

HELP: The Health, Energy & Longevity Plan

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Preface

HELP: The Health, Energy & Longevity Plan briefly encapsulates lifestyle elements which will help most people improve their health and sense of well-being. It's particularly helpful in the context of the Standard American Diet (SAD) which has led to 88% of Americans meeting at least one criterion of metabolic ill health.

What HELP is:

- A way of eating and living that is consistent with how humans have thrived for thousands of years. Much of the official dietary guidance of the last 50 years has been counterproductive, contributing to the epidemics of obesity and type 2 diabetes along with many other diseases.
- A distillation of knowledge from a community of physicians, scientists, journalists, and patients, gleaned from the scientific literature and from expert opinion as found in the helpful books included in the bibliography, as well as from Dr. Strobel's decades of clinical practice.
- A cheat sheet that highlights the lifestyle changes and behaviors most likely to
 contribute to your health and vitality. We provide a one-page handy reference resource, with
 extended discussion in the following pages. For more in-depth learning, read the books in the
 bibliography or free educational blog posts at HELPcare.health.

What HELP is not:

- A novel and proprietary set of insights on health and medical issues. Like-minded
 physicians, scientists and patient activists are implementing similar strategies all over the world
 and have formed an online movement. We have simply pulled together research and expert
 opinion insights from that community into a workable and sustainable plan.
- A medical prescription. This document and associated online resources are for educational purposes only and your use of them does not create a doctor-patient relationship. You should discuss diet and lifestyle changes you want to make with your doctor, particularly if you are taking prescription medications that might need adjustments.
- A lifetime commitment. You may wish to try implementing these changes for four to six weeks and see how you feel. It may well provide relief from many of the chronic conditions you've experienced, providing motivation for longer-term change.
- A set of dietary and lifestyle rules to which you must rigidly adhere. You likely will feel better the more closely you follow HELP, but the elements are only guides. These are not 10 Commandments for good health. Sometimes you will decide to "step off the wagon." You can eat that birthday cake and enjoy holiday dinners and special events. Through HELP you can restore your metabolic flexibility and reduce the harm from these occasional excursions.

We hope you will use **HELP** as part of your journey to improve your life, and we will be delighted if you get results without accessing any of our premium services. If you need more support, we offer that as well through HELPcare Community, HELPcare Coach and HELPcare Clinic. Learn more at **HELPCare.health**.

For your Health, Energy & Longevity,

Lee Aase, M.B.A. David W. Strobel, M.D.



About the Authors



Lee Aase, M.B.A. worked for 14 years in politics and government at the

local, state, and federal levels before joining Mayo Clinic's media relations team in 2000. As the team's manager he led Mayo's exploration and early adoption of social media tools such as YouTube, Facebook, Twitter, LinkedIn, and blogs. In 2010 he founded what became the Mayo Clinic Social Media Network (#MCSMN), which provided resources, training, and an online community for his colleagues at Mayo and in other health care institutions worldwide who were interested in applying social media in their work.

In 2016 Lee and his wife, Lisa, became concerned about their weight and health status and began a health journey that led to each of them losing more than 50 lbs. and restoring their metabolic health. In early 2020 he began a series of posts on his personal blog recounting his and Lisa's health journey. Later that year they began informally coaching others and helping them make health changes. Blog readers who had seen health benefits from applying Lee's #BodyBabySteps reached out with their stories.

Lee became convinced that the most important contribution he could make in the last portion of his career would be to work full-time helping others make similar changes. After he received his M.B.A. in Healthcare Management and Nutrition Network Advisors certification, he retired from Mayo Clinic in August 2021 to found HELPcare LLC and to help Dr. Strobel, his high school classmate and former personal physician, open HELPcare Clinic.



David W. Strobel, M.D. has been a family physician since 1992 with an interest

in geriatrics and has seen the health problems related to metabolic syndrome increasing in society and among the patients he serves. With the heart of a teacher, he has helped patients better understand the root causes of their health conditions so they can significantly improve or even reverse problems like diabetes and hypertension, reducing their risks of heart disease, stroke, dementia, and cancer.

