

LCHF Nutrition/Intermittent Fasting

You are receiving this document because you are open to exploring an alternative nutritional lifestyle, one that in many ways contradicts conventional teachings and guidelines.

I am here to help you!

- Nutrition is such a loaded topic—almost a religious or political one—so I’m always looking for ways to explain nutrition that are as free from that baggage as possible.
- So far, the framework I use to explain eating is based on modifying three parameters (calorie, dietary, and time restriction) in various combinations.
- The “standard American diet” is essentially one that involves eating as much as you want (no calorie restriction), anything you want (no dietary restriction), and whenever you want (no time restriction). The further you can get away from this pattern of eating, the better you will be. You will be decreasing your risk for getting sick.

What is Time Restricted Feeding or Intermittent Fasting?



Well, it’s not a “diet” per se, but rather an eating pattern by basically eating just as the words sound: varying times of when you eat and when you don’t, for weight loss and many other health benefits.

- Intermittent fasting plans only restrict when you eat, not what you eat.
- However, I do recommend following a low carb diet (see additional information below) if you plan to intermittent fast, but there are technically no actual food restrictions.
- With so many different ways to intermittent fast, it’s pretty easy to make this age-old practice work for you, your lifestyle and your goals. Whether you’re new to fasting or just looking to learn more about it. Hopefully this information will help you make the best decisions for your body and kickstart your journey to health.
- Essentially, you will cycle between periods of fasting and eating with the most common being the 16:8 method (16 hour fast: 8 hour eating window), my personal favorite (see information below).

Is intermittent fasting a fad?

- The idea of fasting has been around for centuries, as food wasn’t always readily available like it is now.
- Fasting is also used in various religions and spiritual practices to start a purification process in the body or solidify one’s commitment to a higher power.

What are the benefits?

Studies have shown intermittent fasting can help:

- Regulate blood sugar levels and improve insulin sensitivity
- Improve mood and manage stress levels
- Improve gut microbiome
- Decrease calories consumed over a 24h period leading to weight loss
- Reduce risks of chronic diseases such as type II diabetes and high blood pressure; and lowered risk of cancers associated with obesity.

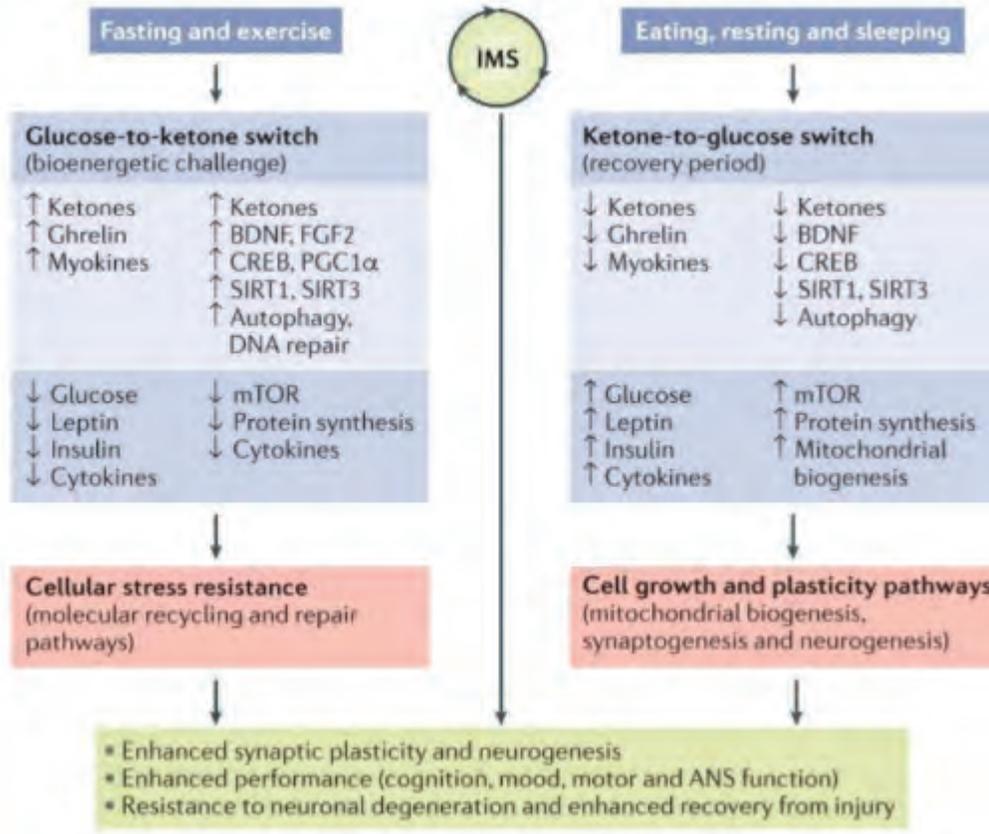
Two deeper reasons to do this?

