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FIRST RESPONDERS

GUIDE TO BETTER NUTRITION



**A PRACTICAL STEP-BY-STEP GUIDE DEVELOPED AND PROVEN
BY FIRST RESPONDERS FOR FIRST RESPONDERS.**



BY: AARON ZAMZOW, BS, PN1, CPT, CSCS

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The First Responders Guide to Better Nutrition.

Healthy eating helps you perform better in life and on the fire and/or rescue scene. If you are reading this download, then you obviously have an interest in being the best First Responder you can be. Let us face the facts; eating healthy in the firehouse or out of it is not the easiest thing to do. It takes discipline and an avoidance of the kitchen (or whatever place in the firehouse where all the goodies are). Obviously, it is impossible to avoid the kitchen entirely, ***but it is possible to lean out the firehouse (or any house).***

The goal of this information is to give you some simple steps to help you get your nutrition back on-track. This is not a diet. This is a lifestyle. By integrating these simple things into your lifestyle, I know you can lose weight, improve your performance, and become a better first responder.

The biggest point I want you to take from these steps is that you need to keep it simple and eat REAL food. Try to get back to the way our ancestors ate: eating unrefined, unadulterated food from the land that nourishes the body. To insure you are eating REAL food you must start reading ingredients labels. Stick to real foods and you will be on your way to feeling better and achieving your health goals in no time.

Again, I want you to create a healthy lifestyle and not follow a diet. I hope this information is helpful and puts “eating healthy” in a different perspective for you.

Step 1. Get hydrated. Stay hydrated.

Around most firehouses (and offices) the day and the shift starts with some coffee. We all need a pick-me-up from time to time but before you reach for that second cup, have some water. Water is the center of all metabolic processes, the more hydrated you are the better your performance. Progressive dehydration from exercise (or fire ground operations) impairs performance, mental capacity, perception of effort and can be life-threatening. With as little as a 2% body water shortage, the ability to perform a high intensity activity can be impaired. Translate that on to the fire ground could mean death or injury to you or a crew member because your performance is diminished.

Staying hydrated also helps you eat less. Water is an appetite suppressant and can be part of a strategy to control between-meal snacking. Drinking an 8-oz. glass of water will blunt sensations of

hunger within minutes. You may find that you are no longer hungry – or no longer as hungry – and can safely wait until regular mealtime to eat.

To stop dehydration before it starts, you must drink plenty of water at regular intervals and aim to replace fluids at the same rate that they are lost. At minimum, consume 64 oz. of water a day). Increase that amount when exercising on duty and after you have completed your workout to avoid being dehydrated at the scene. Follow these recommendations, [click here to download a printable version of hydration guidelines and a great post about the above information](#).



Step 2. Eat your veggies and avoid processed foods.

The next step to eating healthy is to start reading food labels and look at the ingredients. Look for foods that you can recognize in their whole, natural state. Choose to eat more seasonal fruits and vegetables for optimal nutrient density and freshness. They provide the body with muscle and energy promoting nutrients that a firefighter needs to get through the day.

Veggies load your body with the maximum amount of nutrients for the least number of calories, they are a dietary bargain. This does not include vegetable chips or veggie sticks or drinking fruit juice. If the fruit or vegetable in question will not rot after a few days of hanging out on the countertop, then it is a processed food. You should choose green, leafy, lower starch veggies over starchier types. Some examples of these include broccoli, kale, cauliflower, and spinach, and cabbage. Starchier types include potatoes, yams, and sweet potatoes.

On my crew, we like to put some fruits and veggies out on the table (celery, grapes, carrot sticks) and hide the sweets.



Step 3. Minimize added sugars.

This is difficult at first but will really make a huge difference. Try to minimize all sugars. Cakes, candies, breads, crackers, pastas, etc. all have high amounts of processed starches and sugars (and yes, I know they are usually around the firehouse).

Here's why sugary foods are bad for you. First, if you eat a little sugar, you crave a bunch more. Sugar also triggers the body to store more fat. There has been lots of research coming out lately that has linked most of the illnesses we see today (including cancer, disease, etc.) to excessive sugar intake. Choose foods with the least amount of sugar, if a product has more than 10 grams per serving and no fiber, put it back.