Like most of his colleagues, Dr. Strobel began his career simply giving patients the lifestyle advice he had learned in his training. However, this resulted in very little improvement in their medical problems. As time went by, he began to learn more about the metabolic syndrome, a rather new idea in the 1990s. In this process, he began to see that the methods that he had learned were not only ineffective but also wrong.

Over the years, Dr. Strobel's counseling regarding lifestyle-based treatments has changed dramatically, resulting in many more successes. He has become increasingly confident that the standard advice that is still often provided by most physicians is unreliable and even harmful. Most encouraging is the number of people who are experiencing lifechanging improvements that have allowed them to reduce or remove medications and decrease dependence upon medical care. This change in his practice has been by far the most exciting professional development he has experienced in his career.



The Scourge of Metabolic Syndrome

A person who meets any three of the following criteria is officially defined as having metabolic syndrome, or insulin resistance syndrome:

Recent reports indicate that 88% of Americans meet at least one of these criteria, and the reality is if you have one of them it's likely just matter of time until full-blown metabolic syndrome results – unless you take action to reverse insulin resistance.

Metabolic syndrome is *a* cause if not *the* cause of the serious and chronic health conditions

that plague Americans and our health system today, leading to nearly 75% of health care expenditures.

THE FIVE PRIMARY CRITERIA DETERMINING METABULIC SYNDRUMI

HIGH BLOOD SUGAR

HIGH TRIGLYCERIDES

LOW HDL CHOLESTEROL

HIGH BLOOD PRESSURE

OBESITY

Fasting blood glucose > 100 mg/dL.

> 150 mg/dL or on medication

< 40 mg/dL for men or < 50 mg/dL for women

> 130 mmHg systolic or > 85 mmHg diastolic

Waist > 40 inches for men or > 35 inches for women

PEOPLE WITH METABOLIC SYNDROME...

Are 5-11 times more likely to develop type 2 Diabetes.

Have twice the risk of developing cardiovascular disease and dying from it.

Are more likely to get cancer, as four out of 10 cancers diagnosed in the U.S. are related to overweight and obesity.

Have increased risk of Alzheimer's disease and other forms of dementia. In fact, Alzheimer's is sometimes called "type 3 Diabetes."

This is the point of **HELP** and of **HELPcare.health**.

We help you take charge of your own health. Instead of separate pills to address symptoms, we give you information on ways you might change your diet and lifestyle to prevent or even reverse them, by improving how your system works.

For example, many patients with prediabetes or type 2 diabetes have gained blood sugar control and eliminated the need for medications using the principles in **HELP**. That saves on prescription co-pays, but more importantly preserves and restores health.

Isn't that what health care should be about?

The next page outlines the elements of **HELP** in brief, and after that we go into more detail on each.

NOTE: Throughout this booklet we have included hyperlinks to explanatory blog posts as well as sites where you can purchase helpful supplements and tools. We receive no compensation from the sellers of any of these ancillary items. We have simply included the links to make it easier and more convenient for you to get started with the plan.

This document and associated online resources are for educational purposes only and your use of them does not create a doctorpatient relationship.

You should discuss diet and lifestyle changes you want to make with your provider, particularly if you are taking prescription medications that might need adjustments.



