



The **EAT**Better Strategy Guide



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EAT Better

Your Guide to Eating Better

Why is nutrition so hard to figure out?

Why is it so confusing to know how to eat well and be healthy?

When did eating become nutrition?

Our EAT Better Strategy is designed to help you eat better—it is not about diets.

**Simply put,
diets do
not work.**

Diets are temporary, highly restrictive eating programs to lose weight and are unfortunately damaging exercises in futility. (Diets are also about selling books!)

- Low fat/High carb
- Keto
- Low carb/High fat
- Zone
- Atkins
- Modified Atkins
- Paleo
- South Beach
- the list goes on

These dietary approaches differ dramatically in their macronutrient breakdown yet hold that their system is the 'one' right way towards weight loss and better health.

Inherent in the 'diet' approach is a reductionist mindset that the precise nutrient composition of one's diet matters most.

Since we cannot see nutrients, we as consumers have to rely on experts to tell us what to eat. These experts have wildly different views that lead to a dogmatic, almost religious element to food advice that divides food into good and bad, demonizing some foods and elevating others to superfood status.

Michael Pollan calls this nutritionism, a term he popularized from the work of Gyorgy Scrinis.

Nutritionism is an ideology, not science—a view that specific nutrients in food determine whether a food is healthy or not. "This focus on nutrients has come to dominate, to undermine, and to replace other ways of engaging with food and of contextualizing the relationship between food and the body," wrote Scinis in 2008. This ideology has even come to overtake nutritional science and government advice, easily co-opted by industry to market questionable food as healthy. "Twinkies now with Omega-3!"

Nutritionism allows the food industry to market highly processed foods as healthy when they add specific nutrients back to the product and market accordingly—think of vitamin-fortified cereals.

Nutritionism may even be one of the causes of the current rise of diabetes, obesity and chronic disease we see in the Western world. Specifically, the recommendations in the late 1970s and early 1980s for consumers to lower their intake of saturated fats led to profound shifts in Western diets with refined carbohydrates replacing fat in industrially produced food. This shift is thought by some to be the single most significant causal factor responsible for the epidemic of obesity in the world today.

Pollan counters nutritionism with his simple advice (that we have borrowed):



**Eat food,
not too much,
mostly plants.**

This simple advice is the antidote to nutritionism; a holistic counter strategy focused on whole foods.



1 Build Your Meals Around a Healthy Protein Package

When you eat food, digestion breaks it into three macronutrients:

- Fats
- Carbohydrates
- Protein

Your body powers itself with fat and carbohydrates for energy, using two systems to manage the use and storage of these fuels.

Dietary protein is predominantly used for structure and function and not for fuel. Your

body's most important functional molecules—hormones, neurotransmitters, enzymes and antibodies— are all proteins, as are your structural components—muscle, collagen, connective tissue, and even cartilage and bone.

When we eat proteins, digestion breaks them into amino acids—essentially the building blocks for new proteins. These amino acids are absorbed into the bloodstream and distributed around the body to tissues that need them.

Your body requires 20 amino acids to create all the proteins needed for life. Nine are essential, meaning we must get them from our diets.

- Histidine
- Isoleucine
- Leucine
- Lysine
- Methionine
- Phenylalanine
- Threonine
- Tryptophan
- Valine

And another four are conditionally essential:

- Arginine
- Cysteine
- Glutamine
- Tyrosine

Your body continuously recycles protein, degrading them to amino acids and re-synthesizing new proteins.

The body is very good at reutilizing amino acids but is not fully efficient as some amino acids become damaged and broken down. As a result, we always need to eat some new protein just to maintain our existing proteins.

Unlike fats and carbohydrates, we cannot store excess protein, so we depend on our diets to provide enough protein for growth and maintenance.

If you eat protein beyond your body's requirement or your muscles' ability to absorb it, you degrade it. The amino groups are broken down and excreted as urea, creatinine, uric acid, or other nitrogenous metabolites. The remaining carbon skeleton (a keto acid) is utilized as a fuel in the liver, converted into glucose or, more likely, stored as fat.

**If you eat
excess calories,
even from protein,
your body stores
it as fat!**

That's right—if you eat excess calories, even from protein, your body stores it as fat!

The fate of excess protein may seem surprising given the popularity of high protein diets for weight loss, but protein has three other attributes that explain its benefit in a weight loss diet.

First, of the macronutrients, protein is the most satiating. Meals with high protein feel more filling and decrease hunger for a more extended period, and as a result, you will consume fewer calories overall.

Second, because protein has powerful satiating qualities, overeating protein is difficult.



The third attribute of protein that helps with weight management is the inefficiency of storing protein as fat. Turning protein into fat consumes about a third of the energy in the protein.

During fasting, a small percentage of protein is converted to glucose to maintain blood sugar levels. This process, gluconeogenesis, runs at a relatively constant rate throughout the day using multiple substrates, including lactate (released from muscle glycogen) and glycerol (from fat breakdown). The amount of protein required for this is minimal, with fasting periods < 24 hours.

Summary

- Daily protein intake is essential for the growth and maintenance of your body's structural and functional components.
- Protein is only a significant energy source if you overeat, in which case it turns into fat.
- Eating extra protein will help make you feel full sooner, potentially resulting in fewer overall calories consumed.

How much protein do you need a day?

TLDR: 30-50g per meal across 3 meals per day.

The details of our recommendation are more complex.

The official recommended Daily Allowance (RDA) for protein represents the amount of dietary protein our body needs for repair and maintenance—the amount of protein lost daily as we recycle our amino acids.

The RDA for protein is 0.8g/kg or 0.36g/lb per day.

Anything less than this will cause protein deficiency, forcing your body to break down muscle to supply new amino acids.


The RDA represents the absolute minimum protein intake required. It does not factor in activity and aging, contributing to increased muscle breakdown.

People in the 4+2 Diabetes Reversal Strategy will require more protein.

Newer guidelines, including those from the Academy of Nutrition and Dietetics, Dietitians of Canada, and the American College of Sports Medicine, also recommend much more.

The emerging consensus is that for people losing weight, over the age of 60, and meeting activity guidelines, the recommended intake of protein required to build and maintain muscle is

- 1.2 -1.6g/kg per day
- 0.5 - 0.7 g/lb per day



**Aim for
30-50g of
protein per meal
across 3 meals
per day.**



One challenge to this recommendation is that the amount of protein will seem daunting for people trying to lose weight who start at a higher BMI above 30.

We recommend that people with higher BMIs target the lower end of the range, while those with lower BMIs should aim for the total amount.

Getting enough protein is also complicated because, after age 25, your body only absorbs protein in a narrow range.

It takes about 25-30g of protein to send an adequate signal to the muscles to absorb it, but muscles can only absorb approximately 50 g of protein from any meal.