10 REASONS FIRST RESPONDERS NEED TO REDUCE SUGAR INTAKE



Control sugar addiction

Sugar can be addictive and it may trigger brain neurochemical alterations.

Healthier skin

Too much sugar can lead to yeast overgrowth, inflammation, and hormone imbalance, all of which can lead to dry skin, acne, eczema, and other skin conditions.

Decreased risk of heart illnesses

The research investigated that people who consumed 25% of their daily calories from added sugar were twice as likely to die from heart disease as those who consumed less than 10%.

Restore the gut flora

Sugar is one of the foods that irritates and inflames the lining of your intestines and stomach. It could cause stomach discomfort, acid reflux, bloating, and uneasy bowel motions.

Lessen the risk of cancer

Excessive insulin levels are linked to an increased risk of cancer.

Strengthening body's immunity

Sugar triggers inflammation, and there's a lot of evidence that it impairs the immune system.

Decrease chances of obesity

Sugary beverages and snacks contribute empty calories to your diet, leading to additional (empty) calories being consumed.

Decelerate the aging process

Sugar (glucose) restriction will lengthen life and reduce aging-related symptoms.

Prevent diabetes

Insulin is required to transport sugar from the bloodstream to the muscle, where it is burnt for energy. You can develop insulin resistance and type 2 diabetes if you consume too much sugar.

Tips to Reduce Your Sugar Intake

- This sounds obvious but the first and best thing you can do is make some conscious efforts to just eat less sugar: reduce cakes, cookies, sugary cereals, desserts, etc.
- Find the hidden sugars. Read labels, sugar is hidden, and it often replaces fat in low-fat/fat-free foods and you will find it in things that can really be made from just a few ingredients like nut butters, breads and salad dressings. Check nutrition labels to help you pick the foods with less added sugar or go for the low-sugar version.
- Eat whole, real foods. This goes along with Step 2. If you have a sweet tooth, try satisfying your cravings with sweet foods like fruit. When you do eat packaged foods, check the ingredient list and know the various names for sugar so you can spot it in the foods you're eating. Remember that low fat/fat-free often means high sugar.
- Instead of sugary, fizzy drinks and juice drinks (soda), go for water. If you take sugar in hot drinks or add it to cereal, gradually reduce the amount until you can cut it out altogether!
- Reduce desserts either in frequency or amounts. It's alright to indulge occasionally, try to mind portion sizes when you do.

Get educated, read labels, ask questions and [Click Here for a great post on "How to Reduce Sugar in \(and out\) of the Firehouse."](#)

Step 4. Plan, plan, plan and prepare meals.

This is such a huge part of staying on track when you are trying to eat clean. It's when life is busy, you're super hungry, and have nothing ready to eat... That is when bad decisions get made. We grab the less-than-nutritious processed foods because let us face it: they are quicker and easier. If you plan for those moments, you will be less tempted to eat the foods you are trying to avoid.



Preparing your own food makes it a lot easier to plan, and that helps you control what you eat most of the time. If you spend one day preparing a week's worth of breakfasts, lunches, and dinners, you will not need to think about your meals again till the next week.

I like to do my meal prep on Sunday or Monday night. I try to prepare some menu options and then cook up some healthy meals and put them in Tupperware for later in the week. I also like to have vegetables like carrots, celery and cucumbers sliced and some hummus ready for a quick snack. I honestly believe that the best way to keep the food you eat healthy is to make it yourself. That is why I like to cook at home and at the firehouse. If preparing a full week of meals seems daunting, make lunch and dinner at home for the first 3 days and see how it goes!