HELP in Brief

- 1. LIMIT CARBOHYDRATES (SUGARS & STARCHES). For most people, limiting to 15g of "carbs" per meal is a good place to start. You may need to reduce further to get the desired results, or you may be among those who can tolerate more carbs without ill effects.
- 2. FIND FULLNESS IN HEALTHY FATS & PROTEIN. Meat, eggs, avocados, nuts, full-fat dairy including butter and cream, olive oil, cheese and other real foods are satisfying sources of essential nutrients.
- **3. AVOID GRAINS.** Humans don't have digestive systems that can effectively process grasses and the seeds of grasses. So-called "vegetable oils" are really seed oils (corn, canola, soybean, cottonseed, sunflower, etc.) and are high in Omega-6 fatty acids that cause systemic inflammation.
- **4. SUPPLEMENT SMARTLY.** Most Americans are deficient in several key vitamins and micronutrients and would benefit from supplementation.
 - a. Keep your vitamin D (calcifediol or 25-hydoxyvitamin D) blood level between 60-100 ng/mL.
 This generally requires a daily dose of 4,000-10,000 IU or a weekly dose of 50,000-100,000 IU.
 - b. Correct magnesium deficiency -400-500mg per day. Use magnesium citrate, magnesium glycinate, magnesium L-threonate or magnesium malate, not magnesium oxide.
 - c. Correct **iodine** deficiency 300-1000mcg (0.3-1mg) per day using kelp pills or low potency nascent iodine drops (do not use high potency Lugol's solution.)
 - d. Take a sufficient dose of **fish oils** per day, meaning DHA + EPA of 3000-3600mg.
 - e. You may also wish to consider supplementing **vitamin K2, Zinc and Turmeric**.

- 5. CULTIVATE YOUR "BOWEL GARDEN" OR MICROBIOME. Weed the garden using daily fermented foods (e.g. sauerkraut, kombucha, apple cider vinegar.) Replant the garden with probiotic supplements (at least 50 billion colonyforming units or CFUs per day.) Feed the garden with prebiotic fibers.
- 6. LIMIT WHEN YOU EAT. Continuous eating keeps insulin levels high and prevents access to your stored fat. Start by avoiding any snacking after dinner to have at least a 12-hour fast daily. As you increase your ability to fast for longer periods, you increase fat-burning and other beneficial results.
- 7. SLEEP SUFFICIENTLY. Sleep is essential to cognitive function and learning as well as many body repairs. Most Americans are chronically sleep deprived. Another benefit of not eating after dinner is often improved sleep quality.
- **8. EXERCISE EFFECTIVELY.** Build muscle mass and strength through resistance training and get the right kinds of aerobic exercise.
- 9. FOCUS ON MENTAL, EMOTIONAL, SOCIAL & SPIRITUAL (MESS) HEALTH. Your mind, spirit and body are intricately connected. You're more than a meaty machine. Physical health habits affect your MESS health, and the reverse is true too.
- 10. MANAGE YOUR HEALTH BY MEASURING.

As management thinker Peter Drucker said, you can't manage what you can't (or don't) measure. Use a tape measure to get your waist circumference. A wireless bathroom scale can automatically send daily readings to your smartphone app. More frequent medical tests will help you more effectively gauge and track your health. See the detailed section for other measurement tools and apps, as well as information on affordable laboratory testing services.



1. LIMIT CARBOHYDRATES (SUGARS & STARCHES)

Carbohydrates come in two main categories: Sugars and Starches

Sugars include monosaccharides (single sugars) and disaccharides (two sugar molecules bonded together.) Sucrose, or table sugar, is made of equal parts glucose and fructose. Glucose is the most basic sugar and is what all cells in your body can use for fuel, while fructose is also found in fruits. Fructose is what makes sugar sweet.

High fructose corn syrup is sweeter than table sugar because it is 55% fructose and only 45% glucose.

Starches are carbohydrates that have three or more sugar molecules and are also called polysaccharides. **Potatoes and other root vegetables** are easily and quickly digested and therefore raise blood sugar significantly, even though they don't taste sweet.

Beverages, especially soft drinks and beer, are a significant source of carbohydrates. Some foods that are often considered healthy actually are not, especially **fruit juices**, **dried fruits and honey**, which have very high concentrations of fructose and should be eaten only infrequently and in small amounts. Fructose is especially likely to trigger fat storage, particularly in the liver.

A rise in blood glucose triggers the pancreas to produce more insulin to move sugar from the blood into cells. Persistently high insulin levels cause the body to become resistant to insulin, requiring more and more insulin to maintain blood sugar control.

Even though they have no calories and don't raise blood sugar, **artificial sweeteners** also can trick the body into producing more insulin, driving down blood sugar levels to the point that many people have cravings for more carbohydrates. So, you may have a **diet soda** but then be driven to binge on **chips or fries**.