You must fulfill the recommended targets through multiple meals to meet your protein requirements.

Let's look at some examples to make this more clear:

To simplify this further, aim for 30-50g per meal. If your BMI is on the lower end of the range, go with 30g; on the higher end, go with 50 g, and in between, go with something in between.

(To translate this into foods, see our Healthy Protein Packages Infographic)

Your body is very good at sensing protein intake and does this independently of managing energy. One of the most common reasons for overeating is eating meals with insufficient protein intake. These meals do not generate enough satiation signals, so you stay hungry and eat until you get protein, even if the energy intake exceeds your energy requirements. If you are hungry within a few hours after a meal, look at how much protein you ate. Aim to increase the protein next time you have that meal.

Are there benefits to having more protein?

Protein plays a crucial role in facilitating the first phase of insulin release. This process swiftly releases pre-stored insulin to signal the liver to cease glucose production upon eating. This

Weight (lbs)	Weight (kg)	Suggested Target	Daily Protein Target	g/meal - assumes 3 meals
120 lbs	54.5 kg	1.6 g/kg	87 g	29 g
140 lbs	63.6 kg	1.6 g/kg	102 g	34 g
160 lbs	72.7 kg	1.5 g/kg	109 g	36 g
180 lbs	81.8 kg	1.4 g/kg	114.5 g	38 g
220 lbs	100 kg	1.3 g/kg	130 g	43 g
250 lbs	113.6 kg	1.2 g/kg	136 g	45 g
275+ lbs	125 kg	1.2 g/kg	163	50 g

rapid insulin response, triggered by an initial surge in blood glucose levels from ingested carbohydrates, occurs within minutes of a meal. In individuals with type 2 diabetes, however, this essential mechanism is impaired or absent due to the pancreas's diminished responsiveness to glucose elevations, leading to unchecked liver glucose production and significant post-meal blood glucose spikes.

Remarkably, protein intake can partially mitigate this issue in type 2 diabetes. Certain amino acids, found in most protein sources, can still stimulate a first-phase insulin release, aiding in more stable blood sugar regulation. A notable study highlighted the potential benefits of incorporating protein into the diet, showing that a 15g whey protein supplement taken before meals significantly reduced participants' 24-hour average blood glucose levels by 0.6 mmol/L, as monitored by continuous glucose monitoring systems. This reduction could translate to a 1% decrease in HbA1c levels over four months.

While relying solely on supplemental protein before every meal may not be a practical long-term strategy, strategically consuming protein at the start offers a feasible approach to harnessing these blood sugar-stabilizing benefits. This dietary strategy could provide an effective means for individuals with type 2 diabetes to improve their glucose control and overall metabolic health.

As we have reviewed, extra dietary protein above and beyond our maintenance, growth and repair requirements will predominantly get converted to fat. While this conversion consumes 33% of the caloric energy, you still increase your fat by overeating protein if your overall caloric intake is excessive.

However, the extra protein may increase your satiation and result in the overall consumption of fewer calories, which will support weight loss or maintenance.

The most important meal to ensure you get enough protein is your first meal of the day: break your fast with a meal containing at least 30g of protein. This protein signals that you have nutrients, increasing metabolic rate and decreasing ghrelin (your hunger hormone).

If you consume more calories from protein than required, you must be careful and consider the package that comes with the protein. What fat, carbohydrate, vitamins, minerals, and other nutrients accompany protein?

While lean meat, poultry, and dairy can be healthy choices, you should watch how much saturated fat you consume from these protein sources, especially if your LDL cholesterol is high.

Fatty fish such as salmon are rich in Omega-3 fats that are part of a healthy fat balance.

Plant-based proteins from beans, legumes and pulses are excellent as they have lots of fibre.

As you prioritize protein, consider what else comes within the protein package.

Is there harm from overeating protein?

For most people, there is no harm in overeating protein.

If you have kidney failure you should seek guidance from your nephrologist to understand what protein intake you can tolerate safely.

Are there differences in protein quality between plants and animal sources?

Advocates of eating meat point out that animal sources are “complete” proteins, meaning that they contain all essential amino acids and fully meet protein requirements, gram for gram.

The problem with this line of thinking is that plants contain the same 20 amino acids. The origin of the amino acids in animals is originally from plants. Given that both animal and plant proteins break down into amino acids before absorption, there is NO fundamental difference between eating meat and eating a variety of vegetable sources of protein. (For more on this, read Chana Davis’s excellent blog post: [Busting the Myth of Incomplete Plant-Based Proteins](#).)

One factor favouring plant protein over meat is that the plant packages have more

micronutrients and fibre without the potentially harmful saturated fats found in meat.

What about protein powder?

As you are losing weight, you may find that you do not have the appetite for three full meals and find it easier to make a smoothie with protein powder. Using a high-quality protein powder will allow you to create a healthy smoothie with enough protein. Check the LifestyleRx Community for some smoothie recipes to inspire you.

Summary

- Aim for 30-50 g of protein per meal across three meals daily.
- Build all your meals around quality whole-food protein packages—this will meet your daily protein needs and provide excellent satiation.
- Prioritize protein packages with fibre to maximize satiation—look at the bolded protein package examples.

20 Healthy Whole Food Protein Packages

FISH



Salmon
per 100g (3.5 oz)
Protein 32g
Fibre 0g



Tuna
per 100g (3.5 oz)
Protein 28g
Fibre 0g

MEAT



Lean Sirloin Steak
per 100g (3.5 oz)
Protein 29g
Fibre 0g



Chicken Breast
per 100g (3.5 oz)
Protein 31.5g
Fibre 0g

SOY PROTEINS



Tofu
per 100g (3.5 oz)
Protein 10g
Fibre 1g



Tempeh
per 100g (3.5 oz)
Protein 20g
Fibre 9g

LEGUMES



Black Beans
per cup
Protein 7g
Fibre 15g



Lentils
per cup
Protein 18g
Fibre 16g



Chickpeas
per cup
Protein 15g
Fibre 13g

DAIRY



Greek Yogurt
per 250ml (1 cup)
Protein 23g
Fibre 0g



Cottage Cheese
per 250ml (1 cup)
Protein 28g
Fibre 0g



Eggs
per egg
Protein 6g
Fibre 0g

GRAINS



Quinoa
per 250ml (1 cup)
Protein 8g
Fibre 5g



Oats
per 250ml (1 cup)
Protein 11g
Fibre 8g

NUTS



Almonds
per 30g (3 tbsp)
Protein 6g
Fibre 3.5g



Peanut Butter, Chunky
per 30g (2 tbsp)
Protein 7g
Fibre 2.6g



Pumpkin Seeds
per 30g (3 tbsp)
Protein 5g
Fibre 5g



Hemp Hearts
per 30g (3 tbsp)
Protein 11g
Fibre 1g

VEGGIES



Spinach
per 100g (3 cups)
Protein 3g
Fibre 2.4g



Broccoli
per 100g (3 cups)
Protein 3g
Fibre 2.4g

Putting It All Together

Aim for 30-50g of protein per meal. Adjust your portions according to your personal target. If you are still hungry, go back for more protein.

