil (add chili flakes, rosemary, garlic or onions if you like). After about 30 seconds, add the broccoli. Let it cook in the hot oil for about a minute, undisturbed, and then turn it with a spoon or spatula. Add garlic, lemon juice, chopped tomatoes, herbs or your favorite spice for another two minutes. Add a little salt at the end if you like.

You can practice jumping the broccoli in the pan just like professional chefs by putting a can lid or piece of dry toast in a small omelet pan and try flipping it over. Once you are good at the mechanics of this, and handling a larger pan, you'll be able to sauté and jump foods in a pan just like the pros.

Some veggies don't need to be blanched before they're sautéed. For example, cauliflower can just be sautéed to develop a nice brown color as a result (this is the Maillard reaction). Also, Brussels sprouts are great sautéed (or roasted) and not cooked in water first. Brussels sprouts today are not the same as decades ago. The cultivated Brussels sprouts we buy today have less glucosinolates, which are the compounds that give Brussels sprouts (and other cruciferous vegetables) their bitter flavor. Therefore, it is even easier to get that sweet and fabulous umami flavor of roasted Brussels sprouts from well-executed browning. You can also sauté leafy greens, like kale, if you like them just wilted. Two secrets: use a small amount of food in the sauté pan at any one time, and apply a high enough heat for the amount of greens relative to the size of your pan. If you sauté only a very small amount in the pan at one time it retains its moisture. Too much food and the pan drops its temperature, the food loses its moisture, and it really steams rather than sautés.

## **Steaming**

Steaming is often (but not always) a technique used for food that cooks quickly. The food is cooked by hot steam that rises from the boiling water, teas or broths seasoned with aromatics below, and the food never touches the water. Steaming is a particularly healthy and low-calorie way to cook, as no extra fats are used. Also, the water-soluble vitamins, that would be lost if you boiled certain foods, such as vegetables, are retained more when you steam them, because they are cooked in a vapor bath and not touching the liquid. To prevent moisture loss from delicate fish, it can be wrapped in leafy greens or even in parchment paper, like the old classic Pompano en-Papillote, which will then capture juices and any added herbs, spices and aromatics for intense flavors. Try not to overcook your vegetables in your steamer. When the colors turn bright, they're usually ready.

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## Poaching and Simmering

Poaching is similar to steaming in its methodology, but involves placing the food in, not above, gently simmering water, kept at a consistent temperature, around 185° Fahrenheit. Simmering is when air bubbles are breaking around 200° and below boiling at 212°. For extra flavor, poach your food in wine or low-sodium broth and experiment with adding different herbs, such as thyme or bay leaves. You can control the temperature by the heat source and by covering, partially covering, or completely uncovering the pot.

## Roasting

Roasting cooks foods by surrounding them in hot, dry air. The oldest and original form of roasting is spit roasting, which is still done today, when people cook over a campfire. Most roasting, however, is done in an oven. Roasting vegetables in the oven can help you achieve great texture and flavor. For some vegetables like a rutabaga, a quick blanch beforehand is recommended. Roasting slowly brings out flavor and sweetness. It helps foods like plum tomatoes retain their shape and color.

Tips for roasting:

Preheat the oven to 350° with your sheet pan inside the oven, while you prepare the vegetables. Use an oven thermometer. Built-in thermometers are notoriously inaccurate. Cut veggies in even sizes. In a mixing bowl, add a small amount of olive oil (a little will go a long way), salt, pepper, lemon zest, chopped garlic and your choice of herbs and spices. Mix thoroughly, to infuse the oil with all the goodness that you added. Add vegetables, toss until well coated and roast until tender. Some vegetables, like fresh, small carrots ½ inch in diameter, can even be roasted whole, or cut in half if too long.