In **HELP** we recommend starting at 15 grams of carbohydrates per meal. Some people with more advanced insulin resistance may need to restrict further or extend their fasting periods. Others will find that they can still achieve desired results with a slightly higher carbohydrate intake.

A declining number on the bathroom scale and reduced waist circumference are the easiest indicators that you have sufficiently reduced your carbohydrate intake. Achieving measurable ketone levels in your blood is the most reliable indicator that your body is accessing stored fat, however.

These should be limited:

- table sugar
- honey
- agave
- corn syrup
- artificial sweeteners
- soda & diet soda
- beer
- potatoes (chips & fries)
- root vegetables
- fruit juices
- dried fruits





2. FIND FULLNESS IN HEALTHY FATS & PROTEIN

One of the great benefits of the low-carbohydrate, healthy fat (LCHF) diet is that you don't need to be constantly feeling hungry and deprived. *If you are, you're doing it wrong.*

In **HELP** your priority, as you say no to excessive carbohydrates, is saying yes to savory, filling fats and protein. You're not counting calories or trying to restrict them.

Eat until you're full.

By prioritizing protein and healthy fats you won't have the blood sugar spikes that trigger insulin release, and you won't experience blood sugar crashes that create cravings.

Because will power is a finite resource across all areas of your life, not just what you eat, depending on it is a formula for dietary failure.

If you drink coffee, black is fine but you also could do well by blending in some melted **butter** or **heavy whipping cream** (not half-and-half or milk). This provides some satiating fat without elevating blood sugar.

If you like **eggs**, they're a nearly ideal food with both healthy fat and protein. Be sure to eat the whites and the yolks, and don't be concerned about cholesterol. The cholesterol you eat doesn't increase cholesterol in your bloodstream.

See our list to the right for some great sources of fat and protein.

Fill up on these foods:

- beef
- chicken
- duck
- turkey
- pork
- lamb
- fish
- seafood
- bacon
- sausage
- eggs
- cream cheese
- cottage cheese
- sour cream
- almonds
- Brazil nuts
- walnuts
- avocados
- olive oil
- butter
- heavy cream
- full-fat plain yogurt
- cheeses

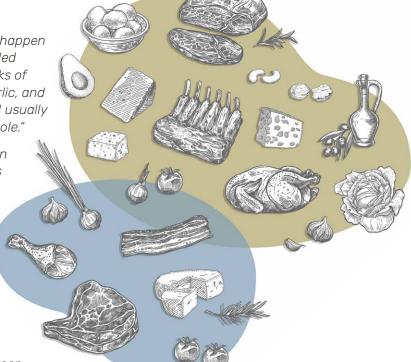
Lee says:

A typical breakfast for me (which may not happen until well after noon) includes four scrambled eggs with three strips of bacon, with chunks of cream cheese melted into the mix with garlic, and seasoned with salt, pepper, and tarragon. I usually top it with a single-serving cup of guacamole."

When I grill steaks for dinner, I usually do an extra one which I refrigerate and cut up as an alternative to the bacon in my eggs for the next couple of days. Diced ham or sausage links are other good options.

Another great choice is **this yogurt** I make with a mix of half-and-half and heavy whipping cream.

Hamburgers or bratwursts without the bun, grilled chicken (with the skin on), and various other dishes made from the ingredients listed above and mixed with green vegetables provide a filling foundation.





3. AVOID GRAINS

In addition to gluten, which is the cause of celiac disease and other sensitivities, cereal grains include other proteins such as gliadin that can cause systemic **inflammation.** Dr. William Davis (*Wheat Belly* and *Undoctored*) and Dr. David Perlmutter (*Grain Brain*) are among those who have led public awareness of the health problems resulting from grain consumption.

Cereal grains also are carbohydrates, which you should be limiting anyway. Cereal grains are all members of the Poacea family of plants which contains over 12,000 grass species.

Look for "hidden" sources, like corn syrup or rice flour as a capsule filler by carefully reading labels.