Breakfast

Greek Yogurt - 23g
Hemp Hearts - 11g
Almonds - 6g

OR

2 eggs - 12g
Tofu - 10g
Black Beans - 7g
Spinach - 3g

Lunch

Tuna - 28g
Spinach - 3g
Pumpkin Seeds - 5g

OR

Tempeh - 20g
Lentils - 18g
Broccoli - 3g

Dinner

Salmon - 32g
Quinoa - 8g

Getting enough protein simply means mixing and matching healthy protein packages you enjoy.





2 Load Up on Veggies, Fruits, Legumes, and Whole Grains

Following the first step, “Build Your Meals Around a Healthy Protein Package,” your next step in thinking about healthy meals is to load up on veggies, fruits, legumes and whole grains.

I know, this might sound like your mother. “Eat your veggies—they are really good for you,” but there are some solid reasons why eating more fruits, veggies, legumes and whole grains makes good sense.

Here are 7 reasons why loading up on veggies, fruits, legumes, and whole grains makes sense:

1. They are delicious

Veggies provide an unlimited array of flavours and textures—cooked right; they are simply delicious. Depending on how you classify them, there are 8 or 9 different veggie categories, hundreds of individual veggies to



choose from, and many different preparations and infinite combinations. Combine a bit of kitchen skill with an abundance of veggies, and you will never be bored.

2. They fill you up

Veggies are full of water and fibre, providing your meal volume with minimal calories. Their bulk triggers stretch receptors in the stomach and intestine to signal satiation, while the fibre slows digestion allowing you to feel full longer. Being full does more than willpower when it comes to weight loss!

3. They provide sustained energy

Food provides the energy we need to live primarily from the breakdown of carbohydrates and fats. (We eat proteins mainly for growth and repair of our own proteins). For the most part, veggies, fruits, legumes and whole grains take time to digest, are slowly absorbed and provide sustained energy. This feeling of sustained energy translates into less hunger, less craving, and less snacking.

4. Some veggies are essentially free

Some veggies contain so few calories that the energy required for digestion is almost the same as their energy content. These veggies provide us with flavour and nutrition and make sense to fill up on. Some examples: green leafy veggies, celery, cucumbers, tomatoes, snap peas, carrots, broccoli, cauliflower, asparagus, and Brussels sprouts. Still feeling hungry at dinner—add more veg!

5. They are loaded with micronutrients

Vegetables are excellent micronutrient sources—vitamins and minerals essential growth and our body's key bio functions: energy production, cellular protection, immunity, inflammation & anti-inflammation, blood clotting, stress response & recovery, bone and muscle strength, neurological health, vision and more. Veggies are nature's supplements, so save your money and get your vitamins, minerals and phytonutrients in a package your body already expects.

6. They feed our microbiome

While there are ten trillion cells in our bodies, we also host approximately ten times that many microbes (bacteria, fungi, protozoa and viruses) on or inside our bodies. Bacteria in our gut not only help us digest food, but they also help regulate our immune system, modulate our energy metabolism, including nutrient absorption and fat storage, protect against other bacteria that cause disease, and produce vitamins including B vitamins—B12, thiamine and riboflavin, and Vitamin K. The more we learn about the microbiome, the more evidence there is that feeding them properly—with adequate fibre (at least 30 g per day)—is one of the keys to good health.

7. And finally they are really good for you

Mom was right! Fruits, veggies, legumes and whole grains keep you healthy. There is overwhelming evidence to support their role in decreasing disease risk and improving health. Diets rich in fruits and veggies can lower BP, reduce cardiovascular disease, prevent some types of cancer, decrease the risk of diabetes, help manage weight, preventing obesity and even help your vision.



A good rule of thumb:
fill half your plate
with veggies.

Convinced you need to improve your intake of veggies, fruits, legumes and whole grains but not sure where to start?

Here are 12 quick tips to get you started:

1. Have a fruit bowl

Place it where you see it every time you enter the kitchen. Stock it with the fruit you love—washed and ready to eat. Do the same with berries in the fridge. Feeling like something sweet—grab some fruit.

2. Eat the rainbow

On most days, try and eat various coloured veg—green leafy, yellow, orange, red fruits and veggies, dark beans and legumes. The more colour, the better!

3. Try new veggies

Every week look to try something new from the greengrocer that you can chop up, add to a salad, snack on, or prepare with your nightly meal.

4. Load up your freezer with frozen veg

Frozen veg are flash-frozen at peak freshness and maintain all of their nutrition—they are also handy as a fallback when you haven't got to the grocery store. Keep several bags of your favourites—spinach, mixed veg, broccoli, artichoke hearts, etc.)

5. Double up on veggies with your nightly meal

Add a couple of veggie sides to each meal—pair something familiar with something new—look for new ways to prepare your veg.

6. Prepare a whole week's worth of vegetables on the weekend

Wash, clean and chop up your veg in one

session—store in the fridge so that dinners are even easier to get on the table when the rush of the week begins.

7. Substitute raw veggies for crackers or chips

Take some of your chopped veg (carrots, peppers, cucumber, broccoli, cauliflower, etc.) and serve with a healthy and tasty dip—like hummus or baba ghanoush.

8. Use green leafy veg in place of bread or wraps

Collards, kale, lettuce all can work well. Not only do you get more greens, but you also eliminate some refined carbs!

9. Up your whole grain game

Ditch the white rice—shift to brown rice, wild rice. Try other whole grains that deliver their

energy more slowly—quinoa, bulgar, spelt, amaranth, and don't forget oats.

10. Eat a salad at every meal

Be imaginative or keep it simple. Make having a salad a default option for every meal.

11. Eat more veggie soup

Always welcome on a cold afternoon or night. Soups are a great way to load up on veggies, and studies show people eat fewer calories when they eat soup. Remember to have a healthy protein package—think beans or legumes in the soup. Thicken with canned pumpkin or squash.