Spread out the vegetables on a parchment covered baking sheet pan or a non-stick baking sheet pan so they're evenly dispersed throughout the pan. The less crowded they are, the browner they will get. Put the pan back in the oven and cook. After about 15 to 20 minutes, check if they are getting brown and if so, then move or turn them over. If they are not, keep cooking until they brown and then flip. Continue cooking until they are at the degree of doneness you like, somewhere between 30 and 50 minutes is usually sufficient, depending on how you cut them (the size) and your oven. Add some fresh parsley to garnish at the end, place in serving dish and voila!

## **Baking**

Baking is a dry heat cooking method in which foods are surrounded by hot, dry air in a closed environment – an oven. Very similar to roasting, baking typically refers to cooking a batter or dough into something more solid, such as bread. As previously said in roasting, an oven thermometer can come in handy to adjust the temperatures accordingly and ensure proper cooking. A recommendation is to invest in aluminum half-sheet pans. These pans sometimes come with ceramic or other nonstick coatings that require less oil and provide easier cleanup. Use the center of the oven for even cooking. Also, rotate the pan halfway through the baking time. For example: when cooking for 30 minutes, rotate pan 180 degrees after 15 minutes, to achieve even baking. If you are using more than one tray, switch the racks when they are baked halfway through, so that food in both trays are exposed to similar temperatures. Baking requires following steps precisely, whether it is measuring ingredients accurately or executing a technique properly, to obtain the desired outcome.

## **Braising**

Braising involves slow cooking in a combination of dry heat and little liquid. Most times, braising is intended for less tender cuts of meat, which we do not recommend consuming. You can braise fish and vegetables with less liquid than in stewing. Most vegetables, however, are likely to be over-cooked and some nutrients destroyed or diminished). Braising is a good method for some vegetables such as leeks, fennel, and celery that develop better flavor during slow cooking.

## **Broiling**

Although similar to grilling, broiling uses high temperatures and radiant heat from an overhead source. Food is placed on a grate or platter under a broiler or Salamandra. It is a dry heat cooking method used for browning, melting, and cooking.

## **Grilling**

Grilling uses a heat source located below the cooking surface and can give a great flavor to food if practiced safely. Heat is transferred to the food through radiant heat and conduction between the food and the grill rack itself. There are different ways of grilling. Grilling can occur in a skillet with ridged surfaces used to pan-grill or griddling, similar to grilling in which foods are cooked on the heated surface of a flat solid griddle with different temperature zones.

## **Outdoor Grilling and Barbequing**

Culinary trends come and go. Some are health-promoting, like making dishes with kale, chia seeds and quinoa, and then some are not, like the recent trend to burn and char foods on the grill. Mainstream magazines are blitzing this chef craze with titles like “The New Black”, “Dessert on the Dark Side”, “Ashes to Ashes”, “Burn Baby Burn” and “Job

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WELL Done”. All these articles promote what they describe as “intentional charred deliciousness”. There are health risks associated with eating heavily seared and charred foods.

First, the American Institute of Cancer Research, American Cancer Society and National Cancer Institute warn that grilling may increase the risk of various cancers. There is evidence that charring foods can damage our genes and may lead to cancer development or progression. Any food that is charred is a source of carcinogens (cancer-causing chemicals), whether it is popcorn, leeks, meat or bread products, like the outdoor grilled bread for bruschetta. Cancer-causing compounds called heterocyclic amines (HCAs) are produced when animal protein is cooked at the high temperatures used in grilling and broiling. Other cancer-causing compounds called polycyclic aromatic hydrocarbons (PAHs) are formed when the fat in meat drips onto hot coals. As food cooks on the grill, flames and smoke help deposit the PAHs onto the food. Second, there is also the concern regarding sodium nitrite, a simple salt used in bacon, ham, hot dogs, cold cuts and other cured foods that are frequently grilled. Ingestion of such foods can form nitrosamines which are known to be powerful carcinogens in animals and humans.

Marinades May Help: Some studies have suggested that marinating meat prior to grilling can actually reduce the formation of HCAs.

