Indianapolis Metropolitan Police Department

Nutrition Guide

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Introduction

A successful career in law enforcement requires officers to face unpredictable demands which require quick decisions and physical exertion. Officers are better able to meet these daily demands when they obtain adequate rest, manage their stress, exercise regularly, and consume nourishing foods. Focusing on proper nutrition and adequate hydration are habits that not only promote optimal job performance and safety, but also lifelong health and well-being. This is especially important since law enforcement officers face a greater risk of a variety of health concerns throughout their career including, but not limited to:

Cardiovascular disease
The average age of a first heart attack for an officer is 49 versus 66 for the civilian population.

High cholesterol
Due to unpredictable schedules and shift work, officers may rely on more packaged, processed and fast foods. These foods can be high in saturated fats and trans fats, and low in fiber, leading to higher cholesterol levels.

High blood pressure
High levels of stress, poor sleep, increased intakes of caffeine, and decreased consumption of calcium, potassium and magnesium-rich foods can increase blood pressure.

Type 2 diabetes
Poor dietary habits, physical inactivity, and being overweight can increase an officer's risk for developing Type 2 diabetes.

Metabolic syndrome
This is defined as a collection of concerns within one individual, including excess abdominal weight, high triglycerides, low HDL cholesterol, elevated blood sugars, and high blood pressure.

Behavioral health concerns
The mental and physical stress of law enforcement and repeated exposure to trauma can lead to depression, anxiety, acute stress reactions, post-traumatic stress, and suicidal ideation. Self-medication with alcohol and drugs can result in substance abuse disorders.

Sleep disorders
Sleep disorders are highly prevalent in officers and include sleep apnea, insomnia, shift-work disorder, and restless leg syndrome.

Musculoskeletal injuries
The intermittent high intensity and dynamic work environment of law enforcement leads to a high incidence of musculoskeletal injuries. Obesity and deconditioning are also strong predictors of musculoskeletal injuries.

Cancer
Chronic exposure to stress, along with a predisposition to dietary issues, gastrointestinal disorders, and metabolic syndrome put officers at risk for many cancers.

The goal of this nutrition guide is to provide education and resources to officers, from the start of the academy through retirement, to optimize health and job performance.

Energy balance

To stay healthy and perform optimally, it is important to understand the concept of energy balance. An individual is in energy balance when energy intake (calories from the food we consume) is equal to energy expenditure (calories expended throughout a day). Energy expenditure is comprised of several components including:

Basal metabolic rate
Energy needed for the body to function properly and maintain basic physiological functions. For most individuals, this is the largest contributor to energy expenditure.

Thermic effect of activity
Structured physical activity plus all other movements of the body, including work, leisure activities and other everyday movements. This is typically the second largest contributor to energy expenditure and can exceed basal metabolic rate in very high-intensity exercise situations.

Thermic effect of food
Energy for digesting, absorbing, transporting, metabolizing, and storing foods. This is the smallest contributor to energy expenditure.

All recruits will have their body composition measured with their pre-employment screening at Ascension Public Safety Medical (APSM). All veteran officers and executive staff can schedule an annual physical with APSM, which will also include the body composition measurement. The assessment will provide an estimated basal metabolic rate (BMR).

Total daily calorie needs can be calculated by using the following formula, which includes BMR and an activity factor:
BMR x activity factor = total daily calorie goal

As a recruit moves into their FTO phase and finally onto their permanent assignment, energy needs will change. The shift, district, and an officer's personal exercise regimen will all need to be considered when determining which of the following activity factors and calculations most accurately estimate individual needs.

Low-intensity calculation (sedentary to light workouts, 3-4 days per week)
Officers working in administrative roles, detectives, or patrol officers who spend a majority of their shift seated in their cars will require fewer calories per day. These individuals should aim for the lower end of the following range. Using the 1.5-1.6 activity factors may be appropriate for officers who engage in low-intensity workouts, 3-4 times per week, but otherwise are sedentary.

Low-intensity calculation: BMR x 1.3 - 1.6 = calorie target

Moderate-intensity calculation (active daily, moderate to hard workouts, 4-5 days per week)
Moderate-intensity calculations are appropriate for recruits during the Academy. Successfully completing and recovering from physical training and survival tactics will require a significant number of calories. Officers who are assigned to an active district, who engage in a structured exercise program 4-5 days per week, and recruits throughout most of the Academy will likely require calories in the moderate-intensity range.
Moderate-intensity calculation: BMR x 1.6 - 1.9 = calorie target

High-intensity calculation (very active, hard to extreme workouts, 5-6 days per week)
Veteran officers who are active daily and engage in intense personal workouts will fall into this category of energy needs.

High-intensity calculation: BMR x 1.9 - 2.2 = calorie target

These formulas are meant to provide general guidance on daily calorie needs. Each recruit/officer will need to understand how to fine-tune their intake on any given day to meet their true individual needs (refer to Fine-tuning). Individuals may find it helpful to keep a food log daily to gain awareness of their current intake and areas for improvement. Some individuals prefer to keep a paper log while others may prefer a tracking app. MyFitnessPal (MyFitnessPal.com) and Cronometer (Cronometer.com) are two of many food tracking apps which are free and easy to use. Calculated energy (and macronutrient) needs can be entered into the app and monitored daily.

For officers who have not yet scheduled their APSM physical, and therefore do not have their BMR, the calculations presented in Appendix A can be used to calculate their daily energy needs.

Fine-tuning

While numbers can be plugged into activity calculation formulas to estimate daily calorie needs, they are still an estimate. Each recruit/officer will need to be in tune with their bodies each day and make appropriate adjustments to their intake. The following hunger/satiety scale is a way for individuals to get to know their body, listen to internal cues, and adjust daily caloric intake appropriately.

Hunger/satiety scale

(Evaluate yourself before and after meals and snacks)

1 = Famished, starving

2 = Headache, weak, cranky, low energy

3= Stomach growling, ready to eat

4 = Beginning of hunger, could wait to eat

5 = Not hungry, not full

6 = Starting to feel satisfied, could eat more

7 = Feeling satisfied and energized

8 = Full, don't need any more food

9 = Very full, don't need any more food

10 = Bursting, painfully full, stuffed

In general, eating should be initiated around a 3 and stopped around a 7. There are times, especially during intense academy days, that reaching an 8 will be required to consume enough total daily calories. However, reaching a 9-10 can be a signal of consuming too much or consuming too many calories at one meal or snack. Dropping to a 1-2 on any type of day can indicate low-calorie intake or waiting too long to eat. If recruits/officers are chronically under-fueled and hovering between 1-5 all day, health, well-being and ability to perform will suffer.

Some signs and symptoms of chronic under-fueling include:

- Fatigue
- Slow
- Tight
- Lightheaded
- Dizzy
- Nauseous
- Frustrated
- Sore
- Headaches
- Poor sleep
- Sick more frequently

On the other end of the spectrum, signs and symptoms of chronic over-fueling (always between a 5-10) include:

- Fatigue, feeling drowsy
- Stomach and intestinal discomfort
- Burping
- Heartburn, acid reflux
- Temporary feelings of being hot, sweaty or dizzy
- Sleep disruption
- Weight gain
- Poor health outcomes/lab values (e.g., higher blood sugar, cholesterol, blood pressure)

If the above symptoms are becoming chronic issues, this can indicate a nutrition or health concern which should be discussed with the Wellness Unit or a registered dietitian to determine how to appropriately adjust calorie intake.

Eating frequency

In general, an individual will need to eat regularly (approximately every 2-4 hours) to keep their body energized and following their hunger/satiety cues. Consuming three meals per day is the foundation of a healthy diet. As energy needs increase, 1-3 snacks per day will also be required. Below is an example meal and snack schedule for a recruit during the academy:

- 5-5:30 a.m. breakfast
- 8-8:30 a.m. snack
- 11 a.m.-noon lunch
- 2-4 p.m. afternoon snack
- 6-7 p.m. dinner
- 8-9 p.m. snack, if hungry

An example eating schedule for a patrol officer on day shift might unfold as follows:

- 4:30 a.m. snack
- 7:30 a.m. breakfast
- 11 a.m. lunch
- 2 p.m. snack
- Opportunity for exercise
- 5 p.m dinner

Each recruit and officer will need to determine the best meal and snack regimen for their individual needs, daily schedule, hunger cues, and personal health goals. Fueling regularly will be important for all recruits and officers since daily schedules can be unpredictable and demanding. If a meal or snack is missed and unexpected situations arise, energy levels will plummet, and mental and physical performance will suffer.