12. Have more plant-based meals

Try some new plant-based recipes—check out some of the recipes on our website: [“Recipes We Love.”](#)



Top 10 Foods Highest in Fibre

30g of Fibre = 100% of the Daily Value (%DV)



Navy Beans

63% DV (19g) fibre
per cup (182g)
35% DV (10g)
per 100 grams (3.5 oz)



Collard Greens

27% DV (8g) fibre
per cup cooked (190g)
14% DV (4g)
per 100 grams (3.5 oz)



Avocados

43% DV (13g) fibre
per avocado (201g)
22% DV (6g)
per 100 grams (3.5 oz)



Broccoli

17% DV (5g) fibre
per cup cooked (156g)
11% DV (3g)
per 100 grams (3.5 oz)



Chia Seeds

33% DV (10g) fibre
per oz (2 tbsp) (28g)
119% DV (36g)
per 100 grams (3.5 oz)



Steel Cut Oats

13% DV (4g) fibre
per cup (45g)
30% DV (9g)
per 100 grams (3.5 oz)



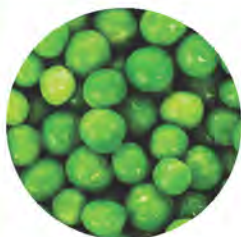
Acorn Squash

30% DV (9g) fibre
per cup cooked (205g)
15% DV (4g)
per 100 grams (3.5 oz)



Oranges

13% DV (4g) fibre
per cup (180g)
7% DV (2g)
per 100 grams (3.5 oz)



Green Peas

30% DV (9g) fibre
per cup cooked (160g)
19% DV (6g)
per 100 grams (3.5 oz)



Sweet Potatoes

13% DV (4g) fibre
per cup cooked (133g)
10% DV (3g)
per 100 grams (3.5 oz)

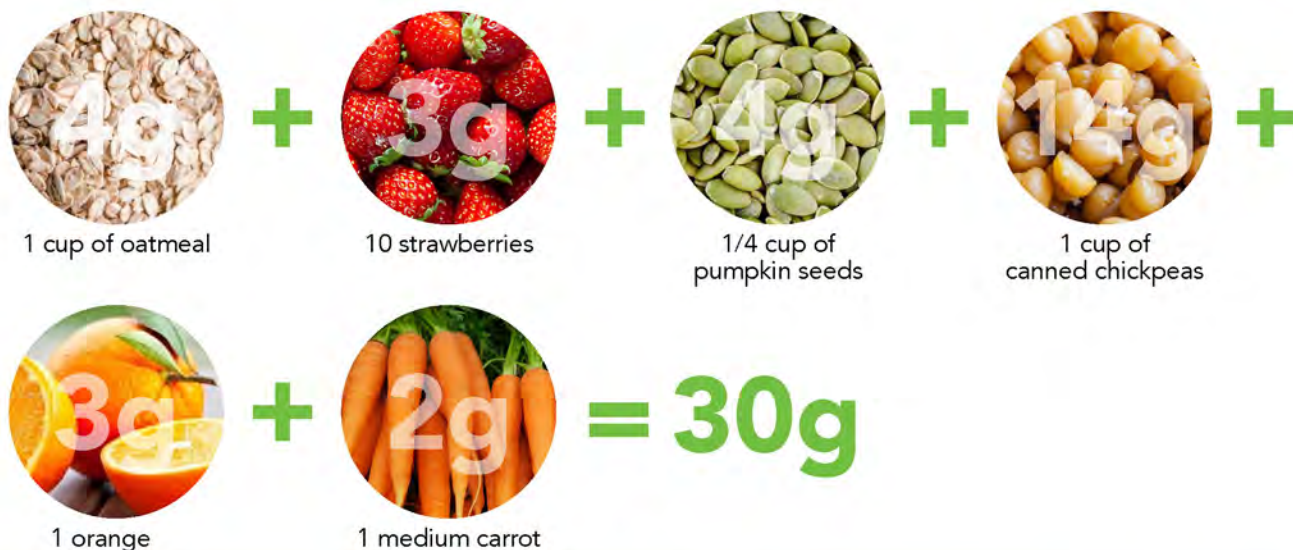


Here's what 30g of FIBRE looks like

EXAMPLE 1



EXAMPLE 2



EXAMPLE 3





3 Balance Your Meals with Healthy Fats

Healthy fats help with satiation.

Most people find fats confusing.

They are technically challenging to understand, let alone keep straight:

- Unsaturated vs. Saturated
- Poly vs. Mono Unsaturated
- Omega 3's vs. 6's

And there is so much conflicting 'information':

- All fats are bad
- Some fats are bad
- All fats are good

Here is the real skinny on healthy fat, a way to cut through this confusion.

Fats are an essential part of what you eat. They are the most energy-dense food, providing taste and satiation to your meals.

Fats also make hormones, modulate your immunity, support your nervous system, transport fat-soluble vitamins (A, D, E, and K), and form all of your cellular membranes.

Some fats are essential (meaning your body cannot make them, so you have to eat them); these are the Omega 3's and 6's.

After over 30 years of demonizing fat, [dietary recommendations now embrace the choice of healthy fats.](#)

So far, so good—but what are healthy fats?

This may be the most conflicted question in all of nutrition.

Here are some things that almost everyone agrees with:

- Monounsaturated sources of fat are healthy.
- Trans fats are unhealthy (in fact, they have been banned).
- Most people get too many Omega 6's and too few Omega 3's.
- Saturated fats increase LDL-cholesterol ("bad" cholesterol), and increased LDL-cholesterol levels increase the risk of heart disease and stroke.
- Dietary cholesterol is no longer considered a significant driver of LDL-cholesterol levels.
- Personalized recommendations should be adjusted based on a person's LDL-cholesterol level and cardiac risk, which physicians easily and routinely do.

Quick Technical Guide to Fats

Fats are one of the three macronutrients along with carbohydrates and proteins. They are stored in nature as triglycerides—3 fatty acids attached to a glycerol backbone. Each gram of fat yields nine calories of energy (vs four calories from a gram of carbohydrate or protein).

Fatty acids are made up of long chains of carbon and hydrogen atoms.

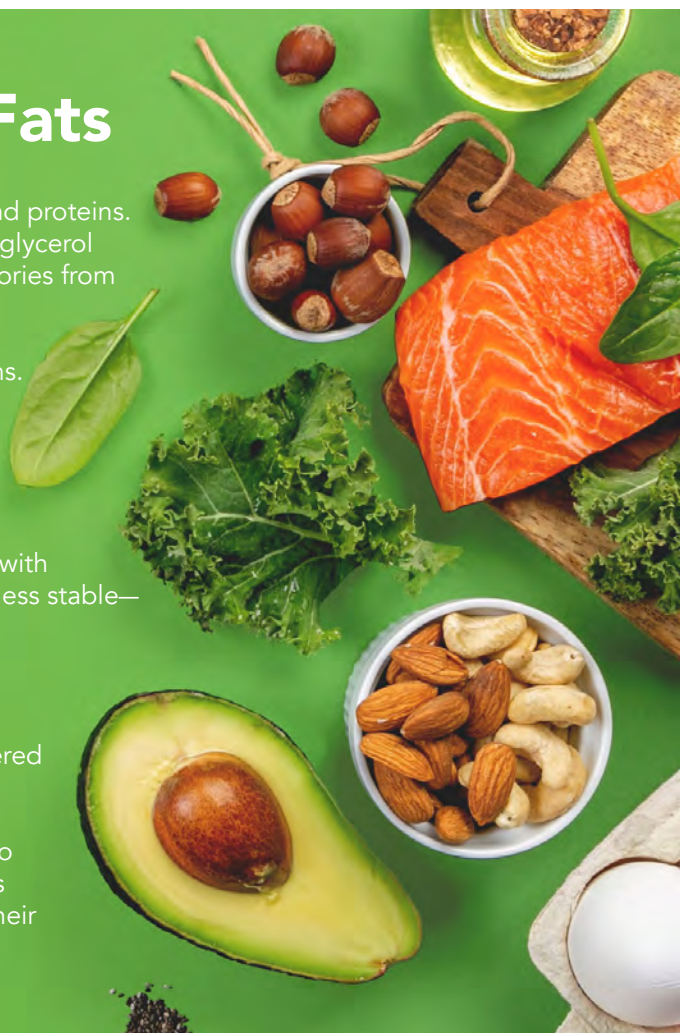
With **saturated** fats, each carbon in the chain is 'saturated' with two hydrogens, and there are no double bonds. These fats are straight, stable, and solid at room temperature