Meal prep. Meal prep comes in many forms. Some like to cook the same meals for the entire week, while others will double what they cook for dinner to eat for meals the following day. No matter what your preference is, set yourself up on the right foot during a busy week and plan out your meals prior. If you choose to plan daily meals, at the beginning of the week decide on your proteins, vegetables, and starches. Grocery shop for the week when you have made your list and then decide the night before what you will have the next day to ensure you have everything you need. Grilling chicken, beef, or fish is quick and requires little prep if you have a gas grill, roasting vegetables in the oven on broil with olive oil, salt and pepper can be done in 10 minutes, and potatoes in the microwave takes 3-4 minutes tops which can give you a full meal in under 30 minutes. Crockpot meals are also an excellent way to plan and have leftovers for lunches or dinners the following days. Instapots or Air Fryers are extremely fast at making meals in no time as well. Make double or triple for dinner to ensure you have leftovers for meals the following day.



The key here is to plan for the week, so you have all the ingredients you need without having to make stops at the grocery store during the week. However, when “life happens” and you need to make a stop, whether you have kids in tow or not, investigate stores offering online ordering with curbside pickup! This is a fantastic way to cut time in the store (and unnecessary purchases). Some stores do not charge for this amenity either!

5. Find some healthy go to snacks (and have them handy).

In addition to preparing your meals at home, you need some go to nutrition for work and for the road. One of the reasons people fail to see results when they start a fitness program is because they do not keep their nutrition in check. The goal of the GET FRF Workout Program is to provide you with every resource possible to combat against all those excuses that have been holding you back. A big excuse for not eating healthy is not having healthy food choices around. Well, you no longer have that excuse!

Prepare your meals (step 4) then find some healthy snack to keep on hand. I included a “healthy snack options” hand out in Step 3 of the GET FRF portal. Make sure you download and view that resource. Some athletes in the past have printed that out and used it as a reference when they were at the station or in their car. Some of the items on that list include nuts and seeds, dried fruit, or bars such as Kind bars and Rx Bars, ones with minimal ingredients. If you are traveling in your vehicle, more gas stations are offering healthier options to include Greek yogurt (low sugar), veggie and fruit packs, prepackaged salads, prepackaged hardboiled eggs, and nuts and seeds. When searching for a healthy snack always pair a carbohydrate and protein. For example, a piece of fruit with a plain Greek yogurt or 1 to 2 ounces of nuts with fruit is a great snack. Grabbing items with simple sugars such as candy bars and gummy candies provide no nutritional value leaving you hungry. If stopping at fast food restaurants, choose grilled items over fried and opt for the salad or fruit as a side.



[CLICK HERE FOR THE FRF TOP 10 SNACKS FOR FIRST RESPONDERS.](#)

One more point about snacking. I know that cakes, cookies, and baked goods are common around the firehouse (and a lot of houses). Remember this: Just because it is there does not mean you have to eat it! You can also do what I do when I enter the firehouse (you can do this at your own home) ... I take the baked goods and put them high in the cupboards, out of sight, out of mind. Use these snack options and plan for your nutrition success.



Step 6: Follow the 90% rule.

For 90% of the time, you will follow these five steps to a tee. The other 10% I want you to cheat... Yep cheat. There are, however, some guidelines to the cheat meal (keep reading).

Now, you can get away with 80--90%. But, the closer to 90 or even 95% you get, the better the results. If you can follow your plan 90% of the time, you will soon see unwanted fat melt off your body. However, if you find yourself breaking these rules more than 75 to 80% of the time, your chances of failing increase significantly. Just saying...

Here is the catch about eating a cheat meal. Make sure you do the math and determine what 10% of the time really means. For example, if you are eating 4 meals/snacks per day for 7 days of the week – that is 28 meals a week. 10% of 28 meals is about 2 or 3 meals. Therefore, you are allowed to “break the rules” 2 or 3 meals each week (I would prefer 2).

Do not binge — schedule! Your 10% meals should not include downing an entire pizza, followed by a full box of Krispy Kreme donuts. Binge eating can rapidly destroy your progress and make you feel like crap, let us be clear on that. And, a day long binge is not the equivalent of “one cheat meal.” Rather,

your 10% meals should include some foods, in reasonable quantities, that might not normally fit into your plan.

This might include a couple slices of pizza on a Saturday evening, and a beer or glass of wine Wednesday, or some chocolate on Monday morning. And the best way to make sure you do not go overboard is to schedule your 10% meals. I suggest that you pick a day and a meal and schedule it just like you will be scheduling your exercise days. This will keep you committed to your eating plan as well as have you looking forward to something different.