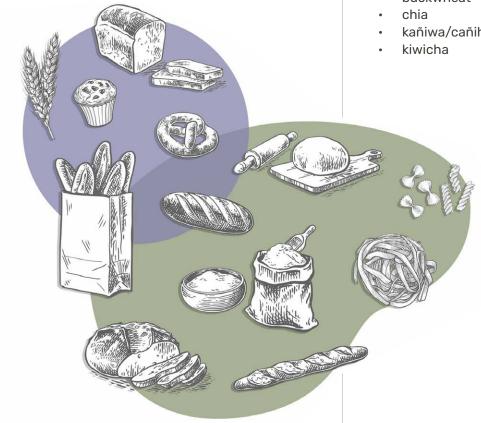
Additionally, grain substitutes are becoming increasingly available, such as chickpea pasta, red lentil pasta, riced cauliflower, vegetable-based chips, coconut flour and almond flour.

These should be avoided:

- wheat
- oats
- rice
- wild rice
- corn, barley
- rye
- millet
- triticale
- sorghum
- spelt
- fonio
- teff

These are acceptable:

- quinoa
- amaranth
- buckwheat
- kañiwa/cañihua





4. SUPPLEMENT SMARTLY

Ideally you would get your essential nutrients through what you eat, but most Americans are lacking in several key vitamins and micronutrients, which contributes to many common health problems.

For example, your thyroid gland depends on **iodine** to function properly, and iodine comes from the sea. Those who live far from coastal areas are particularly at risk of low iodine levels, and that's why iodine was added to table salt in the 20th century. Due to blood pressure concerns, many people are cutting back on salt, and others use pink Himalayan salt which doesn't have the added iodine. **Kelp tablets** are an easy way to ensure adequate iodine intake.

Vitamin D deficiency is an extremely important health problem in the United States today. As indicated on the one-page summary, you want 25-hydoxy vitamin D levels of 60-100 ng/mL. In addition to obesity, low vitamin D levels are among the biggest predictors of a poor outcome with COVID-19. Taking **two of these** each day will cost you about \$0.08 and will likely keep you in that healthy range.

Magnesium is vital to your cell metabolism and is important for sleep too. Magnesium citrate or magnesium glycinate are good options. This along with sufficient salt intake will help you maintain electrolyte balances and diminish the effects of so-called "keto flu."

Fish Oils are high in Omega-3 fatty acids, which are essential for healthy cell membranes. Wild-caught cold-water fish are an ideal source, but mercury contamination is a concern. Grass-fed beef also is higher in Omega-3s. Your goal should be 3,000-3,600 mg/day combined of EPA and DHA. With some supplements getting that much could require 8-10 pills a day. This one provides sufficient EPA and DHA levels with four pills per day.

Other supplements you may wish to consider include <u>vitamin</u> <u>K2</u> (supporting bone and cardiovascular health), <u>zinc</u> (immune system) and <u>turmeric</u> (anti-oxidant and anti-inflammatory).

Consider these supplements:

- iodine
- kelp tablets
- vitamin D
- magnesium citrate
- magnesium glycinate
- fish oil
- vitamin K2
- zinc
- turmeric





5. CULTIVATE YOUR "BOWEL GARDEN" OR MICROBIOME

Scientists and physicians increasingly understand a healthy gut microbiome as essential to human health.

Your gut contains trillions of bacteria living symbiotically within you. You provide a home and ideally the right types of fiber for them to eat, and in return they produce hormones, enzymes, growth factors and other things your body needs.

When your microbiome isn't working well with you it's called dysbiosis. Sometimes this can be caused by taking antibiotics to kill an infection, which can simultaneously wipe out your healthy gut bacteria. Sometimes you starve these bacteria by not having enough of the right kinds of fiber, and then they start attacking the mucous layer of your gut, creating a condition called "leaky gut" which enables larger molecules to get into your bloodstream, causing inflammation and an immune system response.

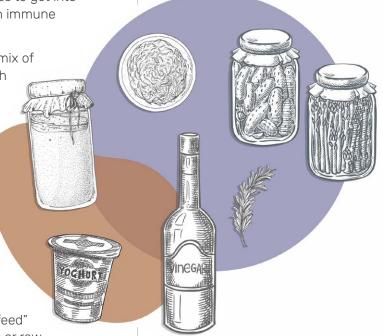
Much remains to be learned about the optimal mix of bacteria in the gut, but for now a good approach seems to be first to use daily fermented foods such as apple cider vinegar, kombucha or sauerkraut to "weed" the garden.