Unsaturated fats contain double bonds—they are not fully saturated with hydrogens. The double bond puts a kink in the fat and makes them less stable—they are liquid at room temperature.

Polyunsaturated fats have multiple double bond.

Omega 3's and Omega 6's are polyunsaturated fats that are considered essential—our bodies cannot make them, so we must eat them.

Trans fats are created in an industrial process called hydrogenation to turn liquid vegetable oils into solids with longer shelf lives. These fats are the most unhealthy, and both Canada and the US have banned their use in the past few years.



Here is our take—it is all about balance:

1. Balance your energy


Think about fats and carbs as providing your energy, with protein for repair and maintenance. If you have followed the guide so far, you have built your meals around healthy protein packages and filled out your plates with healthy veggies, fruits, legumes, and whole grains. Now balance out your meal with healthy fats for taste, satiation, and of course, to meet your energy needs.

High fat, low carb can work.

Low fat, high carb can work.

Medium fat, medium carb can work BUT

High fat, high carb won't work.



**Avoid foods
that are high in fat
and high in carbs.**

2. Balance your types of fats

More than half of your fat should be monounsaturated.

- Eat plenty of seeds, nuts, and nut butter (peanut, almond, etc.)
- Make olive and avocado oil your default cooking oils.
- Balance the remainder equally from:

- **Polyunsaturated fats**—including Omega 3 and Omega 6 essential fats
 - Enjoy fatty fish (salmon, trout, sardines, mackerel) unless, of course, you are vegetarian!
 - Avoid chemically processed seed & vegetable oils—choose expeller-pressed, cold-pressed, virgin, and extra virgin oils.
- **Saturated fats**
 - Healthy meats—choose lean cuts, grass-fed, organic if possible.
 - Full fat or partially skimmed dairy (choose grass-fed if affordable).
 - Coconut oil (choose virgin).

3. Balance your Omega 3's and 6's

- Be conscious of how much Omega 3's you are eating. From an evolutionary perspective, the ratio of Omega 6 to Omega 3 in the diet was 1:1. Since the introduction of cheap, industrial vegetable oils—corn, soybean, safflower, etc. into the Western diet—this ratio has sky-rocketed to 25:1. At these levels, Omega 6's act as pro-inflammatory agents and likely is a significant contributor to obesity, insulin resistance, and heart disease.
- Alpha-linolenic acid (ALA)—is the essential omega-3 fatty acid. ALA can be derived from plant sources—flax, chia seeds, green leafy vegetables, soybean oil, canola, and notably from fish.
- From ALA, we can synthesize the other important omega-3 fatty acids: eicosapentaenoic acid (EPA) and docosahexaenoic (DHA). There are some challenges to relying on ALA alone:
 - The efficiency of this conversion is low (especially in the presence of high Omega 6's).
 - The conversion is lower in men as compared to women.

- There is also a common significant loss of function genetic variation with the FADS enzyme that converts ALA to DHA and EPA.
- **As a result, you should obtain EPA and DHA from your diet (fish) or form supplementation.**
- Avoid fried foods—heating destabilizes the oil resulting in the formation of unhealthy trans fats. Deep frying fat in restaurants is reused repeatedly, further increasing the likelihood of eating harmful oxidation by-products.
- Avoid chemically processed oils—the top four vegetable oils consumed are soybean, canola, palm, and corn oil—all are refined, bleached, and deodorized. The refining process uses chemical solvents, usually hexane, to separate the oils. The heating process results in the creation of some trans fats.

Healthy fats come from whole food sources with minimal processing.

Think about the temperature you are cooking at—fats each have a smoke point at which they smoke and burn, yielding harmful free radicals and a burnt flavour. The more refined the oil, the higher the smoke point as the impurities that can burn at a lower temperature get removed.

- Avoid trans-fats (now banned from foods) due to the increased health risks. Everyone agrees these are not healthy and increase your risk of cardiovascular disease.
- Avoid ultra-processed food—these are more likely to be high in saturated fat or trans-fats from hydrogenated or partially hydrogenated polyunsaturated fats.
- Avoid any oil labelled as hydrogenated or partially hydrogenated.

Make avocado and olive oils your go-to's for cooking.

High Temp	Medium	Cold
Avocado Oil	Light Extra Virgin Oil	Flaxseed Oil
Clarified Butter (Ghee)	Coconut Oil	Hemp Seed Oil*
Grapeseed*	Butter	Pumpkin Seed Oil
Sesame*		Walnut Oil*

**for refined oils, choose products that explicitly state that they are cold-pressed or expeller-pressed. If the oil does not note how it was processed—assume that it was extracted using chemicals.*

Guide to Healthy Fats

Fats are an essential part of what you eat. They are the most energy-dense food, providing taste and satiation to your meals. Fats also make hormones, modulate your immunity, support your nervous system, transport fat-soluble vitamins (A, D, E, and K), and form all of your cellular membranes.

When it comes to fat, it is all about balance.

Fats balance carbohydrates for energy—be careful with foods that are high in both fats and carbohydrates. The ideal balance of fat is to **get more than half of your fat from monounsaturated sources** (olive oil, avocado, nuts, seeds, etc.) The remaining fat can equally from whole food sources of polyunsaturated (vegetables, fish) and saturated fats (lean meat, dairy, coconut oil). **Balance your Omegas**—focus on getting enough Omega 3's, especially the long-chain DHA and EPA from fish and supplements.

GREAT SOURCES OF HEALTHY FATS

Avocados, almonds, walnuts, cashews, hemp seeds, sunflower seeds, pecans, pumpkin seeds, nut butters, olives, tahini, chia seeds, salmon, sardines, flax seeds, egg yolks, coconuts, coconut milk, full-fat organic dairy.