For an example meal plan for recruits and veteran officers, please refer to Appendix B.

Weight loss and weight gain

For recruits/officers who desire weight loss, approximately 300-500 calories per day should be subtracted from total calorie estimates. This slight calorie deficit will help individuals lose weight gradually and safely. However, recruits/officers must continue to listen to their body and hunger/satiety cues to ensure adequate consumption and optimal physical/mental performance.

There are other individuals who need to gain weight or tend to lose weight easily and may need to increase their calorie targets from the calculated estimates. These individuals should add 300-500 calories per day and then observe how their body responds. If weight gain is not achieved or weight is lost, add another 300-500 calories per day and continue to assess.

Injury adjustments

Musculoskeletal injuries can happen during the Academy or throughout an officer's career. Typically, there is a period when rest or immobilization is required for healing. During this time, workouts are modified or eliminated, which lowers total calorie expenditure. However, the healing process requires energy for muscles, bones, and connective tissue to fully repair and restore. Therefore, it is appropriate to lower calorie intake during times of minimal exercise, but do not allow calorie intake to plummet. The reduction of calories will depend on the nature of the injury and physical limitations. It is important to continue to consume three meals per day, with snacks being added, if hungry. There are severe injuries, brain injuries, and surgeries which require more total calories than prior to the injury. Consult with a physician and/or dietitian for assistance in developing an appropriate calorie goal during these extreme situations.

The impact of stress on eating

Acute or chronic stress can influence an officer's ability to appropriately listen and respond to their hunger cues. For example, some individuals lose their appetite when stressed and therefore put themselves at risk for under-fueling. Other officers may find that they are craving specific foods or beverages, eating when they are not hungry (ranking around a 5 on the hunger/satiety scale), or eating until full or very full (8-10 on the scale) to manage their stress. In these situations, the ultimate long-term solution is to improve an officer's stress management toolbox.

In the short term, the following tips may be helpful:

- Ensure that home-prepared meals and snacks are readily available, to reduce impulse food purchases
- Focus on consuming adequate water daily
- Pause before consuming a food/beverage to evaluate whether fuel is needed. Changing stress eating habits is a process that can take a long time to address and change. Officers should be patient with themselves, diligent with finding solutions, and seek help from a dietitian and/or mental health counselor.

Macronutrients

Macronutrients are the nutrients which have a caloric value and the body needs in large quantities daily.

The three macronutrients include:

- Carbohydrates
- Protein
- Fat

A healthy diet includes all three macronutrients in daily meals and snacks. It is important to eat a variety of foods so that micronutrient needs are met as well. Micronutrients are needed daily in smaller amounts and include vitamins and minerals. When the diet is balanced and includes a wide variety of foods, the body is primed for optimal physical and mental performance, and recovery.

The following sections are intended to help recruits/officers estimate macronutrient needs. Keep in mind that various medical conditions may require adjustments to these recommendations. If an individual has questions or concerns about how to adjust the following information for their unique needs, a member of the Wellness Team can connect them with a registered dietitian.

Carbohydrates

Carbohydrates are an essential physical and mental fuel, especially on demanding training days. The body turns carbohydrates into glucose, using the sugar for energy for cells, tissues, and organs. It is important to monitor carbohydrate consumption as the depletion of glycogen (stored glucose in the liver and muscles) and low daily intake will decrease daily energy, physical and mental performance, and recovery. Carbohydrates are found naturally in a wide variety of foods, including fruits, vegetables, potatoes, grains, beans and dairy products.

Healthy sources of carbohydrate:

- Oatmeal
- Brown rice
- Quinoa
- Whole-wheat breads and pastas
- Potatoes and sweet potatoes
- Fruits
- Vegetables
- Beans and lentils
- Low-fat milk and yogurt

When choosing carbohydrate-rich foods, officers should aim for sources which are high in fiber. Dietary fiber, a type of complex carbohydrate, is found within plant cell walls. There are two types of fiber: soluble and insoluble. Soluble fibers are found primarily in oats, barley, dried beans/lentils, and fruits and vegetables. Insoluble fiber sources are primarily whole-grain products, nuts, seeds, and vegetables. A high-fiber diet can help prevent high cholesterol, regulate blood sugar levels, treat constipation and other intestinal issues, and increase satiety after meals, which may aid in weight management over time. Refined carbohydrates from sugary drinks, fruit drinks, sweetened coffee or tea, candy, desserts and processed grains should be minimized. The American Heart Association recommends limiting added, refined sugars to 25 grams per day for women and 36 grams per day for men. To learn more about the American Heart Association's guidelines, please visit **heart.org/en/healthy-living/healthy-eating/eat-smart/sugar/added-sugars**.

How much carbohydrate to eat daily

The minimum amount of carbohydrate for the body to function properly is estimated at 130 grams per day. However, this amount does not include the amount needed for an active individual and certainly does not include the needs for the Academy. Carbohydrate requirements can be calculated based on the percentage of total calories. The goal for active individuals is approximately 45%-60% of total calories. The lower end of this range would be appropriate for officers who are less active, while the middle to higher end would be required for intense training days during the Academy.

Keep in mind that modifications to this recommended range may be indicated based on individual goals, health concerns, and personal exercise programs. There are some situations when a carbohydrate intake slightly outside of the recommended range might be indicated. For example, if calorie needs are lower due to the goal of weight loss or blood sugar management, officers may need to focus on 40%-45% of their total calories from carbohydrate. On the other end of the spectrum, if an officer is training for an ultra-endurance event such as an Ironman triathlon, multi-day biking adventure, or an ultramarathon, carbohydrate needs are high and may approach 60%-65% of total calories.

Two example calculations are listed below (carbohydrates contain 4 calories per gram):

If we assume that Officer A, who engages in their own workout for 30 minutes but is fairly sedentary during their shift requires 2,000 calories and 45%-50% of calories from carbohydrate:

- 2,000 calories x 0.45-0.50 = 900-1000 calories from carbohydrate
- 900-1,000 calories from carbohydrate ÷ 4 calories per gram of carbohydrate = 225-250 grams of carbohydrate per day

If we assume that Recruit A, during the first few months of the academy, requires 2,800 calories and 50-55% of calories from carbohydrate:

- 2,800 calories x 0.50-0.55 = 1,400-1,540 calories from carbohydrate
- 1,400-1,540 calories from carbohydrate ÷ 4 calories per gram of carbohydrate = 350-385 grams of carbohydrate per day

Protein

Proteins have a role in nearly all major bodily functions. They provide structure to muscles and other tissues, aid in the production of hormones and enzymes, assist with fluid balance, and serve as an energy source. Proteins are constantly being turned over in the body, therefore, adequate daily consumption is critical.

Proteins consist of a series of amino acids. Twenty different amino acids are available for use in the body. Nine of these are considered essential amino acids since the body cannot produce them in sufficient quantities to meet daily needs. To consume adequate amounts of all essential amino acids, an officer should focus on a wide range of protein-rich foods, each providing their unique series of various amino acids. Protein-rich foods include meats (e.g., chicken, turkey, beef, bison, pork), fish, eggs, nuts, beans, soy products (e.g., tofu, tempeh, edamame), and dairy products.

Healthy sources of protein:

- Lean cuts of beef
- Turkey, chicken
- Bison, venison
- Fish
- Eggs
- Dairy: Milk, yogurt, cottage cheese
- Tofu, tempeh, edamame
- Beans, lentils
- Nuts, seeds

Protein supplementation

For ease and convenience, some recruits/officers choose to consume protein powders, bars, and shakes. While these products can be part of a healthy diet, they should not take the place of whole-food sources of protein. Recruits should focus on including protein-rich foods in their meals and snacks first. Protein supplements can then be added when food is not available or when achieving daily protein goals through whole food is very difficult. If included, look for protein products which contain 20-30 grams of protein per serving with the fewest number of ingredients.