Seeding the garden with a **probiotic** that contains at least 50 billion colonyforming units (CFUs) and at least a dozen different strains of bacteria *promotes* healthy diversity. You may need to do this intensively for four to six weeks, especially if you have been ill or on antibiotic treatment.

Some people continue taking probiotics daily, while others feel this initial course is sufficient provided you follow the third step, which is to "feed" the garden with prebiotic fibers. Green bananas or raw potatoes are good sources, but they also contain other carbs. We make a delightful yogurt out of half-and-half and heavy whipping cream, and put 3-4 scoops of inulin powder in each daily serving.

Eat some of these every day:

- apple cider vinegar
- kombucha
- sauerkraut
- kimchi
- live culture yogurt
- pickled vegetables





6. LIMIT WHEN YOU EAT

Most dietary advice relates to what you should eat, but when you eat can be just as important. Time-restricted eating and longer periods of fasting can be extremely beneficial. For one thing, you're giving your gut a rest. If you finish eating at least three hours before bedtime (by 6 p.m. for example) your resting heart rate will lower sooner and improve sleep quality.

You'll also begin to create an extended period of lower insulin levels as your body burns through most of its glycogen by morning. Because insulin is a growth and storage hormone, when levels are elevated your adipocytes (fat cells) can't release fatty acids into your bloodstream to be turned into ketone bodies, an alternate source of fuel for your cells, by your liver.

If you skip breakfast and just have black coffee the fat-burning continues. You can even have melted butter or heavy whipping cream in your coffee without raising insulin levels, and yet this little bit of fat makes you less hungry. You may find it relatively easy not to eat your first meal until noon.

Congratulations! You will have just completed your first timerestricted feeding window by not eating for 18 hours. You slept through several of them and sipping on coffee meant your body was either burning the small amount of fat in the butter or cream or was only burning your stored fat. Either way, you were a fatburning machine!

As you become fat-adapted through a low-carb diet and time-restricted eating you may find you can extend your fasting window to nearly 24 hours, eating just one meal a day, sometimes called OMAD.

If that one meal is sufficiently filling with healthy fats and protein and limited carbs, even it won't spike your blood sugar. You'll go to bed feeling full and satisfied, and you'll be in fatburning mode constantly.

The way you can know for sure that you're burning fat is by measuring your ketones. This **Keto-Mojo glucose and ketone meter** is a great tool, which lets you measure both your blood glucose and ketone levels with a single finger stick. More on that in element 10.

You may eventually want to consider longer fasts, such as a #3DayCancerPreventionFast. Longer fasts such as these promote autophagy, or cleanup and recycling of defective mitochondria and other organelles. They also can reboot your immune system, and put increased stress on any cancer cells in your body. Many cancer cells can only get energy from glucose, and so by raising ketone levels and reducing blood glucose they may be stressed enough to be killed.

Basic recipe for daily 13-hour fasting:

- Finish eating for the day three hours before bedtime.
- 2. That's it!

Basic recipe for daily 18-hour fasting:

- Finish eating for the day three hours before bedtime.
- Have coffee or tea with heavy cream instead of a full breakfast.
- 3. Eat lunch and dinner within an 8-hour window.
- 4. Rinse and repeat!





7. SLEEP SUFFICIENTLY

Sleep needs to be a priority to maximize your health. Many of your body's clean-up processes happen during sleep, including in the brain.

Our bodies are designed to do best when we follow the circadian rhythm, mirroring that pattern of sunrise and sunset. Our always-on screens and electric lighting make it easy for this rhythm to be disrupted, however.

We will go into this in more detail on **HELPcare.health**, but if you would like to explore the importance of sleep, **this podcast episode** featuring UC Berkley neuroscience professor Matthew Walker, Ph.D. is a great place to start. It's the first of a three-episode series that will help you see sleep in a new way.