- The benefits behind intermittent fasting happen at a cellular and molecular level (see diagram below)
- The beneficial effects of time restriction include metabolic switching (or flexibility) and stress resistance.
- Metabolic switching refers to the preferential shift from the use of glucose as a fuel source to the use of fatty acids and ketone bodies. Your ability to toggle back and forth between these two metabolic states is an indicator of

your metabolic flexibility.

- Time restricted feeding's benefits are independent of weight loss. We also know that ketone bodies produced from fasting are not only used for fuel, but are also signaling molecules that have positive effects on metabolism and are known to influence health and aging.

The illustration below helps illustrate my excitement for the importance of intermittent fasting. The neurobiology of wisdom can be found in the balance of growth and repair.



What happens to your body when you fast?

- After 8 hours of fasting, your body uses up its glucose reserves and begins to dip into stored fat for energy, leading to weight loss and an increase in metabolic function.
- Fasting gives your body a break from the process of digestion, so your cells and genes are able to focus on repairing themselves.

Insulin Levels

- Carbohydrates, particularly sugars and refined grains (think white flour and rice), are quickly broken down into sugar, which our cells use for energy.
 - If our cells don't use it all, we store it in our fat cells as, well, fat. But sugar can only enter our cells with insulin, a hormone made in the pancreas. Insulin brings sugar into the fat cells and keeps it there.
- Between meals, as long as we don't snack, our insulin levels will go down and our fat cells can then release fatty acids, to be used as energy. We lose weight if we let our insulin levels go down.

The entire idea is to allow the insulin levels to go down far enough and for long enough that we burn off our fat.

Human Growth Hormone

- The blood levels of the growth hormone increase and higher levels of this hormone facilitate fat burning and muscle gain

Cellular Repair

- The body begins to remove waste material from its cells

Intermittent Fasting Schedules options

There are lots of different options when it comes to how you can intermittent fast.

- Keep in mind that intermittent fasting isn't for everyone, and it is best suited to those who are already following a low carb way of eating (see information below).
- Fasting does not take the place of a balanced, nutrient-dense diet, but it can be a great compliment if you find a method that works for you.

12:12 Fasting Schedule

This intermittent fasting method is straightforward and simple.

- The shorter fasting window is easier to attain and safer for those who might not fare well with a longer fast. It's also a great way to experiment with fasting to see if it works for you.
- We have evolved to be in sync with the day/night cycle, i.e., a circadian rhythm. Our metabolism has adapted to daytime food, nighttime sleep. Nighttime eating is well associated with a higher risk of obesity, as well as diabetes.
- If you sleep from 11 p.m. to 7 a.m., you've already fasted for eight hours. Extending this time is a great way to knock out a large chunk of the fasting time, leaving very few "awake" hours to not eat.
- The main downside is that you likely won't see the dramatic impact, including mental clarity and cellular and gastrointestinal repair, that a longer fast might offer.

12:12 Fasting Schedule



eating schedules

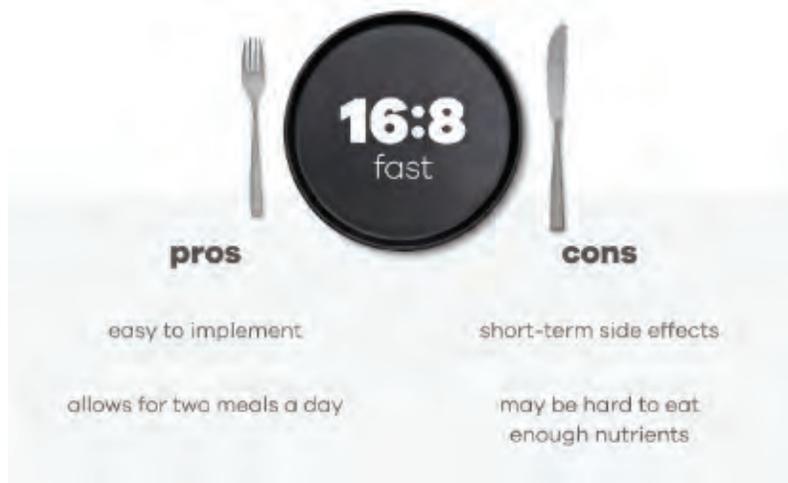
fast 12 hours | eat within a 12-hour window



The 16:8 method (Dr. Cooley's personal favorite)

This method is most often taken on as a daily practice but can also be used a few times a week depending on your personal preferences.