HEALTHY FATS FOR COOKING

High Heat

Clarified butter or Ghee
Grapeseed oil
Avocado oil

Medium Heat

Coconut oil
Extra-virgin olive oil

Cold

Hemp seed oil
Pumpkin seed oil
Walnut oil
Hazelnut oil
Flaxseed oil





Ultra-processed

vs

Whole Foods



4 Avoid Ultra-processed Foods

If you were to design food to make you fat and sick, you would create ultra-processed food.

Ultra-processed food is defined as “formulations mostly of cheap industrial sources of dietary energy and nutrients plus additives, using a series of processes” and containing minimal whole foods (Monteiro et al., 2018).

In other words, food companies manufacture ultra-processed foods by combining substances extracted from whole foods with additives for taste, texture, shelf life and other factors that enhance the product’s profitability.

Strip the food of fibre, load it with sugar and fat, then add salt for taste, and you have food that will

- Be digested and absorbed rapidly (no fibre)
- Spike insulin (lots of refined carbs, quickly broken down to glucose)
- Stored quickly as fat (that's what insulin does - it stores glucose, protein and fat)

And in 2 hours, you will be hungry again—although, given the salt, you may have kept eating anyways!

**In other words,
ultra-processed foods
hack our appetite
control mechanisms,
making us fat
in the process.**

In 2019, [Dr. Kevin Hall demonstrated this effect of ultra-processed foods in a study showing that eating ultra-processed foods results in increased calories and weight gain.](#)

Hall took ten men and ten women into an in-patient metabolic ward where they were randomly assigned to receive an ultra-processed or unprocessed diet for 14 days followed by another 14 days on the other diet. The subjects were given three daily meals and could eat as much or as little as desired. The two diets matched total calories, energy density, macronutrients, fibre, sugar, and

sodium but differed widely in the percentage of calories derived from ultra-processed versus unprocessed foods.

Hall's study found that subjects ate over 500 calories a day more and gained about two pounds of fat in 14 days on the ultra-processed diet. The overeating was almost evenly divided between excess fat and excess carbohydrates, while protein intake was unchanged.

Not only did subjects eat more ultra-processed foods, but they also ate faster, and bloodwork showed the effects of this diet on essential appetite control hormones.

Compared to eating whole foods, subjects showed:

- Decreases in the appetite-suppressing hormone PYY
- Increases in hunger hormone ghrelin
- Increases in the storage hormone insulin

Along with:

- Increased glucose levels
- Increase insulin resistance—the process underlying Type II Diabetes

**Ultra-processed
foods make people
eat faster, eat more
and gain weight, while
altering critical appetite
and hunger hormones
and disrupting
insulin function.**

Now you may be thinking, “I get it—it’s junk food, but I don’t eat that much of it.”

But collectively, we do: 50% of the calories Canadians consume comes from ultra-processed foods!

A [recent review](#) found that increased ultra-processed food consumption correlates with higher risks of obesity, heart disease and stroke, diabetes, cancer, frailty, depression, and death.

There was no association between ultra-processed foods and beneficial health.

Compounding these ill-effects is the fact that the more ultra-processed the diet, the less whole foods consumed.

And eating lots of veggies, fruits, legumes, and whole grains has been associated with beneficial health outcomes.

So how do you recognize ultra-processed foods—here we turn to Michael Pollan’s food rules:

1. Don't eat anything your great-grandmother wouldn't recognize as food.
2. Don't eat anything with more than five ingredients or ingredients you can't pronounce.
3. Stay out of the middle of the supermarket; shop on the perimeter of the store. Real food tends to be on the outer edge of the store.
4. Don't eat anything that won't eventually rot.
5. Don't buy food where you buy your gasoline.



Almost **50%** of total calories consumed by Canadians are Ultra-processed

31% greater likelihood for **Obesity**
37% greater likelihood for **Diabetes**
60% greater likelihood for **Hypertension**

HOW ULTRA-PROCESSED FOODS AFFECT HEALTH IN CANADA

June 2019

Nardocci et al prepared for the Heart and Stroke Foundation June 2019

10 Things TO Ditch From Your Kitch



1 Junk food

These are the obvious “bad” foods that contain no nutritional value. They are often “fun” foods or foods that you crave when you’re feeling tired, sad or bored. They don’t satisfy hunger, and they contain loads of sugar and processed ingredients.

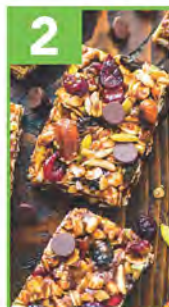
Eg. Candy, chocolate bars, ice cream, packaged cookies, cheesies, potato chips, doughnuts, pop, cake



6 “Snack” foods

Generally marketed as healthy options for kids, these foods are packed with sugar, processed oils and artificial chemicals that leave you wanting more.

Eg. Cheesy crackers, granola bars, 100-calorie “snack packs”, pudding cups, yogurt tubes, flavoured applesauce, boxed cereal, gummy fruit snacks, pretzels, chips, trail mix



2 Added sugar

Sugar hides in many common foods, even foods that are marketed as “healthy”. Reading ingredient labels becomes important for identifying sneaky added sugars in the diet.

Eg. Pasta sauces, sports drinks, salad dressings, fruit snacks, soups, yogurt, juice, peanut butter, cereal, jam, bbq sauce, granola bars, dried fruit, coffee creamers, non-dairy milk, tonic/flavoured water, ketchup



7 Pre-prepared, packaged, “convenience” foods

Pre-made foods usually include unpronounceable ingredients, excess sodium and unhealthy fats. They are also a common hiding place for added sugar.

Eg. Canned soups/chilis, store-bought salad dressings, pasta sauces, “hamburger helper”, “shake n bake”, kraft dinner, frozen dinners, frozen french fries/chicken strips, frozen “appies”, microwave popcorn, instant noodles



3 “White” carbohydrates

These foods spike blood sugar almost as much as consuming white sugar—they are highly processed to remove most of the fibre and nutrients naturally found in whole grains.

Eg. White rice, white or “whole wheat” bread, pastries, white flour, bagels, cereal, white pasta, wraps, naan bread



8 Artificial colors, sweeteners and flavours

The epitome of “fake food”—generally artificial additives are loaded with chemicals that the body can’t recognize.

Eg. Diet beverages, splenda, sweet n low, zero calorie drinks, brightly colored beverages or foods, any ingredient containing a number—generally found in processed/packaged foods



4 Fruit juice

Since all the fibre from the fruit has been removed, the copious amounts of fructose sugar found in juice hit the bloodstream quickly, just like pop would. This causes blood sugar imbalances and can lead to weight gain and develop insulin resistance.

Eg. Cranberry cocktail, grape juice, apple juice, orange juice, tropical juice blends, etc.