How much protein to eat daily

The minimum amount of protein needed per day for the body to function properly is 0.36 grams per pound of body weight. For active individuals and those with the goal of weight loss or gain, needs increase to 0.60-0.90 grams per pound. As the intensity of training increases, the need for protein will also increase.

Two example calculations are listed below (protein contains 4 calories per gram):

Officer B weighs 175 pounds and requires 0.60-0.70 grams of protein per pound of body weight:

- 175 x 0.60-0.70 grams per pound of body weight = 105 – 123 grams protein per day

Recruit B weighs 175 pounds and requires 0.80-0.90 grams of protein per pound of body weight:

- 175 x 0.80-0.90 grams per pound of body weight = 140 – 158 grams protein per day

If daily intake is being tracked in an app where macronutrient goals can be entered based on a percentage, 15%-30% of total calories would be an appropriate target in most situations. The percentage of calories from protein for officers who are less active will likely be on the higher end of this range since the need for carbohydrate is lower. The percentage of calories from protein will decrease a little for recruits during the academy since more room needs to be made for adequate carbohydrates.

Fat

Fats serve as an energy source during rest and light to moderate activity. Dietary fats also provide essential fatty acids for a variety of physiological functions and add flavor to food. High-fat foods are generally also higher in calories and therefore should be consumed in moderation, especially if a recruit/officer has the goal of losing weight.

There are several different types of fat, including saturated, polyunsaturated, monounsaturated, and trans fats. Trans fats can be found in packaged, processed, and fast foods. These types of fats seem to be the most harmful to health and therefore intake should be minimized. Saturated fats are found in higher fat animal products (e.g., high-fat meats and dairy) and have historically been related to heart disease. Moderate amounts of saturated fat can be included in a healthy diet. The monounsaturated and polyunsaturated fats seem to be the most beneficial for overall health and are found mainly in plant products (e.g., nuts, seeds, avocados, olive oil) and fish. Most Americans need less trans and saturated fats and more monounsaturated and polyunsaturated fats.

Unsaturated sources of fat

- Olive Oil
- Avocados
- Fish (salmon, tuna, sardines)
- Nuts, nut butters (walnuts, almonds, pistachios, Brazil nuts, peanut butter, almond butter)
- Seeds, seed butters (flaxseed, chia seeds, sunflower seed butter)

How much fat to eat daily

For health and performance, recruits and officers should aim for 20%-35% of total calories from fat. The exact percentage to include will depend on personal goals, health concerns, the amount of physical activity, and how much room is left in the diet after calculating protein and carbohydrate needs. For example, the fat percentage might be lower for intense days of physical training which requires a higher percentage from carbohydrate. Officers who are trying to decrease total calories for weight loss or have higher cholesterol levels should aim for the low-end to middle of the target range. Fat intake might be higher in a situation when total energy needs are very high and it is difficult to eat enough carbohydrate and protein without feeling stuffed.

Below are two example calculations for the full range of potential fat needs (fat contains 9 calories per gram):

Officer C requires 2,200 calories per day and needs to lower cholesterol levels:

- 2,200 x 0.20-0.30 = 440-660 calories from fat
- 440-660 calories from fat ÷ 9 calories per gram of fat = 49-73 grams of fat per day

Recruit C requires 3600 calories per day and is having a hard time eating sufficient total daily calories:

- 3,600 x 0.25-0.35 = 900-1260 calories from fat
- 900-1,260 calories from fat ÷ 9 calories per gram of fat = 100-140 grams of fat per day

If a recruit/officer is tracking intake in an app, carbohydrate and protein needs should be entered first, and then the remaining can come from fat. However, adjustments to carbohydrate and protein goals will need to be made if less than 20% of calories are left for fat.

Hydration

It is important to ensure proper hydration during the Academy and throughout an officer's career. Water makes up approximately 50%-70% of total body weight.

Water is a necessary nutrient needed to maintain the proper functioning of the body. Important roles of water include:

- Serves as the body's delivery and waste removal medium
- Involved in various chemical reactions within the body
- Regulates the body's acid-base balance
- Maintains proper blood volume
- Aids in maintaining a stable body temperature

Water loss happens through the process of sweating, breathing, and elimination of urine and stool. When environmental temperatures are high, training intensity increases, and more protective gear is worn, fluid losses through sweat can be significant. Even a slight decrease in hydration status can lead to a reduction in performance, impairment in decision making, and poor concentration. As the level of dehydration increases, the focus moves to concerns about health and safety.

Signs and symptoms of dehydration

- Thirsty
- Dry mouth
- Flushed skin
- Chills
- Dizziness, lightheadedness
- Nausea, diarrhea, vomiting
- Headache
- Urine output reduced
- Reduced physical performance
- Generally feeling ill
- Difficulty concentrating
- Sleepiness

Fluid losses can be replaced through drinking fluids and consuming foods. Drinking plain water, 100% juices, milk, coffee, tea, sports beverages, coconut water, and soda all contribute to an individual's daily fluid intake. Water should be the main, but not the only, source of fluid consumed.

Eating foods with a high-water content can also help restore fluid balance. Fruits and vegetables contain a large percentage of water. Including broth-based soups with meals or snacks can provide not only fluids but also macronutrients, vitamins, minerals, and electrolytes. Some examples of water-dense foods include:

- Watermelon
- Cantaloupe
- Strawberries
- Lettuce
- Celery
- Cucumbers
- Spinach
- Peaches
- Squash
- Tomatoes
- Eggplant
- Grapefruit

Be mindful of caffeine intake

Keep in mind that caffeinated beverages will have a slight diuretic effect; therefore, it is best to choose decaffeinated drinks in most situations. Beverage sources of caffeine include coffee, black or green tea, soda, and energy drinks. Caffeine intake may have beneficial effects, including decreased pain, perceived exertion, and perception of fatigue. However, caffeine intake also has potential drawbacks and can be easily overconsumed.

Concerns regarding caffeine intake include:

- Caffeine is an addictive substance with a variety of withdrawal symptoms.
- Caffeine consumption without adequate fluid intake can cause thermal regulation issues.
- It is a short-term solution for low energy levels.
- Risk for injury can increase, especially if the recruit/officer is not well-fueled.
- Energy drinks, which generally provide caffeine, may also contain unlabeled or unclear amounts of other stimulants.

The consumption of energy drinks is particularly discouraged.

Limit caffeine intake to 200 mg-400 mg per day. Some individuals are genetically slow metabolizers of caffeine. These individuals are more likely to experience negative effects of caffeine such as anxiety, increased blood pressure, and sleep disruption, and therefore, should reduce their daily intake significantly.

Moderate alcohol intake

Beer, wine, and liquor are alcoholic beverages. Alcohol is not a macronutrient (not required by the body) but does provide energy. However, alcohol is not an appropriate source of fuel for a performance diet.

If consumed in excess, recruits/officers may experience the following:

- Decreased endurance and aerobic performance
- Decreased strength and power
- Decreased quality of sleep
- Delayed recovery from training sessions
- Increased fatigue
- Increased risk of dehydration
- Increased risk of illness and injury
- Increased body fat

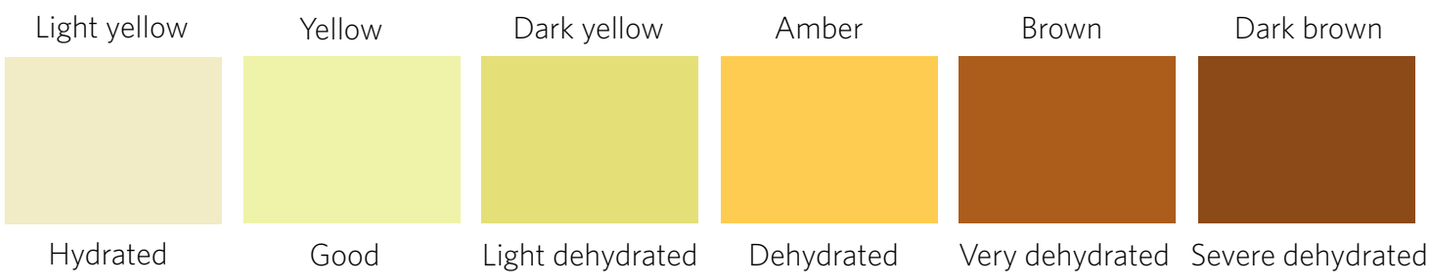
Alcohol consumption can negatively impact cardiovascular, metabolic, and mental health. Recruits and officers are encouraged to limit their intake of alcohol. If alcohol is consumed, please drink in moderation. Moderate alcohol intake is considered two drinks or less per day for men, and one drink or less per day for women. "One drink" is equal to 12 ounces of beer, 5 ounces of wine, and one shot or 1.5 ounces of liquor or distilled spirits.