- One of the most common intermittent fasting schedules, 16:8, requires 16 hours of fasting at a time with an 8-hour eating window.
- 16 hours of fasting allows your body to burn more fat, regulate insulin levels and improve brain function, making it a great option if you've already mastered the 12:12 fast and you're eating a low carb diet (<100g of carbs/day).
- The remaining 16 hours should remain fasted (water/tea/black coffee/non caloric beverages allowed).



Side Effects

The most common side effect of the 16:8 fasting schedule happens during the first week.

- As the body transitions to its new eating schedule, you may have intense feelings of hunger and some irritability. You will mostly avoid these symptoms if you eat low carb to begin with since your insulin and hormones will already be fairly well regulated.
- Rest assured that these side effects are totally normal and tend to go away within a few weeks (as your body is great at adapting quickly to fasting patterns)! Those who adhere to the 16:8 schedule typically eat from 10 am to 6 pm (my personal favorite) or from 12 pm to 8 pm.

There are other fasting schedules that certainly can be explored later in your journey if desired. I list some of these here but will not go into detail in this document.

- 20:4 Fasting Schedule. Also called the Warrior Diet
- Full Day Fast (24H). Fasting for a 24-hour period can have major benefits, like helping to reset gut bacteria and improving cardiovascular health.
- Three Day Fast (72H). While there are researched benefits to this method, only drinking water for 3 whole days can be dangerous if not performed correctly.
 - o I do not recommend this diet in general.
 - o This method also accelerates cell turnover (known as autophagy), which involves the body clearing out damaged cells to make way for new, healthy cells.

eating schedules

fast 16 hours | eat within an 8-hour window



An example schedule for this plan is a weekend fast where you eat your last meal on Friday night and fast until Monday night. The 5:2 diet. On this fasting plan, you consume low-carb only 500–600 calories (should be 25% of your daily caloric needs) on two non-consecutive days of the week, but eat normally for the rest of the week. I do not recommend this diet.

What to eat/drink?

There are many opinions on what you should or should not be eating between fasting periods.

- You should be enjoying nutrient dense, lower carb, unprocessed food from whole food sources, NOT a diet of burgers, fries, candy and soda.
- Avoid sugars and refined grains. Instead, eat fruits, vegetables, beans, lentils, whole grains, lean proteins, and healthy fats (a sensible, plant-based, Mediterranean-style diet, or my personal favorite is a low carb, Keto diet).
- Let your body burn fat between meals. Don't snack. Be active throughout your day. Build muscle tone.
- Avoid snacking or eating at nighttime, all the time.

So does Intermittent fasting really work?

You must be the one to find the balance on what works with you and your body.

- If you dramatically lower your calories during your fasting days but then eat a ton of calories, sugar, carbs and junk food during your regular eating days, you may find that you aren't losing any weight or noticing any health benefits because of your food choices.
- It's even more effective for those individuals on a keto diet as the periods of fasting will enhance your state of ketosis (fat-burning state) even more! Let's talk low carb, high fat!

Low-carb, high-fat diet (LCHF)

WHY YOU NEED TO DITCH THE CARBS: THE ADVANTAGES OF A LOW-CARB DIET

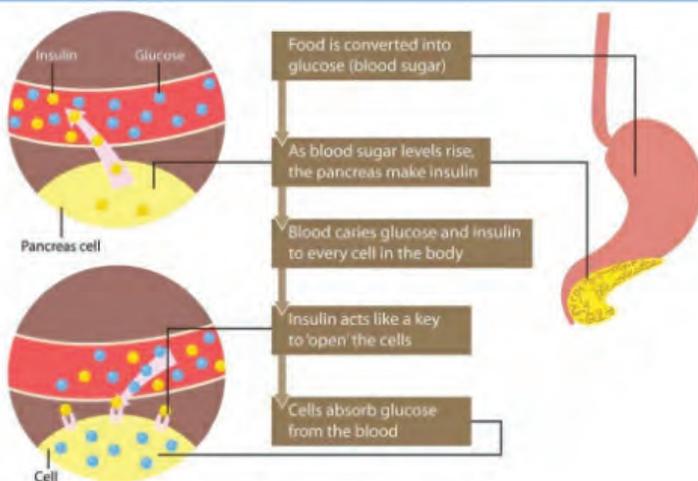
- In truth, fat is essential for your health, carbohydrates are not.