I know these can help, take control of your nutrition and start eating like a Fire Rescue Athlete! Consume whole foods that are high in fiber and low in sugar, such as lean protein sources (lean beef, chicken, fish, and whey protein), fruits & vegetables (oranges, apples, strawberries, blueberries, broccoli, peppers, asparagus, carrots, cauliflower), nuts (almonds, sunflower seeds, & walnuts), and whole grains (quinoa, and tubers). Plan for success and follow these steps 90% of the time.

If you have a good handle on the above six steps, then read on to continually improve your nutrition.



Bonus Section- Additional Resources and Nutrition Tips

Here are some great added resources to help you learn more about portions, macros and supplementation. Please use the following information “after” you obtain a good handle on the above-mentioned nutritional steps.

Building a Solid Nutrition Foundation

Focus on eating fruits and vegetables, reduce your added sugar intake, eat a good protein with every meal and monitor your portions. Without these initial base steps any amount of supplementation is going to be a waste of time and effort. After you successfully build some healthy nutritional habits the next point of focus should be to understand macros (carbs, fats and proteins) and adjust them based on your body type and your fitness goals. For example, if your goal is for performance, you must make sure you are getting enough carbohydrates for energy, if it is for fat-loss you need protein to help build muscle and burn calories. If general health is your goal, you need to make sure you are eating enough fats for your body to function.

To understand more about macros and how to adjust them you can [click here](#) for a great article.

Some information on Supplements

The one thing you must always keep in mind when considering supplementation is that you cannot supplement for a poor diet. This is really the "golden rule" for supplementation. If you think you can eat sweets, not hydrate well, and not watch your portions then take protein shakes, fat-burners and pre-workouts and still make fitness progress, you are sorely mistaken...

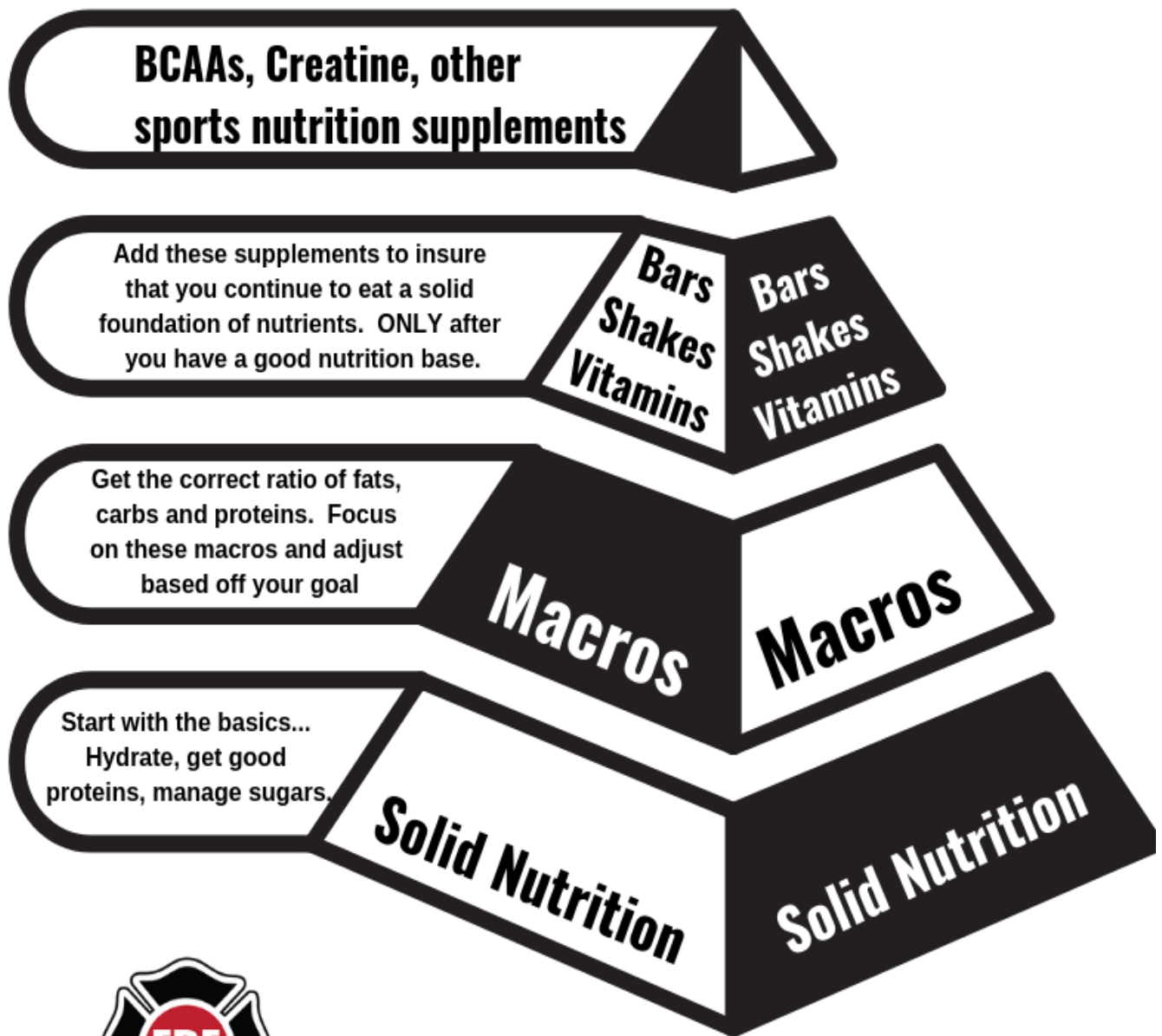
First, if you are that person that eats like crap and walks around with a shake bottle all day, please stop! Second, before you even think about taking any supplement you must get control of, and build, a solid nutritional foundation (see above).