How much to drink daily

The general daily fluid recommendations for men and women older than age 19 is 3.7 liters and 2.7 liters, respectively. Each recruit/officer will need to fine tune their fluid intake based on their individual daily needs, the environmental conditions, intensity of training, and their individual sweat rate. In general, if individuals urinate every 1-2 hours during the day, they are on the right track with daily hydration. If recruits/officers only urinate every 3-5 hours, they are getting dehydrated and should increase the volume of fluid consumed. If individuals are drinking so much that they are urinating more than once an hour, the volume of fluid consumed is excessive and must be decreased.

The color of urine can also be observed to determine if sufficient fluids are being consumed daily (refer to the urine color chart). In general, if urine color is clear to pale yellow, hydration is on track. As urine becomes darker in color and more concentrated, the individual is becoming dehydrated, and fluid intake should increase. Keep in mind that supplements and medications can alter the color of urine. For example, supplements containing large amounts of B vitamins can cause urine to have a fluorescent yellow color. This darker color of urine can cause individuals to falsely believe that they are dehydrated, even if urination frequency is on track. Therefore, it is best to monitor both the color of urine as well as frequency of urination.

Urine color chart



How much to drink during training/exercise

In addition to the volume of fluid consumed daily, recruits and officers need to consume extra fluid during Academy-related training and personal workouts. The amount to increase will depend on the environmental conditions, exercise intensity, and individual sweat rates. On average, individuals can lose 24-48 ounces of fluid per hour during training. However, based on individual needs and training conditions/intensity, needs can increase to 64 ounces per hour or higher.

Individual sweat rate can be determined by gathering a few pieces of data to plug into the following formula.

Data needed:

- Body weight immediately prior to and immediately following a training session
- Number of ounces consumed during the training session (in between the pre/post-weight)
- The duration of the training session, in hours

Calculation of sweat rate:

1. Pre-training weight in pounds – post-training weight in pounds = pounds of weight lost in one training session
   - *Example: Recruit A weighed 175 pounds before training and 173.5 pounds after training = 1.5 pounds lost*
2. Every pound lost during training is equivalent to 16 ounces of fluid that were missing/should have been consumed
   - *Example: Recruit A lost 1.5 pounds during training x 16 ounces/lb = 24 ounces fluid missing*
3. Number of ounces consumed during the training session + ounces of fluid missing due to weight loss = total ounces of fluid needed
   - *Example: Recruit A consumed 12 ounces of fluid during the 1-hour training session + 24 ounces of fluid missing due to weight loss = 36 ounces total needed during the 1-hour session*
4. Divide the total ounces of fluid needed by the length of the training sessions in hours = number of ounces needed per hour during training of similar intensity and environmental conditions
   - *Example: Recruit A needed 36 ounces total ÷ 1-hour training session = 36 ounces fluid per hour needed for future sessions in similar conditions. Recruit A can multiply 36 ounces per hour by the number of hours, if training for longer periods of time.*

Once data has been gathered for a handful of training sessions, recruits and officers will have an estimate of fluid requirements for future training days and can plan accordingly.

Water is generally the best beverage selection for training sessions lasting 60-90 minutes. There are certain situations when a sports beverage (a drink providing carbohydrates and electrolytes such as Gatorade or Powerade) or an electrolyte-only product (a product without or with minimal carbohydrate) might be indicated. For example, some individuals lose a lot of sweat (>48 ounces in one hour) and/or are salty sweaters (lose a greater concentration of sodium in sweat compared to others). Salty sweaters will frequently notice grittiness on the skin and white streaks on clothing after exercise. These individuals might need to include a sports beverage or an electrolyte-only product to fully meet their needs. Keep in mind that sports beverages are meant to meet an individual's hydration and electrolyte needs during exercise; they are not designed to be consumed with meals or as a daily refreshment beverage.

It is also helpful to consume additional sodium and potassium during meals and snacks on hard training days. Sodium can be easily added through table salt.

Potassium-rich foods include:

- Apricots
- Cantaloupe
- Banana
- Potatoes
- Tomato juice
- Spinach
- Yogurt
- Milk
- Coconut water

Ideally, recruits and officers should follow the daily and during training hydration guidelines. However, if an individual does get dehydrated during one day of intense training, the individual should consume 20-24 ounces of fluid for every pound of body weight lost to fully rehydrate. This fluid should be consumed gradually to aid in optimal absorption and improve gut tolerance. Individuals should not chug fluids, especially plain water, after a hard day of the Academy or individual workouts. Drinking a large amount of fluid quickly after hard training is typically not well-tolerated and can be a cause of hyponatremia (*see below*).

Hyponatremia

It is important for recruits and officers to be aware of a life-threatening condition called hyponatremia. This is a condition defined by low blood sodium levels which can be caused by a sodium deficiency and/or the intake of large volumes of water. It is critical that recruits/officers determine their individual daily fluid needs, requirements during training, and include sodium (and other electrolytes) in their daily meals and fluid selections especially during extended periods of intense training. If recruits/officers are gaining more than 1% of their body weight during one training session, this can be an indication of consuming too much fluid and adjustments should be made to their hourly fluid target.

Some of the signs and symptoms of hyponatremia include:

- Muscle cramping
- Dizziness
- Lightheadedness
- Nausea
- Vomiting
- Headaches
- Swelling of hands, feet
- Mood changes

Meal planning, preparation and enjoyment

Healthy eating is more manageable, sustainable, and cost-effective when individuals are preparing more meals at home. Each recruit and officer will need to dedicate time during their weekly schedules for grocery shopping and food preparation, to realize the maximum benefits of consuming nutritious foods. It is strongly encouraged to involve family members in the planning, shopping, preparation and consumption of meals. By making healthy eating a group project, it is easier to address everyone's needs and preferences, and the time needed to shop and prepare foods is shared.

In addition to preparing healthy foods for the week, each officer will need to purchase a few essential items for preparation, healthy storage, and transport of food:

- **Measuring cups and spoons:** Measuring utensils will be needed to follow and prepare recipes.
- **Food scale:** While a food scale is optional, it can be a useful tool for individuals who are aiming to be precise with their food intake and/or tracking their intake in an app which will require specific quantities to be entered daily.
- **Glass containers:** Glass containers are durable, dishwasher safe, and microwave safe.
- **Cooler for the car:** A cooler will be required to keep food and beverages at a preferred and safe temperature throughout a shift, during any season of the year.
- **Reusable bottle:** To encourage appropriate daily hydration, officers should purchase a sturdy, refillable bottle. Recruits are issued a 1-liter reusable bottle which can be used throughout the Academy. The use of disposable plastic bottles is discouraged due to their cost, environmental impact, and the health concern of chemicals being leached into the fluids they contain.