Studies show a significant decrease of HCAs formation when foods are marinated with herbs like rosemary, basil, thyme, oregano, sage, marjoram, and mint, prior to grilling. In addition to lowering cancer-causing compounds in your food, marinades can keep food moist during grilling and boost the flavor. A note of caution. Don't reuse marinades. The Food Safety and Inspection Service of the United States Department of Agriculture warns against this practice, unless you boil the marinade first to destroy bacteria. In summary, using a fresh marinade for basting is easy, makes grilled foods safer, and better tasting.

Think Small, Lean and Thin: If foods to be grilled or barbecued (see our Grilled Salmon recipe) are small and thin they will need less time on the barbecue grill. The salmon in our recipe is only on the grill for two minutes, because it is cut into 1½ ounce slices on a bias. This allows the salmon to capture the grilled flavor while decreasing the risk associated with grilling due to greatly reduced exposure time. Ensure products are lean and well-trimmed of fat to reduce the possibility of flames, which cause burning and charring, and leading to the formation of carcinogens.

### **Safe Grilling Tips:**

- Think small, lean and thin.
- Marinate foods prior to grilling with herbs.
- Drain off excess marinade well, to avoid flames.
- Place products on cold racks, at beginning of cooking, to prevent char marks on the food.
- Use a cooker or barbecue grill where you can raise or lower the rack.
- Use a cooker with a cover and base vent to control of the amount of oxygen that gets inside, therefore controlling the flame or eliminate it.
- Turn foods frequently to prevent charring.
- Eliminate any use of salt-cured, smoked, and nitrite-cured foods.
- Have an off-set fire to moderate the heat by having a cooler area on the grill.
- Avoid charcoal briquettes that contain chemicals.
- Ignite fire with an electric starter or chimney starter with newspaper, not lighter fluid.

When barbecuing outdoors on non-gas grills, arrange coals, preferably wood lump coals, in a pyramid shape over an electric charcoal lighter inside a cooker. The cooker needs to be equipped with a cover and vents that open and close on the sides or top of the cooker. This creates a pyramid effect for the most efficient retention of heat. Plug in the electric lighter. Once a flame is noticed in the coals, remove the electric lighter and restack the coals into a pyramid shape.

Once the coals turn white-hot, flatten and scatter them. To prevent burning and charring, move cooked pieces of food off to the side and give the remaining uncooked foods the attention of the hottest part of the grill.

In summary. Keep foods small, lean, and thin. Marinate with herbs, drain marinade from foods, turn frequently, and avoid any burning or charring. Follow these steps and your grilled foods will not only be tasty, but healthier too!

### **Microwave Cooking**

Microwave cooking is great when you need to prepare meals in a simple, fast and easy way. You can use it to steam veggies, melt chocolate, and cook potatoes. Make sure you pierce items like potatoes first, to allow steam to escape, so they don't burst. The moisture in vegetables is often sufficient to cook them well, like in an ear of corn on the cob. Some vegetables, like collard greens and kale, need to be microwaved with water. Whatever foods you microwave, do not use plastic, resin, or metal containers. Glass is the best.

## **Cooking and Texture – Judging Doneness**

The single most important ingredient in any recipe is the skill by which it is executed. It is very possible that three different people can make the same recipe and get three different outcomes. A four ounce piece of salmon that is small, but thick, will not cook the same as a piece that is thin and wide. Both are identical in weight, but by virtue of their shape and size, they will cook differently. How do you know when it's time to flip and turn, gauge time, temperature and degree of doneness? When toasting nuts, a toaster oven will cook differently than a standard gas oven. Are the nuts whole, halves, pieces or a combination of sizes? Is the pan stainless steel, aluminum, coated or ceramic? There are many variables in kitchens that can change recipe outcomes. This is why judging doneness during the cooking process is so important. The texture of food is a function of its physical nature, requiring careful consideration, to determine the method of preparing, and how it feels and tastes when we chew.