ADVANTAGES OF A LOW-CARB DIET ON BLOOD SUGAR AND INSULIN LEVELS

Eating carbohydrates have the biggest impact on our blood sugar and insulin levels.

- Restricting carbohydrates in our diet has a direct result in lowering our sugar levels and insulin needs.
- By lowering carbohydrate intake, blood sugars are controlled and insulin levels are minimized. This is incredibly beneficial for those with diabetes (type one or two) and those with insulin resistance.
- High sugar levels play a part in almost all chronic diseases such as type 2 diabetes, dementia, cancer and cardiovascular disease.

How body controls blood sugar levels



LOW CARB FOOD LIST

WHAT TO EAT ON A LOW CARB DIET?

VEGGIES	FLOUR	FISH & SHELLFISH	MEAT	FATS
Non Starchy & Green Leafy Vegetables is Best <ul style="list-style-type: none"> • Artichokes • Asparagus • Aubergine • Broccoli • Brussel Sprouts • Cabbage • Cauliflower • Celery • Cucumber • Garlic • Green Beans • Kale • Kimchi • Leeks • Lettuce (All Varieties) • Mushrooms • Okra • Onions • Peppers • Pumpkin • Radishes • Sauerkraut • Spinach • Sugar snap peas • Tomatoes • Zucchini 	<ul style="list-style-type: none"> • Almond Flour • Coconut Flour • Psyllium Husk • Other Nut Flours 	Choose Oily Fish when possible and Fresh over Canned <ul style="list-style-type: none"> • Cod • Crab • Halibut • Lobster • Mackerel • Mussels • Oysters • Plaice • Salmon • Sardines • Scallops • Shrimp • Trout • Tuna 	Eat Grass-fed Meat & Avoid Factory Farmed Meat <ul style="list-style-type: none"> • Bacon • Beef • Beef Jerky • Bison • Chicken • Duck • Goat • Lamb • Organ Meats • Pork • Poultry • Rabbit • Steak • Turkey • Veal • Venison 	<ul style="list-style-type: none"> • Avocado Oil • Beef tallow • Butter • Cocoa Butter • Coconut Butter • Coconut Oil • Duck Fat • Extra Virgin Olive Oil • Ghee • Goose Fat • Lard • Macadamia Oil • Mayonnaise • MCT Oil • Olive Oil
	DRINKS <ul style="list-style-type: none"> • Coffee • All Teas (Without added sugar or milk) • Bone Broth • Lemon Juice • Lime Juice • Water 			CONDIMENTS <ul style="list-style-type: none"> • Apple Cider Vinegar • Balsamic Vinegar • Cocoa powder • Dill Pickles • Dried herbs & spices • Fish Sauce • Horseradish • Hot sauces • Mayonnaise • Mustard • Pesto • Salsa • Soy sauce • Tabasco sauce • Wine vinegars
		NUTS & SEEDS <ul style="list-style-type: none"> • Almonds • Brazil Nuts • Chia Seeds • Hazelnuts • Macadamia Nuts • Pecans • Pine Nuts • Walnuts • Flaxseed • Hemp Seeds • Pumpkin Seeds • Sesame Seeds • Sunflower Seeds • Rhubarb 	DAIRY <p>Avoid</p> <ul style="list-style-type: none"> • Low-Fat & Fat-Free Dairy <p>Dairy</p> <ul style="list-style-type: none"> • Butter • Eggs • Ghee • Heavy Cream • Full-Fat Cheeses • Soft Cheeses • Sour Cream • Unsweetened Greek Yogurt • Plain Yogurt 	ALCOHOL <ul style="list-style-type: none"> • Brandy • Gin • Rum • Tequila • Vodka • Whiskey
			SWEETS & SNACKS <ul style="list-style-type: none"> • Dark Chocolate • Diet Sodas • Erythritol • Honey • Sugar-Free Jello • Stevia 	
FRUIT <ul style="list-style-type: none"> • Avocado • Berries • Coconut • Lime • Lemon • Olives • Rhubarb 				

ADVANTAGES OF A LOW-CARB DIET FOR HUNGER

Low-carb diets increase satiety due to the balanced blood sugar levels they promote.

- Unlike diets high in carbohydrate, blood sugar and insulin spikes throughout the day are kept to a minimum.