9 Preservatives

These are chemicals that don’t belong in food. They can have toxic effects on the body and should be avoided whenever possible!

Eg. BHA, BHT, TBHQ, Sodium Benzoate, Sodium Nitrate, Azodicarbonamide



5 Processed vegetable oils

Vegetable oils are often processed at high heats and are therefore damaged by the time we ingest them. They are often high in hydrogenated trans-fats, which lead to health risks. Furthermore, their high content of Omega 6 fatty acids cause an imbalance in the ratio of Omega 3 to Omega 6 in our bodies, leading to inflammation.

Eg. Soy oil, corn oil, cottonseed oil, cooking sprays, canola oil, shortening, margarine, most mayonnaise and vegan mayo, “buttery spreads”, etc.



10 “Ultra processed” foods

These foods that don’t resemble a real food in any way! They will have long ingredient lists with many unpronounceable ingredients.

Eg. Cheese whiz, cool whip, canned meat products, hot dogs, chicken/fish nuggets, packaged baked goods, breakfast cereals, flavoured coffee creamers, fake meat products





5 Only Drink the Calories You Love—Learn to Love Water

Your body has a complex system to alert you to eat when hungry and stop you from consuming too much.

Drinking beverages with calories bypasses this control and leads to overconsumption, excess calories and energy overload.

In other words, drinking your calories makes it more likely you will gain weight.

Substituting water for calorie-laden drinks not only eliminates the extra calories, studies show increasing your intake of water can contribute to weight loss via two mechanisms:

1. **Decreased feeding** - replacing liquid calories with water leads to a decrease in overall caloric consumption. Being fully hydrated leads to early satiation, that feeling of fullness that decreases your appetite. **Many people do not adequately distinguish between hunger and thirst and eat when thirsty.**
2. **Increased fat burning** - though not completely understood, many animal and human studies show that increased hydration can increase your metabolism by expanding cell volume, fat breakdown, and energy expenditure.

Of course, water does so much more—it is vital for virtually all body processes, including digestion, energy metabolism, blood pressure regulation, immunity, muscle and bone function.

Getting enough water should be simple—drink when you are thirsty. Many people fail to heed their thirst and forget to drink, becoming chronically mildly dehydrated and prone to weight gain.

So if you cannot remember to drink, let your urine be your guide. Drink to maintain your pee at a light yellow colour. Dark yellow and orange urine tells you your body needs more water.

How to get more water?

Start your day with a glass of water and carry a water bottle with you all day and make drinking it a habit.

If water seems boring, try infusing your water by adding:

- lemon
- lime
- grapefruit
- orange
- cucumber
- ginger
- mint
- crushed berries

to a pitcher or even directly to your water bottle.

Missing the carbonation of pop, then carbonate your water before infusing it.

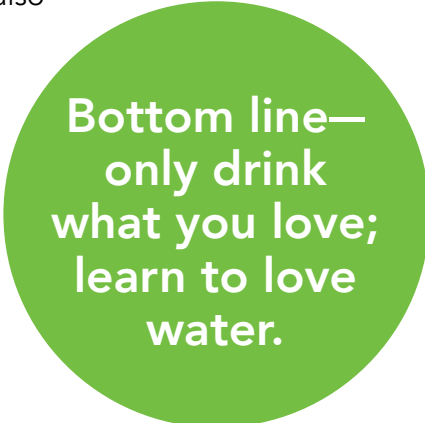
Carbonation, while lowering pH, has no detrimental effects, and if it gets you to drink more, it is worth the effort.

What about coffee and tea?

It is a myth that the caffeine in coffee and tea dehydrates. The only thing you have to watch out for is what else is in your favourite drink. Many of the beverages from Starbucks and other cafes are amongst the most calorie-laden, sugar-packed concoctions ever created.

Alcohol is a double whammy!

Not only does alcohol itself have calories, but most drinks also are loaded with calories from fast carbs.



Bottom line—
only drink
what you love;
learn to love
water.



Hara Hachi Bu

6 Stop Eating When You Are 80% Full

Your body's ability to maintain weight over extended periods is truly a feat of nature.

At a high level, maintaining weight over the long run, energy expended must equal energy consumed.

For example, if you maintain your current body weight within two pounds, your body has matched your energy intake to your output with less than 1% deviation.

This feat is achieved through a symphony of signals between your brain and gut, carefully balancing hunger and satiation, adjusting your resting metabolic rate up or down like a thermostat to maintain such a fine balance.

In your brain, the hypothalamus is the control centre for hunger and satiation, receiving nervous and hormonal signals to increase appetite or stop feeding.



**This signal to
stop eating is
vital to prevent
overeating.**

When we eat, nutrients in the food stimulate the release of multiple hormones, cholecystokinin, PYY, GLP-1, GIP, PP, from the cells lining our intestines. As the meal progresses, the circulating hormone levels increase until a “satiation threshold” is reached at the hypothalamus. Paired with this is direct information from the nerves in our distended stomachs and indirect signalling metabolites from bacteria in our gut—**all these messages telling us we are full!**

Our challenge is not that it is hard for us to know whether we have eaten enough; it just takes time. On average, it takes 20 minutes for these signals to cross the satiation threshold.

If we eat too fast, it is easy to overeat as we realize we are full, really full, too late.

The best strategy is what the Okinawans call “Hara Hachi Bu”—stop eating when you are 80% full.

More often than not, you will feel fully satiated as a few more minutes go by, and your satiation hormones have had their time to work.

A closely related strategy is simply slowing down and taking your time with your meal, breaking it into several small courses over 30 to 40 minutes like the French.

Either way, you will find it easier to prevent overeating and help your body perform the wonder of energy balance.

Five Tips for Eating to 80% Full

- 1** Start your meal with a glass of water.
- 2** Put your cutlery down between bites and chew your food fully.
- 3** Fill your plate to 80% of your typical portion. If you are still hungry after being at the table for 20 minutes, allow yourself the additional 20%.
- 4** Eat your vegetables and protein first. Save any starchy carbohydrate for the end of your meal.
- 5** Be mindful while you eat—turn off the TV, put your phone away and pay attention to the flavours and textures of your food.



7 Go 12 Hours Without Eating

The seventh and final behaviour in our Eat Better Strategy is straightforward: **Go 12 hours without eating.**

Eliminating the extra calories from nighttime snacking may be the most significant impact for many, but embracing 12 hour daily fasts aligns with two principles derived from human evolution—circadian rhythms and fasting physiology.

**“Eat like a king
in the morning,
a prince at noon, and
a peasant at dinner.”**

Maimonides (1135–1204),
a medieval Jewish
philosopher/doctor

The earth's predictable, 24 hour, light/dark (diurnal) cycle has led evolution to develop circadian rhythms.