How to save money on food

It is important for everyone to monitor their budgets and prevent overspending in any category, including food. According to the USDA, as of November 2024, the average cost of eating at home for individuals aged 19-70 ranged from $65-110 per week for men and $60-95 per week for women (for low to liberal food plans; see **sfns.usda.gov/research/cnpp/usda-food-plans/cost-food-monthly-reports** for more information). Each recruit/officer should review their monthly bank statements and receipts and tally their own weekly cost for food. If the total cost is above these stated ranges, individuals should consider the following cost-saving techniques:

- **Plan ahead and make a grocery list:** Take time each week to plan meals and snacks and create a grocery list based on needed items. A list prevents impulse buys and unnecessary purchases (items already stocked in the kitchen or not needed for weekly meal preparation).
- **Buy in bulk:** Items purchased in bulk typically have a lower per-unit price. Consider purchasing items such as spices, oatmeal, brown rice, nuts, seeds and meats in bulk. Meat can be divided into smaller portions to freeze for future use.
- **Buy generic or store brands:** Consider opting for generic or store-brand versions of various products. Many times, these items are cheaper with the same quality and taste.
- **Avoid prepared foods:** Save money by purchasing individual ingredients versus prepared or pre-assembled foods (e.g., pre-cut fruit, assembled salads, chicken salad, prepared foods on a hot bar, etc.). By taking time to meal prep weekly or batch cook, individuals can create and freeze their own prepared foods for fast, easy meals.
- **Join store loyalty programs and use coupons:** Loyalty programs typically offer personalized coupons, savings on weekly items, discounts on gas, and other rewards.

Importance of eating with others

Part of healthy eating is sharing food with others. Eating occasions are meant to be a relaxing and enjoyable time to savor food, and share time with family, friends, and co-workers. It is strongly encouraged for shift-mates to eat together during their shifts. Social engagement with others while eating can help reduce work-related stress and improve overall mental health. Due to shift work and unpredictable hours, it is especially important for officers to eat with other officers since finding time to eat with their families can be difficult.

There may be situations when fellow officers are meeting at a location with few nutritious options. This can be frustrating for individuals who are working hard on making healthier food selections. However, do not allow these situations to prevent social engagement. Below are some tips to manage this type of situation:

- **Make the healthiest choice possible:** For example, if meeting others at a coffeehouse, enjoy a regular or decaf black coffee versus a coffee with cream and sugar. If meeting at a fast food restaurant, order a grilled chicken sandwich versus a fried sandwich with French fries. If meeting at a gas station, select a protein bar, roasted nuts, lunch-meat sandwich, or a protein shake versus pastries, candy bars, or roller hot dogs.
- **Bring your own food into establishments:** If you have packed your own meal, feel free to bring your meal into the restaurant. Most establishments understand the eating challenges of police officers and will not mind outside food being brought in to enjoy with others.
- **Be flexible with food:** Keep in mind that all foods fit into a healthy diet. There are no foods that need to be strictly avoided. Periodically, feel free to enjoy any type of food or meal at any restaurant.

Meal plan, meal preparation recipes, and cookbook ideas

Refer to Appendix B for example meal plans for recruits and veteran officers; Appendix C for meal prep ideas and crock-pot recipes; Appendix D for cookbook and food blog suggestions; and Appendix E for officer's testimonial.

Eating on the go

Healthy snack options

Snacking throughout the day can help to maximize mental and physical performance by maintaining energy balance. During the Academy, recruits will need snacks to meet the high energy needs of tough training days. Patrol officers and detectives need to always have healthy snacks available due to their unpredictable schedules, uncertain breaks for meals, and long hours.

Below are a variety of snack ideas. Some of these suggestions will require a cooler to be available to keep food at a safe temperature.

Non-perishable snacks

- Fresh fruit
- Variety of nuts and seeds
- Trail mix (without chocolate and other candy)
- Nut butter packets (to enjoy with fruit, crackers, whole-grain bread, or rice cakes)
- Tuna, salmon or chicken packets
- Meat jerky
- Whole-wheat crackers
- Pretzels
- Energy bars or protein bars, with basic, recognizable ingredients (e.g., Lara Bars, RX Bars)

Perishable snacks

- Raw veggies with hummus
- Whole-wheat pita bread with hummus
- Yogurt (can be enjoyed with fruit, granola, other whole-grain cereal or nuts)
- Cottage cheese
- Cheese stick rolled with sliced turkey
- Hard-boiled eggs
- Meat and cheese sandwiches
- Homemade chicken salad, egg salad, or tuna salad
- Small portions of leftovers from dinner
- Homemade energy bars or balls (check out the following cookbook for lots of recipe ideas: Power Hungry: The Ultimate Energy Bar Cookbook, by Camilla Saulsbury)
- Homemade protein shakes (see below)

Homemade protein shakes

Chocolate banana shake

- 2 cups skim milk
- 1 banana
- 2 tablespoons almond butter
- 2 teaspoons cocoa powder

Blend and enjoy

- 490 calories
- 27 grams protein
- 64 grams carbohydrate
- 20 grams fat

Greek yogurt shake

- 2 cups skim milk
- 1 banana
- 6 ounces low-fat Greek yogurt, fruit-flavored
- 1 cup frozen strawberries

Blend and enjoy

- 465 calories
- 32 grams protein
- 85 grams carbohydrate
- 1 gram fat

Snack boxes can be prepped for the week providing for quick, grab-n-go fuel. Below are six ideas of how to pair items together to make a delicious and nutritious snack:

- **Box #1:** Peanut butter, pretzels, apple, raisins, cheese stick
- **Box #2:** Mini bagel with cream cheese, grape tomatoes, hard-boiled eggs
- **Box #3:** Pita bread, hummus, bell peppers, cucumbers and cheese
- **Box #4:** Tuna or chicken salad, crackers, carrots, celery and ranch dressing
- **Box #5:** Cottage cheese, grape tomatoes, cucumbers, whole-wheat crackers, pear
- **Box #6:** Rice cake, nut butter, blueberries, yogurt, granola

Dining out

There may be days when time is extremely limited and gas stations or fast food restaurants are the only options for fueling. Online nutrition calculators are available for most fast food restaurants. Explore options prior to ordering to have a better idea of the most nutritious choices. Below are suggested items to choose, and selections to avoid, at common establishments.

Gas stations

Many food and beverage selections at gas stations are not healthy options. However, a few nutritious choices are typically available. The following suggestions are items which can be found at most local Speedway stations.

Options to choose:

- Water
- Unsweetened tea or coffee
- Meat jerky (look for brands with the fewest ingredients)
- Cheese sticks
- Cold meat/cheese sandwiches
- Sargento Balanced Breaks (cheese, dried fruit, meat, crackers, nuts)
- Campbell's Chunky Bowls (with the dry goods, can be warmed-up in the gas station microwave)
- Cans of tuna (will need your own can opener)
- Roasted almonds, pistachios, cashews, peanuts, sunflower and pumpkin seeds
- Nature Valley granola bars (the original, hard, 2-in-a pack)
- Protein bars (Met-Rx, Clif Builder, Barebells, Quest)
- Milk, Fairlife milk
- CorePower, Muscle Milk
- Coconut water
- Perrier water

Items to avoid:

- Energy drinks
- Sports drinks, electrolyte drinks (unless very active in hot/humid conditions)
- Soda, sweet tea
- Sweetened coffee drinks
- Packaged pastries, croissants, donuts
- Chips
- Candy, candy bars
- Cookies, ice cream

Fast food restaurants

While it can be challenging to find nutritious options at fast food restaurants, it is possible to select healthier choices. In general, look for grilled items, non-caloric drinks, and meals which include a serving of fruits or vegetables.

When ordering at fast food restaurants, aim to include the following options:

- Grilled sandwiches or nugget options
- Wraps with a grilled protein
- Bowls with whole grains, vegetables and grilled proteins
- Choose whole-grain bread or rice
- Salads with a variety of vegetables
- Add additional vegetables to bowls, wraps, and sandwiches — when available
- Broth-based soups
- Baked potatoes
- Fruit cups
- Yogurt parfaits
- Oatmeal
- Water or unsweetened teas
- Minimize condiments and dipping sauces

For each of the following restaurants, common high-calorie, high-fat, and/or high-sugar options are listed, followed by healthier selections at the same establishment (only total calories listed). In general, avoid fried foods, sugary drinks, and menu items with added sauces.