ADVANTAGES OF A LOW-CARB DIET FOR THE HEART

Low-carb diets have a beneficial impact on a whole host of heart disease risk factors.

- Specifically, they reduce triglycerides (a major risk factor for cardiovascular disease) and increase the concentrations of HDL (known as the “good” cholesterol).
- Additionally, they lead to reduced blood sugar, insulin, and inflammation in the body; all of these things can be damaging to the heart.
- As well as this, another big advantage is weight loss, since heavier weights and obesity increase cardiovascular risk.



Health Benefits of Low Carb Diets

- Scientific studies of varying quality and duration show low-carb diets (generally less than 100 grams of carbohydrates per day) and ketogenic diets (less than 20-30 grams of carbohydrates per day) provide numerous health benefits including:
 - Effective weight loss
 - Treatment of diabetes
 - Lowered blood pressure
 - Treatment of fatty liver
 - Increased high-density lipoprotein (HDL) cholesterol and reduced triglycerides
 - And more.....

Pre-existing Diabetes or Blood pressure medication

- If you are already on diabetes medications, it is possible that the dose requirements may substantially change to prevent hypoglycemia. Insulin is the obvious example but there are others such as SGLT-2 inhibitors. In contrast, metformin is safe in the context of a low-carb diet.
- It is important that you partner with your primary care provider or diabetic educator and let them know of your decision and seek advice on monitoring blood glucose and potential medication changes.

Pre-existing High Blood Pressure

- In addition, low-carb diets can help lower blood pressure.
- If you are on blood pressure medications, make sure to monitor your blood pressure at home. Watch for symptoms of hypotension such as dizziness, feeling weak, or feeling faint. Please call my office or reach out to your primary care physician if you experience these symptoms.

HOW DO I FOLLOW A LOW-CARB DIET?

At its most basic, the low carb diet (or LCHF: low-carb high-fat) means eating plenty of healthy animal foods as well as nutrient-dense plant foods.

- Stay away from processed foods. If it comes in a box or bag and has an expiration date you probably don't want it. Throw them away.
- Look at spinach or an avocado; they are full of nutrients yet extremely low in digestible carbohydrates (which turn to sugar in the body). By the same token, if we examine bread or rice then sure, they do have a few nutrients, but not so many. Added to that, they also contain a significant amount of digestible carbohydrate which raises your blood sugars incredibly.

Looking at the picture, see that the three most nutrient-dense food groups are encouraged.



HOW MANY CARBS SHOULD I EAT ON A LOW-CARB DIET?

If you are just starting a low-carb diet, this can be confusing.

- In brief, one man's low-carb diet is another man's high-carb diet.
- By that, I just mean that there is no one-size-fits-all amount of carbohydrate you need to eat.
- However, to get the best advantages of a low-carb diet, it's better to aim at the lower end of the scale.

Some easy targets to follow are:

- Moderate low-carb – 100g net carbs or below each day
- Very Low-carb – 50g net carbs per day
- Keto – 20g net carbs per day, or less

Personally, I usually stick to somewhere between 30g and 50g Net Carbs per day. However, more than half of the total tends to come from fibrous plant foods and some dark chocolate.

Strategies to getting started on a low carb life

- Eliminate refined sugar, grains and seed oils (see bottom chart)
- Count your Carbs
 - A good app for tracking carbs is chronometer
 - A low-carb diet can provide anywhere from 30-100 grams of net carbs per day, depending how strict you want or need to be
 - If you have diabetes or want to lose weight, aim for less than 50 grams of net carbs most days in order to maximize results

HOW TO CALCULATE *Net Carbs*

Nutrition Facts		
Serving Size 1/2 Cup (64g)		
Servings Per Container 4		
Amount Per Serving		% Daily Values*
Calories 70	Calories from Fat 20	
Total Fat 2g		3%
Saturated Fat 1g		5%
Trans Fat 0g		
Cholesterol 45mg		15%
Sodium 110mg		5%
Total Carbohydrate 14g		5%
Dietary Fiber 3g		12%
Sugars 6g		
Sugar Alcohol 5g		
Protein 5g		10%
Vitamin A 2%	Vitamin C 0%	
Calcium 10%	Iron 2%	

*Percent Daily Values are based on a 2,000 calorie diet.