Even before the cooking begins, it's very important to practice cutting foods into same or similar size pieces. Consistency in size equates to consistency in doneness. For example, cutting the ingredients into smaller pieces makes the texture more pleasing, easier to chew, and creates a better chance to get more ingredients into every bite.

Judging doneness takes practice. The more you cook, the better you'll be able to determine when the salmon is cooked, but not overdone, or when the broccoli is just al dente. The best way to determine if something is cooked properly, or not, is to taste it. When cooking farro, dip a fork into the pot and taste a little to see if it's done. There are small food thermometers, to pierce foods like salmon, to get a temperature reading. There are certain aspects to consider when doing this. For example, it's important that when inserting the thermometer probe, it is placed to the correct depth, and in a place that's not too close to a heat source, to get an accurate temperature reading. Fresh fish is transparent when raw and begins to change its appearance when heat is applied. You can lift a piece of salmon and gently bend it until it just begins to break, exposing the inside. Determine if it's done or not by considering some other factors, such as: Its color, how glossy or transparent it is, if it's opaque and if it's done to your liking. Because fish is delicate and fragile, it is easy to overcook and will be dry and tough due to the loss of moisture. Once you become more experienced, you'll be able to touch the salmon and determine its doneness by its firmness, color and appearance.

Whether its mushrooms or vegetables, the preparation of cutting, method of cooking, time, temperature and degree of doneness are critical to the outcome. The best way to achieve mastery is to be mindfully aware of every step in the process, make notes if necessary, and adjust accordingly. Don't despair! With practice it will get easier and easier, and you will be amazed at how well you cook.



## Blending

Merriam Webster defines blending as “to produce a harmonious effect” and “to combine into an integrated whole”. The blending of diverse types of foods is of particular importance when we are trying to reduce or replace added sugars, sodium and fat. And that can be tricky. Making a textbook vinaigrette that consists of 3 parts oil to one-part acid is easy, but it becomes challenging when doing so with a one to one ratio or with no oil at all. We have different taste preferences, dietary restrictions, and food budgets. Therefore, both the selection of ingredients and the mechanics of blending, become really important when trying to prepare healthier meals that taste great to YOU. And that’s the key!

When trying to blend vinaigrette with one to one ratio of oil to acid, I actually add the acid to the oil while whisking and it holds long enough to toss in my broccoli. Now this is the exact opposite of how I was taught in culinary school, years ago. They taught then, and still do, to use a three-part oil to one-part acid vinaigrette. To give the vinaigrette staying power and thickness, I mash-in cooked legumes that I find complimentary in taste, such as a white bean like, great northern, navy or cannellini. This blending adds viscosity and denseness to the vinaigrette along with great flavors, protein and fiber. That makes it taste not only great but it is also healthier! You would add legumes or fruits or cooked vegetables that are pleasing to YOU to thicken the vinaigrette. You get the idea!

Another example would be how much water to blend with the raisins when preparing a raisin reduction recipe to use in place of added sugars. If you want a thinner reduction for a light sauce, blend in two-parts water to one-part raisins and reduce to a thinner consistency. But you may need to prepare a thicker reduction if you plan to combine it with vinegar to create a vinaigrette that adheres well to the salad ingredients.

The timing of blending is also important. Blending a lemon juice vinaigrette too soon with broccoli will cause the acidic lemon juice to turn the broccoli yellow after 20 minutes. Mashing avocado too soon, without an acid, will cause the avocado to brown. Blending in fresh herbs, like parsley, is better to do in the later stages of cooking, and adding dried spices, salt and pepper in the early stages of cooking.

Consider this: What can you blend with foods for meal preparations you enjoy, that can reduce the amount of added sugars and still provide sweetness and nutritional benefits? An example in this toolkit is our recipe for raisin reduction. What can you add to make foods moist while reducing added oil? Review and try the Rutabaga, Carrot and Sweet Potato Mash recipe. And, to the amount of sodium, use vinegar, citrus, spices and herbs, try our Blueberry, Fig and Prune Dressing recipe.