What supplements to take.

Now, if you have your basic nutrition under control, you understand and eat the proper macros, then there are some basic supplements that could help you maintain that good level of nutrition and help you fill in any nutritional gaps.

- The first is a [multi-vitamin](#) or a ["green" food supplement](#).
- The second is a [protein supplement](#).
- The third is a [fish oil supplement](#).
- The fourth is a [Sleep aid supplement](#)
- The fifth is a category of sports supplements ([BCAAs](#), creatine, caffeine)

*****Please consult your physician or other qualified health care professional on any matter regarding your health or wellbeing, especially before taking any nutritional supplements. Remember, the reader is responsible for consulting with his or her own health care professional on any matter raised within this blog (just saying). *****



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Nutrition Pyramid

[Multivitamin or a "green" food supplement](#)

The recommended fruit and vegetable intake is at least five servings per day; however, only 3 percent of men and 7 percent of women meet even these minimums. And that is where the multivitamin or "greens" supplement can help. Multivitamin supplements have been endorsed by the most respected medical organizations in the world for their ability to help reduce the risk of nutrient deficiency. Ideally, most of your nutrients should come from a healthy diet rich in fruits and vegetables. A multi or "greens" supplement ensures that you get all the essential vitamins and minerals recommended for each day, keeping your engine running smooth and adding protection against chronic illnesses. These vitamin packed options will ensure that you get the vitamins needed to protect against chronic illnesses and inflammation. Just remember, you cannot help others when you are sick and tired. When it comes to finding a good vitamin or greens supplement, make sure you do some research and find one that works for your goal and is from a reputable company.



[Protein supplement](#)

Proteins have an overall benefit on physical activity and overall health. Protein supplementation is not entirely necessary if you get enough protein from the foods you eat, like lean meats, chicken and fish. But, since most people are crunched for time, they find themselves eating too little protein. That is why adding some quick high-quality protein can be helpful, especially after a fire call or workout. As with any supplement, do some research to find one that tastes good yet does not have a ton of added sweeteners and sugar. I do use a protein supplement in my post workout shake, it tastes good and has some very good ingredients ([click here for more information](#)).