Starbucks

Common, less healthy items

- Chocolate Croissant, 300 calories
- Mocha (2% milk), 370 calories
- Peppermint hot chocolate (2% milk), 370 calories
- Chocolate chip cookie, 370 calories
- Blueberry Scone, 410 calories
- Iced Lemon Loaf, 410 calories
- Frappuccinos, ~430-480 calories

Healthier selections

- Hot/iced unsweetened tea, 0 calories
- Cold brew coffee (black), 5 calories
- Brewed coffee/Americano (black), 5-15 calories
- Grande Latte with skim milk, 125 calories
- Egg White and Roasted Red Pepper Egg Bites, 170 calories
- Spinach, Feta and Egg White Wrap, 290 calories
- Eggs & Cheddar Protein Box, 460 calories
- Ham and Swiss on a baguette, 500 calories

McDonalds

Common, less healthy items

- 10 Piece Nuggets: 410 calories
- Large Coca-Cola: 380 calories
- Large Iced Mocha, 440 calories
- Large fry: 480 calories
- Deluxe McCrispy, 530 calories
- Big Mac: 590 calories
- Large Chocolate Shake, 800 calories

Healthier selections

- McCafe Premier Roast Coffee, 5 calories
- McCafe Latte (small): 140 calories
- Hamburger: 250 calories
- Cheeseburger: 300 calories
- Egg McMuffin: 310 calories

Chick-Fil-A

Common, less healthy items

- Chick-fil-a Sauce and Garden Herb Ranch Sauce, 140 calories
- Chicken Biscuit, 460 calories
- Side Salad, 470 calories
- Sausage, Egg, Cheese Biscuit, 620 calories
- Cookies & Cream Milkshake, 630 calories
- Cool Wrap, 660 calories
- Spicy Southwest Salad, 680 calories
- Hash Brown Scramble Burrito, 700 calories
- Cobb Salad, 830 calories

Healthier selections

- Barbecue Sauce, Honey Mustard Sauce, Sriracha Sauce, Zesty Buffalo Sauce, 25-50 calories
- Fruit cup, 70 calories
- 1% milk, 90 calories
- Grilled Nuggets, 8 count, 130 calories
- Kale Crunch Salad, 170 calories
- Chicken Noodle Soup, 170 calories
- Berry Parfait with Granola, 260 calories
- Egg White Grill, 300 calories
- Grilled Chicken Sandwich, 390 calories

Chipotle

Common, less healthy items — for burritos, bowls, quesadillas

- Queso Blanco, 240 calories
- Cheese, 330 calories (when automatically added as a quesadilla)
- Smoked Brisket, 360 calories
- Chips, 540 calories
- Large chips, 1270 calories

Healthier selections — for burritos or bowls

- Romaine lettuce, 5 calories
- Fajita veggies, 20 calories
- Any salsa variation, 25-80 calories
- Cheese, 110 calories (as an add-on)
- Black or Pinto Beans, 130 calories
- Steak, 150 calories
- Chicken, 180 calories
- Sofritas, 150 calories
- Beef Barbacoa, 170 calories
- Carnitas, 210 calories
- Brown rice, 210 calories
- Guacamole, 230 calories
- Tortilla, 320 calories (helpful if you need more calories and carbohydrates in your meal)

Monitor your health and blood work

Ascension Public Safety Medical provides specialized annual evaluations for IMPD. Each officer is encouraged to take advantage of this service every year, after being sworn in and receiving their first permanent assignment. Please do not wait until late in your career to schedule the first physical. By scheduling early and annually, health risks and trends can be identified and modifications made to prevent long-term disease. The evaluation is a two-step process:

Step 1: Labs and vaccines

The first appointment is focused on drawing blood and providing vaccines. The following blood parameters are included in the annual evaluation:

- Comprehensive metabolic panel
- Complete blood count
- Lipid panel
- Thyroid stimulating hormone
- Hemoglobin A1C
- PSA (men 40+)
- Lead (firing range officers)

Individuals must be fasted for their blood draw. The vaccines offered with the first appointment include:

- Flu shot
- Hepatitis B shot (recruits/medically indicated)

Step 2: Evaluation and discussion

The second step is to schedule time to discuss blood results and conduct other health assessments, including:

- Audiometry
- Vision
- Resting EKG
- Pulmonary function test
- Chest X-ray (if medically indicated)
- Bladder cancer screen (if medically indicated)
- Stress test
- Body fat testing (BIA)
- Waist/hip ratio
- Coronary calcium screen (40+)
- Stress echo (if medically indicated)
- Comprehensive evaluation
- Behavioral health screen

Both steps in this annual assessment are a *free* benefit to all sworn members.

Scan the following QR code to schedule your blood draw at Public Safety Medical. The comprehensive evaluation will be scheduled after completing your blood draw.

Appendix

Appendix A – calculations for energy needs without basal metabolic rate

If officers do not have their BMR from a body composition assessment, the following equations can be used to estimate daily calorie needs.

The first step is to convert body weight in pounds to kilograms:

Weight in pounds ÷ 2.2 = Weight in kilograms

Insert body weight in kilograms (BW) into the appropriate following formulas based on age and gender:

- Females, 18 to 30 years — Calorie Goal = {(14.7 x BW) + 496} x 1.6-2.4 activity factor
- Females, 30 to 60 years — Calorie Goal = {(8.7 x BW) + 829} x 1.6-2.4 activity factor
- Females, 60+ years — Calorie Goal = {(10.5 x BW) + 596} x 1.6-2.4 activity factor
- Males, 18 to 30 years — Calorie Goal = {(15.3 x BW) + 679} x 1.6-2.4 activity factor
- Males, 30 to 60 years — Calorie Goal = {(11.6 x BW) + 879} x 1.6-2.4 activity factor
- Males, 60+ years — Calorie Goal = {(13.5 x BW) + 487} x 1.6-2.4 activity factor

Based on the previously defined categories, use the following activity factors:

- Low-intensity calculation – Activity factor for all age groups, 1.6-1.8
- Moderate-intensity calculation – Activity factor for all age groups, 1.9-2.1
- High-intensity calculation – Activity factor for all age groups, 2.2-2.4

Data from World Health Organization. Energy and Protein Requirements, Report of a Joint FAO/WHO/UNU Expert Consultation. Technical Report Series 724. Geneva, Switzerland: World Health Organization; 1985:206.

Appendix B: Example meal plans

This is an example meal plan for a recruit during the Academy.

Meal or snack	Option 1	Option 2	Option 3
Breakfast (5-5:30 a.m.)	Scrambled eggs/egg muffins Fresh fruit English muffin, peanut butter	Greek yogurt, with fresh fruit and granola (add hard-boiled eggs, toast, milk)	Smoothie: milk, yogurt, berries, banana, almonds
Mid-morning snack and fluids (8 a.m.)	*Keep it light if doing morning training* Fresh fruit or granola bar, Water	Cottage cheese, tomatoes, Water	½ meat sandwich,water
Lunch (11 a.m.-noon)	Dinner leftovers: meat, starch, vegetables	Milk, yogurt, fruit smoothie Turkey sandwich	Chicken salad, crackers Fresh fruit, raw veggies
Afternoon snack and fluids (2-4 p.m.)	*If doing afternoon training, will likely eat after training to recover* Chocolate milk, protein shake	Trail mix, water	Raw veggies, hummus Fresh fruit, string cheese
Dinner (6-7 p.m.)	Pasta with meat sauce Salad, vegetables	Steak, baked potatoes Salad, vegetables	Fish, rice, salad, vegetables
Evening snack (8-9 p.m.) *If hungry*	Cottage cheese, pineapple	Banana bread, peanut butter	Cereal, milk

Below is an example of a meal plan for an officer weighing 180 pounds and requiring 2,800 calories (BMR of 1,750 x 1.6 for a moderately active individual):

Breakfast
- 2 hard-boiled eggs
- 5.3 ounces Greek yogurt with 1/3 cup granola
- 1 orange

Morning snack
- Apple with string cheese

Lunch
- 4 ounces chicken breast
- 1.5 cups cooked brown rice
- 1.5 cups broccoli

Chicken and broccoli cooked with a total of 1.5 tablespoons olive oil. This is a meal that is prepped ahead of time for five days' worth of lunches. Stored in glass containers. Frozen after prepared and taken out the night before.

Afternoon snack
- Homemade protein shake with 12 ounces 1% milk, 2 tablespoons peanut butter, banana, and 1 tablespoon cocoa powder

Dinner
- 1.5 cups cooked spaghetti, topped with 5 ounces lean ground beef and marinara sauce. Served with 2 cups fresh spinach salad, cucumbers and tomatoes with 2 tablespoons balsamic vinaigrette dressing.