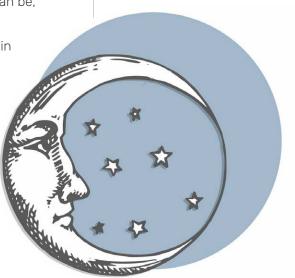
Here are a few key tips you can apply right away:

- Maintain the same sleep schedule regardless of whether it's a weekday or weekend. Some variation may be unavoidable, but the more consistent you can be, the better.
- Get a few minutes of exposure to sunlight within a half-hour of waking. This gets your circadian cycle started.
- Turn off the TV, smartphone, or computer at least an hour before bedtime. Because the blue light from these devices can diminish melatonin in your brain, consider wearing eyeglasses that filter out the blue light.
- Make your bedroom cool. A lower body temperature enables deeper sleep. There's a reason why the bottom side of the pillow feels so good.

Lee has an **Oura Ring**, which contains sensors that measure body temperature, heart rate and variability, respiration and amount of time in each part of the sleep cycle (Deep, REM, Light, Awake) and gives both a Sleep and a Readiness score on the app each morning. The least expensive one is \$299, so it's not something to consider lightly, but it does provide helpful insights to optimize sleep.

For a healthy sleep schedule:

- Maintain your schedule, even on weekends
- Start the day with natural light
- Turn off screens one hour before bed
- Make your room cool





8. EXERCISE EFFECTIVELY

Build muscle mass and strength through resistance training. We typically lose muscle as we age, so building a reserve now can help you remain active and healthy in coming decades. More muscle also revs up your metabolism, which helps with weight management. You can accomplish this through body weight exercises (push-ups, pull-ups, one-legged squats, etc.) or ideally using free weights. *The Barbell Prescription* (see bibliography) is an excellent resistance training resource.

Get the right kinds of aerobic exercise. As a foundation, this means 45 minutes of relatively light cardio, three or four times per week. A brisk outdoor walk or a slow jog, or cycling (outdoors or stationary), or walking on an inclined treadmill would be ways you can get this exercise.

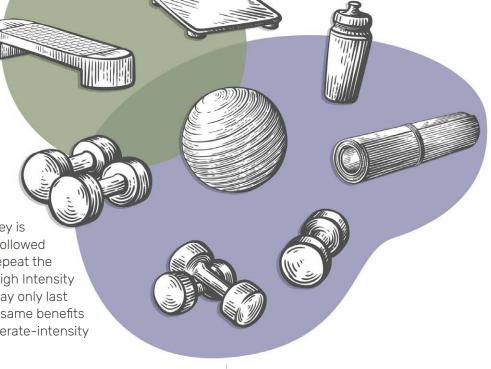
The key is to not push yourself too hard. You should be able to carry on a conversation, or if you're alone perhaps you could recite the Gettysburg Address aloud. "Four score and seven years ago, our fathers brought forth on this continent...." This type of lighter cardio is called Zone 2.

In addition to your Zone 2, spice it up with a couple of brief sessions of more intense Zone 5 interval training each week for best results. Whatever your method (sprinting, burpees, rowing, jumping rope, etc.) the key is to go all out for 20–30 seconds followed by a brief recovery period, and repeat the cycle several times. The whole High Intensity Interval Training (HIIT) session may only last 10–15 minutes and can yield the same benefits as much longer sessions of moderate-intensity

The Zone 2/Zone 5 combo builds long-term stamina while also giving power for short bursts when needed.

Create a workout schedule:

- strength training
- zone 2 cardio aerobics
- zone 5 interval training





cardio exercise.