Fish oil supplement

You may have heard a lot about Omega-3's. And fish oil is the key source. There is a ton of incredibly positive research on fish oil supplementation, it has been shown to be great for fat loss, and it has even been shown to improve mood and motivation. Fish oil is rich in DHA and EPA, two powerful fats responsible for things like: increased metabolic rate, improved fat burning, and reducing our risk for a host of diseases (cardiovascular disease, cancer, and diabetes). In addition, the minimum recommended EPA and DHA intake is 900 mg per day, but the average North American gets only 300mg per day, 1/3 of what is necessary for good health. And that's where fish oil supplements come in. There are a lot of these products on the market, do some research and make sure you use one from a reputable source and one that does not give you the "fish" burp.



Sleep Aid Supplement

Recovery begins with healthy sleep and curbing chronic inflammation. It is difficult to get on consistent sleep pattern as a firefighter, EMT and/or medic. The late-night calls, long shifts, and stress from calls can wreak havoc on sleep. Poor sleeping habits and inadequate sleep does not just lead to

lethargy and a lack of energy. Lack of sleep is a major underlying cause for a host of problems in the fire service. Thus, it is important to try to get as much sleep and recovery as possible. Research supports that magnesium, glycine, zinc, vitamin B6, GABA, and melatonin are elements that can help support good quality sleep. Do some research for yourself before trying any sleep aid. I personally use one on the days I get off shift to help my sleep quality.

I found a product called [NightGainz](#) from Paragon Fitness and Nutrition that was developed for first responders to provide the support needed to get quality sleep ([click here for info](#)).



Sports Nutrition Supplements

There is a group of supplements on the market that are in the category of sports nutrition supplements that claim to improve exercise (among other things) performance. Last I checked there were 60,000 products in this category and growing every day. And the claims that these supplements make are in most cases not backed by the FDA nor research. You must be careful and do your research if you are dabbling in any of these supplements. **Again, I must emphasize that none of these supplements will do you any good if you do not have a good nutritional foundation.**

From my research and experience working with athletes in and out of the fire service, I found a couple of sports nutrition supplements that can help boost exercise performance and help with recovery. These supplements work by supplying amino acids, carbohydrates, and/or other ingredients – during the workout itself – to enhance blood flow, to boost oxygen delivery to working muscles, and to kick-start recovery. Here is a summary of these products.

- Creatine- Research can support that continual, low dose, creatine supplementation may be important for good health as well as athletic performance. While creatine has been discussed in the athletic context quite extensively, it has some amazing regenerative effects on all tissues of the body including the brain. Use caution as some [creatine](#) can cause digestive issues.

- BCAAs- BCAAs provide the basis for protein synthesis and energy production. Because BCAAs are important to muscle tissue, and because they help maintain blood sugar levels, supplementing with them can support and improve workouts. Consuming a carbohydrate, protein, and amino acid beverage during and after training can induce an insulin response, which helps transport BCAAs into cells. Thus, BCAA supplementation may lower lactate levels after resistance training and improve muscular oxidation thus aiding in recovery. As with any supplement, be careful with added sweeteners and sugars. Check the ingredient lists and do your research. Here is one I found that works well and has some good ingredients ([click here](#)).
- Caffeine- Research on caffeine shows that it enhances power output when consumed in high doses (400-500mg) before training, although most folks will do fine with around 100-200 mg (the equivalent of 1 to 1.5 cups of coffee), especially if they are not regular consumers.

There are other supplements that I could add to the list. But, for those wondering if supplements are worth a try, there is enough information to steer you in the right direction. Remember, before you even think about supplementation, you must have a solid nutritional base. And, if you are going to supplement, make sure you do your homework and research them.

Counting Calories, Portion Control and Macros.

Do you have to count calories to make fitness progress? I get this question a lot on the Fire Rescue Fitness [Blog](#) and in seminars and presentations. I do believe that logging your food is one of the best ways to learn about the macros (fat, carbohydrates, and fats) and calories that you are consuming. Logging foods also forces you to read labels and discover what is in the foods you eat and what a serving of that food really is. These are all valuable lessons that can help you decipher healthy from unhealthy foods and serving sizes. So, I recommend that you do log your foods occasionally, to make sure that you understand what and how much you are eating.