Evening snack
- 5.3 oz non-fat Greek yogurt with 1 cup blueberries

Meal plan totals: 2,802 calories, 164 grams protein (0.9 grams protein/lb.), 316 grams carbohydrate (45% of total calories), 98 grams fat (31% of total calories).

Appendix C: Recipes for meal preparation and crock-pot ideas

Ground beef, roasted broccoli and brown rice (6 servings, 60 minutes)

Ingredients:

- 1.5 pounds brown rice (or several bags of microwave rice)
- 2 yellow onions
- 3 heads broccoli
- 1.5 pounds 90% lean ground beef
- Seasoning of your choice (salt, pepper, paprika, hamburger seasoning)
- Diced garlic
- 3 tablespoons olive oil and 1 tablespoon butter

Directions:

1. Slice one onion in strips. Cut broccoli into small florets. Place in a bowl together. Dice the other onion and place in a separate bowl for the ground beef mixture.
2. Drizzle broccoli and onion strips with 2 tablespoons olive oil, salt, and pepper to taste. Spread over a large sheet pan.
3. Heat oven to 425°. Once the temperature reaches 425°, place the sheet pan with broccoli and onions into the oven for around 20-30 minutes, based on desired crispiness.
4. Boil water in a large pot. Once boiling, add rice to water. Boil for about 40 minutes or until rice is soft. Once complete, drain any leftover water, and add 1 tablespoon of butter, and sprinkle with salt and pepper. *Microwave rice or riced cauliflower could be substituted to speed up this step.
5. Heat an iron skillet with 1 tablespoon of olive oil. Once heated, add garlic and diced onions. Cook for 2-3 minutes and add ground beef. Season ground beef. Cook until beef is cooked through.
6. Assemble containers with rice, broccoli, and ground beef. Store in the refrigerator until ready to eat. Microwave and serve.

Nutrition per serving:

- Calories: 800 calories, Carbohydrates: 97 grams, Protein: 44 grams, Fat: 26 grams

Fajita bowls (4 servings, 45-60 minutes)

Ingredients:

- 2 bags microwave rice
- 4 bell peppers
- 1 onion
- 1 pounds chicken breast, cut into cubes or strips
- Seasoning of your choice (salt, pepper, paprika, cumin, chili powder)
- 2 cans black beans
- Diced garlic
- 2 avocados
- 2 tablespoons olive oil

Directions:

1. Slice onion into strips. Slice bell peppers into strips after removing the seeds/inner core.
2. Place onion/pepper strips into a mixing bowl. Drizzle with 1 tablespoon olive oil and season with salt, pepper, and/or other seasonings listed above. Stir until well-coated. Then spread onto a sheet pan.
3. Heat oven to 400°. Once the temperature reaches 400°, place the sheet pan in the oven and roast vegetables for around 20-30 minutes.
4. Slice chicken into strips or cubes and season with cumin, chili powder, paprika, salt, and pepper to your liking. Heat a skillet with 1 tablespoons olive oil. Once heated, add the chicken. Cook until chicken is around 165° internal temperature.
5. With around 10 minutes left of cooking chicken and veggies, put drained and rinsed beans in a pot. Cook until heated through.
6. Microwave rice for 90 seconds.
7. Assemble containers with beans, rice, chicken, and roasted vegetables. Before serving, top each meal with an avocado or sour cream.

Nutrition per serving:

Calories: 797 calories, Carbohydrates: 76 grams, Protein: 44 grams, Fat: 26 grams

Chicken, roasted sweet potatoes and sautéed brussels sprouts (6 servings, 60 minutes)

Ingredients:

- 2 sweet potatoes
- 1 yellow onion
- 1 pound brussels sprouts
- Seasoning of your choice (salt, pepper, paprika, garlic powder)
- Diced garlic
- 1.5 pounds chicken
- 4 tablespoons olive oil
- Fresh lemon juice, optional

Directions:

1. Dice onion. Cut brussels sprouts into halves.
2. Heat a large skillet with 1 tablespoon olive oil and a small spoonful of garlic. Once heated add onions. Cook onions for a couple of minutes. Then add the brussels sprouts to the skillet. Continue to cook until parts of brussels sprouts start to turn brown or caramelized. Sprinkle with salt and pepper to taste. A little lemon juice will increase flavor, as well.
3. Dice sweet potatoes. Toss in a mixing bowl with 2 tablespoons olive oil. Add salt and pepper to taste. Spread potatoes onto a sprayed baking sheet or one lined with parchment paper.
4. Preheat oven to 425°. Place the baking sheet into the oven for around 25-35 minutes based on the desired crispiness of sweet potatoes.
5. Slice chicken breasts in half lengthwise. Brush chicken breasts with 1 tablespoon olive oil. Season with salt, pepper, garlic powder, and paprika. Place on a sheet pan. Cook in a preheated oven at 425° for around 18-25 minutes until chicken is cooked through.
6. Assemble containers with chicken, sweet potatoes and brussels sprouts mix. Store in the refrigerator until ready to eat. Microwave and serve.

Nutrition per serving:

Calories: 369 calories, Carbohydrates: 24 grams, Protein: 39 grams, Fat: 13 grams

Ground turkey stir fry with brown rice (6 servings, 60 minutes)

Ingredients:

- 2 bags microwave rice
- 1 yellow onion
- 2 bags teriyaki veggies and sauce stir fry kit
- 1.5 pounds ground turkey breast
- 2.1 ounces bag of chopped peanuts
- Diced garlic
- 2 tablespoons olive oil

Directions:

1. Dice onion. Heat a large skillet with 1 tablespoon olive oil. Add onions and a small spoonful of garlic.
2. Once onions begin to cook through, add the teriyaki veggies kit. Cook continuously for about 10 minutes (see directions on package) Add sauce as desired. With about 2 minutes left, sprinkle with peanuts, then remove from heat.
3. Heat up another skillet with 1 tablespoon olive oil and add ground turkey. Season with some of the teriyaki sauce from the stir fry kit, or add your own seasonings such as garlic powder, ginger, onion powder, and soy sauce. Cook thoroughly.
4. Microwave each bag of rice for 90 seconds. Once the rice is complete, add to the mixed vegetables.
5. Assemble containers with veggie/rice blend and ground turkey. Store in the refrigerator until ready to eat. Microwave and serve.

Nutrition per serving:

Calories: 412 calories, Carbohydrates: 41 grams, Protein: 35 grams, Fat: 12 grams

Ranch chicken with broccoli and potatoes (4 servings, 60 minutes)

Ingredients:

- 1 pound chicken thighs
- 1 yellow onion
- 2 heads broccoli
- 2 russet potatoes
- Ranch seasoning packet
- Diced garlic, salt pepper
- 4 tablespoons olive oil
- ¼ cup grated Parmesan cheese

Directions:

1. Slice one onion into strips. Cut broccoli into small heads. Place in a bowl together.
2. Drizzle broccoli and onion strips with 1 tablespoon olive oil, salt and pepper to taste.
3. Cut potatoes into 1-inch pieces and season with salt and pepper. Coat with 1 tablespoon olive oil. Spread over a large sheet pan.
4. Heat oven to 400°. Once the temperature reaches 400°, place the sheet pan with diced potatoes into the oven for around 30-40 minutes based on desired crispiness.
5. Heat 1 tablespoon olive oil in a large skillet. Once heated, add broccoli and onion mix. Cook in pan until tender. Season to desired taste. Sprinkle with Parmesan cheese after removing the vegetables from the heat.
6. Heat another skillet with 1 tablespoon olive oil. Season chicken to your liking with a ranch seasoning packet. Place chicken in the skillet until cooked through.
7. Assemble containers with potatoes, broccoli, and chicken. Store in the refrigerator until ready to eat. Microwave and serve.