The light part of the cycle activates many genes while turning off others, preparing our body for what the day holds:

- activity
- exertion
- movement
- stress
- eating
- digestion

At night, the process reverses with the active daytime genes shutting down and others activating, setting our system up for the expected nighttime activities:

- sleep
- rest
- recovery
- memory formation and consolidation

Up to 40% of our genes are affected by the diurnal rhythm. Light is the dominant trigger, but the presence or absence of food also plays a key role.

Bottom Line: Our bodies expect food in the daytime and fasting in the evening—evolution has designed us this way.

Above and beyond the timing of eating, going without eating can trigger biological processes of repair and restoration collectively known as fasting physiology.

From an evolutionary perspective, the ability to survive periods of starvation makes sense. Cells reprogram themselves during periods of fasting; recycling damaged intracellular proteins and organelles such as mitochondria. This process, called autophagy, provides energy and building

If you are taking medications—please check with your doctor and develop a plan before initiating intermittent fasting or time-restricted eating.

blocks for cellular maintenance. Suppression of autophagy is associated with oxidative stress, inflammation, ageing and cancer.

Research has demonstrated that intermittent fasting (IF) provides many benefits:

- improve cardiovascular function—decrease blood pressure, reduced resting heart rate, increase parasympathetic tone
- decreased oxidative stress
- improve insulin sensitivity—lower blood sugars
- reduce oxidative stress
- reduce inflammation
- reduce visceral fat
- reduce body fat (while preserving lean muscle mass)
- improve lipid profiles
- improve cognition—increased neurotrophic factor production, improved synaptic plasticity, improve neuroendocrine response

Consistently going 12 hours without food will likely provide many of these benefits and provide you with the foundation for IF.

Before trying IF, we recommend following the Eat Better Strategy principles for 4-6 weeks.



Putting It All Together

You have learned the EAT Better Strategy.

Now it is time to put it into action—so let's address some common questions:

Where to start?

Start at the beginning—implement steps 1, 2, 3:

- Build your meals around a healthy protein package.
- Load up on veggies, fruits, legumes, and whole grains.
- Balance your meals with healthy fats.

Working on these key behaviours will leave you well-nourished and satiated. Getting enough protein and fibre, balanced with healthy fats will prevent you from over-eating.

Your body will work as designed by following these actions—superbly balancing food intake with your energy requirements.

Focusing on these first three steps will make the following behaviours easy:

- Avoid ultra-processed foods.
- Only drink the calories you love—learn to love water.

The final behaviours are fine-tuning. Many of us eat for reasons other than hunger—boredom, stress, habit, reward etc.

Learning to take the time to listen to your body's satiation signals will help you be more intentional about why you are eating.

- Stop eating when you are 80% full.

Give your body a food break every day.

- Go 12 hours without eating.

Let your body show you the incredible ability it has to balance energy over time.

Let your body show you that you have enough energy already.

Doing a 12 hour fast every day has some powerful physiological benefits, but its real power may lie in the fact that you cut out the empty calories from nighttime snacking.

In doing so, you also strengthen your ability to differentiate between hunger and the other signals driving you to eat: boredom, stress, habit, reward, etc.

Some other questions:

What do I do if I want to lose weight?

- Start with the EAT Better Strategy—after 4-6 weeks of mastering these behaviours; you will see some changes—if not, you will be ready to take other steps to lose weight sustainably. For most of the people we work with, Eat Better is ALL they need to do.

What if I have diabetes?

- Again, start with the EAT Better Strategy—your blood sugars will improve. If you are taking medications, work with your doctor (or get a referral to work with us), and create a plan to adjust your medication in line with your improving blood sugars.

What if I have heart disease, hypertension, high cholesterol, osteoarthritis, osteoporosis, etc.?

- I think you know what is coming—Start with the EAT Better Strategy. It is a foundational strategy that can be fine-tuned depending on your underlying condition.

What should I do if I need help?

- Work with our dietitians to apply the EAT Better Strategy to your life. They will consider your preferences, environment, strengths and weaknesses and help you plan to EAT Better. Learn more about the 1:1 dietitian coaching.
- Join us in our upcoming workshops to apply this strategy to your life.

**Need
More Help?
Consider 1:1
Coaching**



EATBetter

Weekly Planner

Day		Protein	Veggies 5+	Fat Balance	No Processed			Drinks	Water	Calories	Alcohol	
1	Meals	Breakfast					Fibre (30 g)		Drinks	Water	Calories	Alcohol
		Lunch										
		Dinner					Fasting (hrs)					
	Notes											
2	Meals	Breakfast					Fibre (30 g)		Drinks	Water	Calories	Alcohol
		Lunch										
		Dinner					Fasting (hrs)					
	Notes											
3	Meals	Breakfast					Fibre (30 g)		Drinks	Water	Calories	Alcohol
		Lunch										
		Dinner					Fasting (hrs)					
	Notes											
4	Meals	Breakfast					Fibre (30 g)		Drinks	Water	Calories	Alcohol
		Lunch										
		Dinner					Fasting (hrs)					
	Notes											
5	Meals	Breakfast					Fibre (30 g)		Drinks	Water	Calories	Alcohol
		Lunch										
		Dinner					Fasting (hrs)					
	Notes											
6	Meals	Breakfast					Fibre (30 g)		Drinks	Water	Calories	Alcohol
		Lunch										
		Dinner					Fasting (hrs)					
	Notes											
7	Meals	Breakfast					Fibre (30 g)		Drinks	Water	Calories	Alcohol
		Lunch										
		Dinner					Fasting (hrs)					
	Notes											



JOIN OUR **FREE** 12 WEEKS TO Take Control of Your Diabetes Program

Learn the 4+2 Diabetes Reversal Strategy—a comprehensive, evidence-based approach to diabetes reversal. **FREE** with provincial health coverage in BC, Alberta and Ontario.

HOW IT WORKS

Our 12-Week Program

 Fully Covered in BC, AB, and ON

Our program is 100% virtual. You can access sessions and materials from the comfort of your home.



Virtual Physician Visits

Consultations with our physicians are done by video call, and can be completed from any computer, tablet, or phone.



12 Virtual Group Sessions

In groups of 15-30, you will attend weekly virtual sessions with a physician where you can ask questions and hear about the successes and challenges of others.



Videos & Weekly Lessons

Watch videos explaining core concepts, print out reference guides and cheatsheets, and complete ongoing learning exercises.

How often do you sleep 7-8 hours?

☐ Every day

☐ Most days

☐ 3-4 nights per week

☐ Less than 3 nights per week

8.9
SLEEP SCORE

Self-Assessments & Exercises

Answer questions and complete exercises to show where you're doing well and where you need to focus.



Personal Health Reports

Different people are, well, different. Understand what your lab results and other markers show about your current health and diabetic reversal path.

For more info, please visit lifestylerrx.ca