Take Total Carbs: 14 g

Subtract Dietary Fiber 3g

Subtract Sugar Alcohol 5g

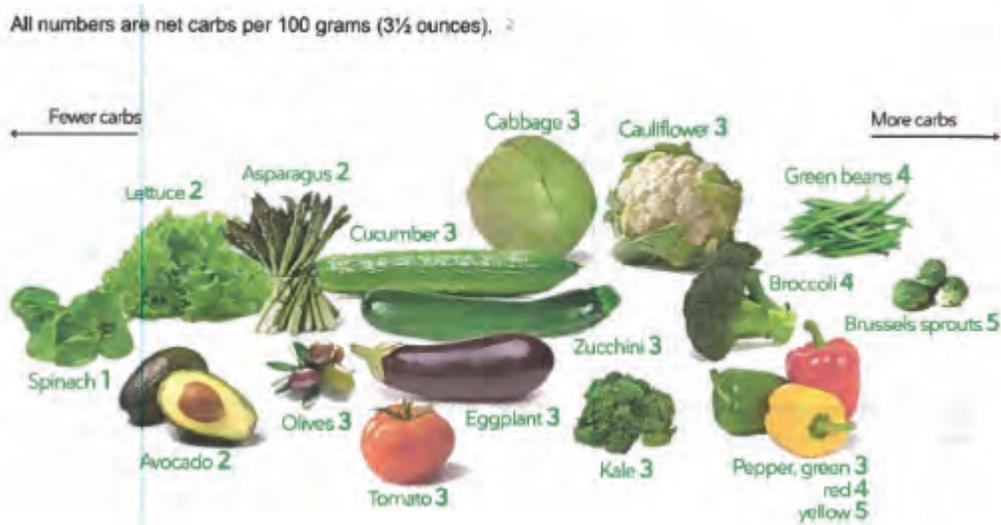
Your Total Net Carbs = 6g

VEGETABLES ARE YOUR BEST SOURCE OF CARBS

What vegetables are low carb?

- Vegetables growing above ground are usually low carb and may be eaten freely
- Vegetables growing below ground usually contain more carbs, so you should be more careful with them (especially potatoes)
- Like any rule, it's not perfect, so have a look below

Above Ground



Below Ground



All numbers represent percent of net carbohydrates. ³ This means that a hundred grams (3½ ounces) – the weight of an average tomato – of any vegetable will contain this number of grams of carbs.

Vegetables with less than 5 percent carbs may be eaten relatively freely. ⁴ If you're on a not-too-strict low-carb diet (more than 20 grams per day), you can probably eat all you want of all these low-carb vegetables.

If you're on a keto low-carb diet (below 20 grams a day), you may need to be a bit careful with some of the vegetables. You should probably be especially careful with bell peppers or tomatoes – these carbs quickly add up towards the 20 grams-a-day limit. Just one medium-sized bell pepper may contain 4-7 grams of digestible carbs.

My Top 10 Vegetables



Here are ten great low-carb vegetables, tasty and rich in nutrients but with very few carbs. ⁵ We've attempted to sort them by how popular and useful they are in low-carb cooking. ⁶ All numbers are net carbs per 100 grams (3½ ounces). ⁷

1. **Cauliflower** – 3 g. Perhaps the most classic and iconic of all low-carb vegetables. The base of cauliflower rice and cauliflower mash. Check out our top cauliflower recipes >
2. **Cabbage** – 3 g. Another great low-carb vegetable. Who doesn't love butter-fried green cabbage or the simply amazing Asian cabbage stir-fry? ⁸ For more, here are our top cabbage recipes >
3. **Avocado** – 2 g. Not just low carb, but also full of nutritious fat. ⁹ Technically a fruit, but most people likely think of it as a vegetable. Avocado can be eaten in all kinds of ways, including on its own, in salads, or it can be used to make guacamole. But that's just the start, here are other awesome avocado recipes >
4. **Broccoli** – 4 g. Another great option that can replace pasta, rice or potatoes. Just fry it in butter or add some cheese for great-tasting side dishes. More recipes >
5. **Zucchini** – 3 g. Try our zucchini fries or zucchini chips. Zucchini can also be used to make low-carb pasta, like in this low-carbonara. More recipes >

Refined grains and sugar



Wheat is not considered a vegetable, it is a grain. ** And anything made with wheat flour contains lots of rapidly digested carbs. ** Avoid this when on a low-carb diet. When it comes to their effect on blood sugar, whole-grain products have a slightly slower impact than refined grains, but the difference is surprisingly small.

Bread, pasta, rice, cookies etc. are not vegetables, and they are full of carbohydrates.

Top 10 low-carb fruits



Let's say you occasionally want to eat a fruit (or some berries) while still staying relatively low carb. What fruit would be the best choice?