Nutrition per serving:

Calories: 428 calories, Carbohydrates: 30 grams, Protein: 23 grams, Fat: 24 grams

Ground beef and bean nachos (6 servings, 30-40 minutes)

Ingredients:

- 2 pounds lean ground beef
- 1 can kidney or black beans
- 1 can diced tomatoes
- ½ large onion
- 2 small cans of fiesta corn
- 8 ounces bag shredded cheese
- 10 ounces bag tortilla chips
- Diced garlic and other seasonings of your choice
- ½ tablespoon olive oil
- Additional toppings: black olives, sour cream, avocado, lime, salsa

Directions:

1. Slice onion in strips or dice if you prefer.
2. Heat a skillet with a small amount of olive oil. Once heated, add diced onions. Cook for 2-3 minutes and add ground beef. Season ground beef (options such as chili lime seasoning, garlic or onion powder, paprika). Cook until beef is cooked through.
3. Heat oven to 400°. Once the temperature reaches 400°, take a sheet pan and spread drained corn onto pan. Pat dry. Season with salt and pepper. Place in oven. Cook until the corn starts to brown, around 20 minutes.
4. Add drained and rinsed beans to beef. Add drained tomatoes to beef mixture. Stir and heat through.
5. Assemble containers with beef mixture. Top with corn. Store in refrigerator until ready to eat. Top with a sprinkle of cheese. Microwave to reheat. Add additional toppings. Package tortilla chips separately.

Nutrition per serving:

Calories: 889 calories, Carbohydrates: 61 grams, Protein: 60 grams, Fat: 45 grams

Crock-pot southwest chicken (6 servings)

Ingredients:

- 1 pound chicken breasts
- 2-15 ounces cans black beans, drained
- 1-15 ounces can corn, drained
- 1-16 ounces jar salsa
- 1 cup shredded cheddar cheese
- 6 whole-wheat tortillas

Directions:

Place chicken, beans, corn, and salsa in crock-pot. Cook on high for 5 hours or on low for 8 hours. Shred the chicken with two forks. Mix in the cheese. Serve in tortillas (or over rice).

Nutrition per serving:

Calories: 496, Protein: 41 grams, Carbohydrate: 56 grams, Fat: 12 grams

Sausage vegetable stew (6 servings)

Ingredients:

- 1 quart chicken broth
- 2 links chicken sausage, sliced
- 1/2 cup canned black beans
- 1/2 cup canned corn
- 1 tablespoon fresh ginger root, peeled and diced
- 1/2 cup carrots, chopped
- 15 ounce can diced tomatoes
- 3/4 cup uncooked quinoa
- 1 large jalapeno, diced
- 2 tablespoons fresh lime juice

Directions:

Place all ingredients, except lime juice, into a crock-pot and cook on high for 2-3 hours or on low for 4-6 hours. Mix in fresh lime juice and enjoy!

Nutrition per serving:

Calories: 197, Protein: 12 grams, Carbohydrate: 26 grams, Fat: 5 grams

Appendix D: Cookbook and food blog suggestions

Power Hungry: The Ultimate Energy Bar Cookbook, by Camilla Saulsbury.
- This cookbook provides recipes for a variety of homemade energy bars and energy balls.

Good and Cheap, by Leanne Brown. Recipes to help individuals eat in a healthy way while keeping food costs low. First edition cookbook is free, if you sign up for her newsletter:
- leannebrown.com/good-and-cheap-2

Body Builder's Meal Prep Cookbook, by Erin Stern. Not just for individuals training for body building. The meal suggestions are appropriate for those aiming for lower calorie and low carbohydrate diets. The cookbook provides not only recipes and meal plans, but also grocery lists.
- penguinrandomhouse.com/books/727404/the-bodybuilders-meal-prep-cookbook-by-erin-stern/

Food blog with hundreds of healthy recipes. Blog theme: Simple recipes made for real, actual, everyday life.
- pinchofyum.com

Appendix E: Officer testimonial — Sergeant Laura Spicer

I want to share my weight loss story in hopes of helping someone. Briefly, I started and ended the Academy in good shape in 2004. (I was also 21). In 2012, I went through fertility treatments resulting in a twin pregnancy. I gained at least 50 pounds. After the babies were born, I continued to gain weight. The added stress, messed up hormones, getting older, and having less time was tough. My wife and I yo-yo dieted and exercised some, but I ended up continuing to gain. I was in a plain clothes unit, so weight gain was obvious. I was mortified. The shame from it did not motivate weight loss but made me feel worse and decreased my desire for exercising or eating right. I also didn't realize how little time I had to cope with life. At work, a lot of my job responsibilities required me to sit still at a desk or in a car on surveillance. I also had unpredictable hours. It is hard to plan food for those situations, so I often ate fast food or grabbed something the kids ate. I had little time to process how some of the traumatic aspects of my work affected me.

Life outside of work also affected my motivation. When I got home, I had little energy left to focus on me or my family. It also felt selfish to say I needed a workout instead of spending time with them doing what they wanted to do. I was there for several close family members as they passed away. As life goes by, other ugly things happen too, like they do with everyone. I also know, in my family, hereditary issues play a part with weight gain, hormones, and imbalances. It wasn't until I went to therapy that things changed. I had to deal with emotional and psychological issues before I could deal with physical ones. Getting help and practical suggestions on how to deal with the stuff in my head was life-changing. However, it still felt like I had dug myself into a deep hole and was trying to climb out.

I then went to a doctor who specialized in weight loss. She explained obesity in a way that made a lot more sense to me: a break in one of the body's numerous biological mechanisms that cause people to feel hunger when they shouldn't. It's a disease that should be treated like any other disease. At this point, I had over 100 pounds to lose. I'm embarrassed it got this bad before I did anything. She put me on an anti-depressant (Wellbutrin) with a little appetite suppressant in it (Contrave). For some people, more intense medical interventions with heavier side effects work well, but they weren't the choice for me. I also understand that some people don't want to do any medical interventions at all. I don't think either way is wrong. It's a highly personal choice.

With these psychological and medical solutions, I finally was able to shift my focus and get my stuff together. I set running the Mini-Marathon as my goal. I got up and started walking, then slowly moved into jogging. It hurt. I was so disappointed in my speed. I had to ignore the little voice in my head telling me to give up. I felt weak, disgusting, and inferior to everyone. I hated it. I suffered injuries, but instead of giving up this time, I went to ProTeam and paid for physical therapy to help with knee and back pain, and I kept moving. I gradually lost 50 pounds this way and ran my 9th Mini in 2024.

My wife saw the changes and decided to join me. That made a world of difference. She went to a dietitian and got food recommendations. We started eating lower and healthier carbs and higher proteins. We had done low-carb diets before, but didn't realize how many new and amazing recipes and websites are out there to support you on a low-carb diet now. Some of the changes we made were these: eliminating sugar; drinking only water and the occasional decaf coffee or tea; protein shakes for breakfast during the week and omelets on the weekend; increasing vegetables through salads and conscientious vegetable additions for dinner; and meal planning, shopping, and prepping. I always make my breakfast, lunch, and snacks the night before work. We've also discovered that there are so many replacements now for carbs, such as noodles made from vegetables. Some are pre-made at Aldi and don't taste like utter crap, aren't expensive, and don't require a lot of ridiculous prep. Therefore, my kids are having spaghetti, I can have the Aldi vegetable noodles. There are a LOT of great plans out there, but we made our own ideas and kept them flexible. It works better for us than being super rigid, because of the unexpected nature of this job. On the weekend, we make sure there are some healthy quick cook options in the freezer for the week in case I am called out or stuck at work until dinner time and my wife is on her own to do all the evening household tasks.

I'm not perfect or completely out of the woods yet. I still struggle with some cravings. Ads are everywhere and social eating at work is hard to resist sometimes. I hit plateaus. However, instead of giving up, I just increase my exercise for a little, and log what I eat, and my weight eventually starts to drop again. Keeping perspective helps me, too. It is a privilege to be able to get up and exercise. It is a privilege to eat well.

It helps to keep up on the PSM wellness checks as they can also do the body composition calculator machine and tell you how much of your total weight is muscle and how much is fat. I also look toward my PSM Wellness checks as a goal. I want to be down so many pounds, up so much muscle, and able to do the treadmill for x number of minutes by the next time I go.

I'm currently down 80 pounds, and I'm still working on it. I'd be thrilled to hit that 100-pound mark by the time I run the Mini this May, but if I don't lose it all, I am happy knowing I'm continuing to work on it, and I feel way better than I did before.

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