I also know that counting calories all the time can be frustrating and impractical. That's why I like to use a portion control guide. It is a simple, customizable "hand portion" method that makes it easier to get the right amount and balance of food at every meal. I use this guide for most of my meals and then every week or two I will log my foods to make sure I am staying on track with my goals.

This handy infographic (next page) shows you how to use your hand to measure portions. Use this as your guide.

PORTION CONTROL GUIDE

SKIP CALORIE COUNTING. TRY THIS METHOD INSTEAD.

Most people think controlling portions means counting calories or macros, but we think there's another way. Try our (much easier) hand portion system.



YOUR HAND IS YOUR PORTIONING TOOL

Your hand is proportionate to your body, its size never changes, and it's always with you, making it the perfect tool for measuring food and nutrients—minimal counting required.



A portion of protein =
1 palm



A portion of
vegetables = 1 fist



A portion of carbs =
1 cupped hand



A portion of fats
= 1 thumb



**Courtesy of Precision Nutrition
and Fire Rescue Fitness**












Consider this your visual guide to eating portion sizes that serve your health and fitness goals—not complicated calorie math required.

Use this next infographic (next page) to help you determine what and how much of certain foods to eat based on your goal. If you are trying to lose weight, follow the top row for portions and servings. And, if you are trying to improve your health, follow the second row.

Portion Control Guide for the Firehouse (or any house).

Based on eating 3 meals per day. Use your hand to determine serving sizes and your goal to figure the number of portions per meal. If your goal is to lose body fat and weight follow the top line below. If you are new to this type of portion control, follow the yellow line below. You can make adjustments based on your progress and how you feel through the day.

 Goal: Lose body fat and overall body weight Preference: Balanced	PROTEIN	VEGETABLES	CARBOHYDRATES	FATS
	E.g. meat, fish, eggs, cottage cheese, Greek yogurt, tempeh, tofu	E.g. broccoli, spinach, squash, carrots, tomatoes	E.g. grains, potatoes, beans, fruits	E.g. oils, butters, nut butters, nuts, seeds
Goal: Improve health and maintain body weight Preference: Balanced <small>If you're new to hand portions, this plate may be a good place to start.</small>				
				

Courtesy of Precision Nutrition

Hand Portion FAQs



Cooked or uncooked?

Gauge portions in the form you plan to eat them. Hand portions are for plating your food.



How do I count mixed-food meals, like chili?

Don't overthink it.
• Guesstimate your portions.
• Eat mindfully, paying attention to your fullness cues.
• Add a side of veggies (and maybe extra protein).

And if you want a FREE personalized nutrition plan that gives you the appropriate hand portions for your specific body, goals, lifestyle, and eating preferences, check out the [Precision Nutrition Calculator](#). This is the same guide I use to figure out macros.

Apply all the above tips and I guarantee you will feel better, look better, and most importantly perform better. Let me know if you have any questions and/or comments.

Time to GET FRF,

Aaron Zamzow

PS- There is another page of even more resources and links to help improve your nutrition...

Additional FRF Nutritional Resources and Links

Precision Nutrition (I am Precision Nutrition Certified; I highly recommend their programs):

- [How to Fix Your Diet](#)
- [Calorie Control Guide](#)

Here is a great post about foods that will help combat the number one killer of firefighters.

[Four foods that help firefighters combat heart disease...](#)

Healthy Nutrition Tips for the Firehouse (or any house).

<https://firerescuefitness.com/2018/05/healthy-nutrition-tips-for-the-firehouse-or-any-house/>

If you drink soda, this will hopefully help you stop.

<https://firerescuefitness.com/2016/03/firehouse-nutrition-diet-soda-bad/>

Here are some great rules for Firefighter Fat Loss. Some of them are covered in the materials listed above but there are several tips to help you get leaner.

<https://firerescuefitness.com/2018/02/10-simple-rules-firefighter-fat-loss-2018-edition/>

A great post that can help you manage portions and avoid over-eating.

<https://firerescuefitness.com/2021/07/tips-to-help-control-portions-in-and-out-of-the-firehouse/>