Below, you'll find the best options, ranked by grams of net carbs. 🍌 The lowest-carbs options are at the top.

1. **Raspberries** - Half a cup (60 grams) contains **3** grams of carbs.
2. **Blackberries** - Half a cup (70 grams) contains **4** grams of carbs.
3. **Strawberries** - Eight medium-sized (100 grams) contains **6** grams of carbs.
4. **Plum** - One medium-sized (65 grams) contains **7** grams of carbs.
5. **Clementine** - One medium-sized (75 grams) contains **8** grams of carbs.
6. **Kiwi** - One medium-sized (70 grams) contains **8** grams of carbs.
7. **Cherries** - Half a cup (75 grams or about 12 cherries) contains **8** grams of carbs.
8. **Blueberries** - Half a cup (75 grams) contains **9** grams of carbs.
9. **Cantaloupe** (melon) - One cup (160 grams) contains **11** grams of carbs.
10. **Peach** - One medium-sized (150 grams) contains **13** grams of carbs.

LET'S GO OUT TO EAT!

KETO DIET + LOW CARB EATING OUT GUIDE

MEXICAN FOOD

- Chicken, Steak or Shrimp Fajita Mix (on lettuce w/ sour cream & guacamole or sliced avocado) - no tortillas
- Chipotle salads or bowls (Keep it Simple: meat, lettuce, cheese, sour cream, green salsa & guac!)
- Taco salad (minus the shell)
- Ceviche
- Carne Asada
- Chile Verde

CHINESE FOOD

- Egg-drop soup
- Hot and Sour Soup
- Pork spare ribs (No sauce)
- Roasted duck

ITALIAN FOOD

- Antipasto Salad
- Any meat w/ marsala sauce, mostly veal or chicken
- Pizza without the crust- peel the cheese and toppings off
- Steaks/Lobster

MEDITERRANEAN FOOD

- Kebabs - w/ salad (Mayo is the lowest carb dressing)
- Greek Salad
- Baba Ganchush (skip the pita)
- Gyro meat with salad (NO pita bread)
- Grilled Veggies with salad
- Grilled chicken with salad
- Grilled fish with salad
- Grilled Lamb with salad
- Tahini is a good sauce / dressing

JAPANESE FOOD

- Sashimi
- Tenyaku (Beware of sugary sauces)
- Miso soup

BURGER JOINT FOOD

- NO bun
- NO ketchup
- Beware of breaded products
- Eat a lettuce wrapped burger.
- Or eat patty alongside a salad.
- NO fries. Most places offer salad as an alternative.

INDIAN FOOD

- NO: beans/legumes, rice, naan, chapatis, bread, samosas or potatoes.
- GOOD CHOICES:
 - Tandoori chicken
 - saag paneer or meat
 - chicken vindaloo
 - korma

THAI FOOD

- No Rice or Noodles
- Coconut curries (without the side of rice)
- Tom Yum or Tom Kha soups
- Beef/chicken/duck/fish larb
- Stir-fry type dishes (ask if the sauce has been sweetened)
- Some Thai salads (ask about the ingredients & dressing)

STEAK/SEAFOOD PLACE

- Steak
- Ribs without sauces
- Burger without buns (maybe lettuce wrap or side salad with patty)
- Salad with oil-based dressing
- All seafood is acceptable minus breading/batter
- Mussels in moderation as they are quite high in carbs

SANDWICH SHOP

- Eat sandwich as a salad instead. Most sandwich shops offer their sandwiches as a salad these days or just order a salad.
- Ask for an oil & vinegar based dressing.