9. BE MINDFUL OF MENTAL, EMOTIONAL, SOCIAL & SPIRITUAL (MESS) HEALTH

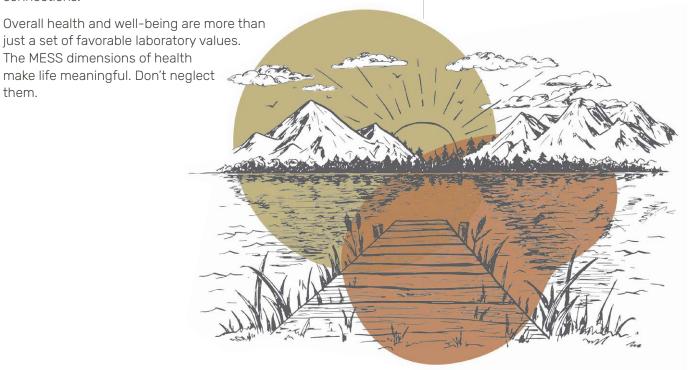
Many mental and emotional health problems, including anxiety and depression, are significantly affected by metabolic health. Those problems of the mind in turn can lead to other physical symptoms.

Improving your metabolic health may lead to improvements in these conditions, and mental health counseling, meditation, prayer, and other spiritual practices can be important elements of your overall health.

The extended isolation brought on by COVID-19 and the societal response also highlighted the importance of strong social connections.

Clean up your MESS by:

- meditation
- prayer
- making strong social connections
- seeking counseling





them.

10. MANAGE YOUR HEALTH BY MEASURING

While laboratory values and other measurements alone do not define health, they do provide indicators to guide change, and give feedback as to whether the changes have been effective. Today's technology makes it easier than ever to get hard data to assess your situation and to track your progress. Lee has found these helpful in getting data to hack his health.

See our list (on the right) of devices and apps we recommend.

Medical Laboratory Tests

Hopefully you have access to laboratory values through your current medical provider organization's patient portal and can discover your current and historical test results.

Some important values for gauging your health include:

- Vitamin D, 25-Hydroxy (ideal range 60-100 ng/mL)
- Hemoglobin A1c (you want your value to be less than 5.7)
- HDL-C (part of standard lipid panel should be >40 mg/dL for men, >50 mg/dL for women)
- Triglycerides (part of standard lipid panel should be < 150 mg/dL)
- Fasting Insulin. This is the most important blood test you've probably never had. It needs to be evaluated in conjunction with fasting glucose, which is part of a standard comprehensive metabolic panel.
- TSH Thyroid-Stimulating Hormone. This is a preliminary test to identify potential thyroid issues, and ideal levels are < 1.5 mIU/L.

If you don't have current values, talk to your doctor about having these tests.

If you are not able to get them through your



makes it possible for you to get them at a price that may be less than your standard insurance co-payment.

For those who are able to become members of HELPcare Clinic, most diagnostic laboratory tests are included at no extra charge, with no co-pays.

Helpful device recommendations:

Apple Watch – paired with my iPhone and its Health and Fitness apps, it gives me significant insights across many dimensions.

Blood Pressure Monitor

Bluetooth Bathroom Scale

Keto-Mojo – This is an outstanding tool for determining whether you're in fat-burning mode (ketosis). If you have any measurable ketone levels in your blood that's a great indication. The Glucose Ketone Index (GKI) also tells you what therapeutic level of ketosis you've reached, which is helpful for **cancer prevention fasts**.

Ooler – this is more like a thermostat than a thermometer; it manages the temperature of our bed and improves our sleep. It's not inexpensive and so wouldn't be the first device I would recommend. I got a significant discount through my subscription to Dr. Peter Attia's podcast.

The Ōura Ring – as described in Step 7, it provides significant data on both sleep quality and readiness.

Smartphone Apps:

All of the devices above have smartphone apps, but here are a couple others we use:

Strong – an app to track resistance training workouts and to measure progress.

Zero – a fasting app that provides coaching tips and tracking for time-restricted eating and fasts of various durations.





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Conclusion

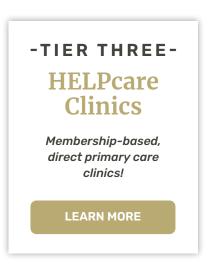
HELPcare.health helps people save themselves from a system that has undermined their health and vitality.

We hope HELP will be a tool you can use to learn more about how you can take charge of your own health, and that you also will take advantage of free educational resources on our site.

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For more up-to-date information, follow Lee's list of **Health Sherpas**.