FOR THE ULTIMATE EATING OUT GUIDE AND KETO FRIENDLY FAST FOOD OPTIONS, VISIT:
WWW.HEALTHYHAPPYSMART.COM

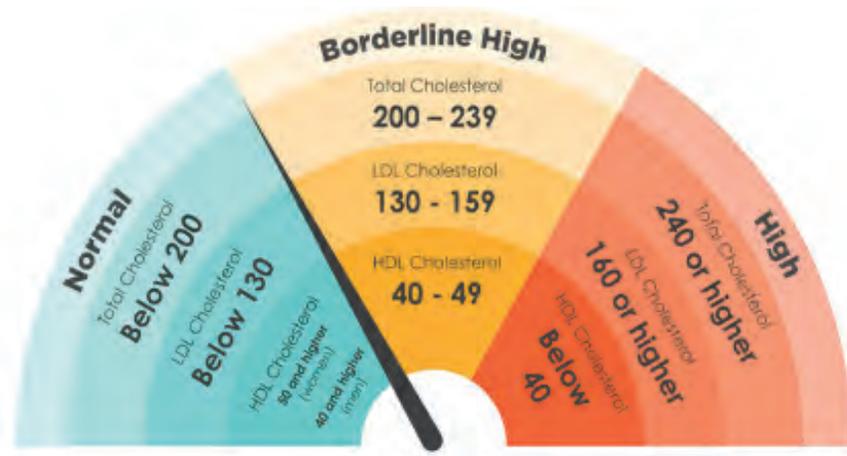
Employ Substitutions

- If breakfast is usually cereal, juice, and toast then try eggs, bacon, and coffee (with heavy cream, if wanted) instead.
- If lunch is a sandwich with deli meat, how about salad with sliced chicken or steak and plenty of extra virgin olive oil as the dressing instead?
- If dinner is often a meat with a starch like pasta, potatoes, or rice, try having as much meat as you like and fill the rest of the plate with green vegetables or salad. You can even try adding cauliflower rice, zucchini noodles, or other starch substitutions.
- If between-meal snacks or after-meal desserts are stumbling blocks, I recommend eliminating the soft drinks, junk food, and sugary desserts and suggest drinking sugarless tea, coffee or water and snacking on nuts and cheese. Berries with unsweetened whipping cream or full fat yogurt can substitute for a sugary dessert.

What about all the naysayers?

The list below helps clear up some common misconceptions.

- Low-carb diets result in weight loss, but at the cost of increasing risk of heart disease
 - In brief, there are no moderate- or high-quality studies demonstrating that eating a whole-food, low-carb diet results in an increased risk of heart disease or early death.
- The amounts of fat allowed in a low-carb diet will raise LDL cholesterol levels
 - This is not true for the vast majority of individuals. Most studies show no significant change in LDL cholesterol, but rather the potentially beneficial effects of raising HDL, lowering triglycerides, and reducing more atherogenic small, dense LDL particles.
 - In fact, one study that looked at a 10-year atherosclerotic cardiovascular disease (ASCVD) risk calculation for participants showed a decreased cardiovascular risk on a low-carb diet.
 - However, there is a small subset of people, termed hyper-responders, whose LDL increases significantly on a LCHF diet. It is not known exactly how big this population is. Although most medical practitioners immediately assume this is harmful, we do not have definitive outcome data in this specific population.



Cholesterol Levels

Misconceptions Continued ...

- The meat and fat on a low-carb diet increase the risk of cancer
 - In brief, the data linking fat to cancer risk is inconsistent, incomplete, and unreliable.
 - Randomized controlled trials show no association between red meat and cancer risk.
- Whole grains are a necessary part of a healthy diet
 - There is no such thing as an essential carbohydrate.
 - It is clear, therefore, that whole grains are not a requirement for survival.
 - There are no studies comparing whole grains to a grain-free diet composed of whole foods.
- Low carb diets are deficient in fiber
 - Many low-carb and ketogenic diets contain nearly unrestricted amounts of above-ground vegetables such as broccoli, spinach, cauliflower, Brussels sprouts, green beans, bell peppers, zucchini, and more, all of which are high in fiber.
 - Last, there is no convincing evidence that alterations in gut microbiome from a low carb diet have any implications for future health.
 - Once again, the science is muddled by subjects eating a lower-quality diet, high in processed foods
- Low carb diets are too restrictive
 - Does eating practically all the veggies, meat, cheese, eggs, poultry, fish, nuts, and seeds you want sound restrictive?
- It is too difficult to maintain long term
 - No sugar coating here, maintaining ANY lifestyle change is not easy
 - Despite the difficulty of long-term behavior change, some studies demonstrate excellent compliance with a ketogenic diet.
 - The nonrandomized trial performed by Virta Health showed an outstanding one-year compliance rate of 83%. It shows that with good support, people who choose low-carb diets can thrive.
- A low carb high fat diet is bad for the environment
 - In short, there is more than one way to be environmentally friendly and avoiding animal sourced foods isn't necessarily the best.

Lastly, some of my favorite resources include:

- Website: [Dietdoctor.com](https://www.dietdoctor.com)
- Good book: *Ketotarian* by Will Cole
- Favorite trail blazers: Eric Westman, Zoe Harcombe, Jason Fung, Jeffrey Gerber, Ivor Cummins, Tim Noakes, Ted Naiman, Peter Attia, William Davis