

Nutrition for the Warfighter

Performance Readiness Platform
Commanders Toolbox

CR2C Physical Health Working Group



Human Performance Resources by CHAMP HPRC-online.org

Course expectations

- BMR and 24-Hour Recall
- Food Intake Assessment
 - Build a Balanced Plate
- Nutrition Daily Habit Tracker

Email each PDF to your Unit Commander



Total Force Fitness Inventory





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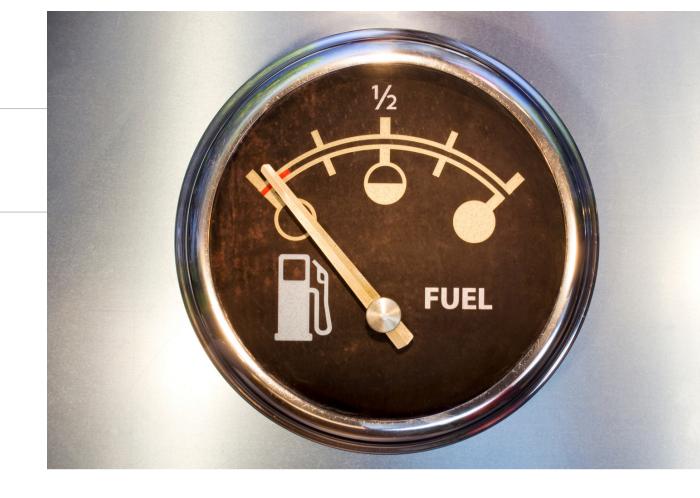
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Fuel from your Kitchen

Fueling your Energy Tank

Energy intake refers to the calories you eat and drink from foods and beverages. Energy use, or "expenditure," refers to the number of calories you use or "burn" in a single day. The 3 major contributors to your EER are:

- --Basal metabolic rate
- --Physical activity
- --Energy used in digesting foods ("thermic effect of food" or TEF)



Energy intake and energy expenditure together make up energy balance. When energy intake is greater than expenditure, there is a positive energy balance, which leads to weight gain. However, when energy intake is less than expenditure, there is a negative energy balance, or "energy deficit," which leads to weight loss. When energy intake equals energy expenditure, body weight doesn't change. Each body's energy needs are unique, and the amount of energy needed to lose or gain weight varies among individuals and can be complicated. Overall, you can intentionally create an energy deficit by "under-fueling"—that is, by not eating enough to balance the energy you expend through activity and exercise.

Fueling your Energy Tank

Basal metabolic rate (BMR) is the amount of energy—used for body functions such as breathing, heartbeat, maintaining body temperature, and other life processes—you need every day just to maintain life. You can use the appropriate equation below to estimate your BMR. While it isn't 100% accurate, it can give you an idea of your energy (calorie) needs.



Basal Metabolic
Calculator

Hold on don't stop eating below your BMR to lose weight, that may work at first but not for long.

Lessis not More.

Consistency & Metabolism

A lot of times skipping meals is the reason people gain weight or are unable to lose weight. It triggers your survival response. If you are skipping breakfast and grab a late lunch, your body hangs on to those calories. It's trying to conserve the calories, not knowing when more food will come! Eating late at night? That can lead to weight gain or inability to lose weight as well. It messes with our sleep cycle - another key component of a healthy metabolism.

Let's work with our body, it's queued by eating consistent meals/snacks which naturally increase your metabolism.

Factors that Influence "Energy In"

Appetite

Influence by hormones that regulate appetite and satiety

Food Consumed

Influenced by energy density, sleep quality

Calories Absorbed

Influenced by macronutrient intake, food prep, age, personal microbiome, health status, energy status

Psychological factors

Influenced by stress levels, mindset, perceived control, self esteem, sleep quality

Factors that Influence "Energy Out"

Energy Burned at Rest

Influence by body size, hormonal status, dieting history, genetic factors, health status, sleep quality, age

Energy Burned through Exercise

Influenced by exercise ability, intensity, duration, frequency, type, environment as well as hormonal status and sleep quality

Energy Burned by Non-Exercise Activity

Influenced by health status, energy status, stress levels, hormonal status, occupation, leisure activities, genetic factors

Energy Burned by Metabolizing Food

Influenced by macronutrient makeup and how processed that food in

CHECK ON LEARNING BMR 24-Hour Recall

A "24-hour food recall" is a snapshot of your diet that involves writing down everything you ate in the last 24 hours—even that piece of candy or handful of pretzels on your way out the door. Many smartphone apps and online programs are available to help you track your intake.

Meal	Hydration	Carb	Fat	Protein	Other
Breakfast					
Snack					
Lunch					
Snack					
Supper					
Snack					



QUESTIONS TO ASK YOURSELF

ARE YOU GETTING ENOUGH TO FUEL YOUR METBOLISM EFFICIENTLY?

ARE YOU GETTING ENOUGH OF THE RIGHT FOOD GROUPS?

DO YOU KNOW WHAT—AND HOW MUCH—YOU ACTUALLY CONSUME EVERY DAY?

INCLUSION INSTEAD OF RESTRICTION

Macronutrients for Everyday Fueling

Macronutrients for Everyday Fueling

Carbohydrates

Carbohydrates are our body's preferred source of energy. Our brain, muscle tissue and cells all utilize carbohydrates in different amounts and ratios.

Cool stuff carbohydrates do in case you ever want to take them out of your diet:

- 1. The preferred energy source for the brain is solely carbohydrates. In fact, the brain utilizes about 60% of carbs at a resting rate.
- 2. Kidneys use carbohydrates to perform many processes that help our bodies get rid of what we don't need and excreting as urine. Kidneys also filter and reabsorb nutrients and minerals we can use again.
- 3. Muscles, including skeletal muscle and muscles like the heart, use carbohydrates as fuel.

Your body can learn to use other macronutrients and it does help some people - but it is not how our bodies were made to function.

Mono-, dia- oligo-, and polysaccharides are the types of words that mean: the basic building blocks of carbohydrates. (Think of what you would see on a nutrition label.) Carbohydrates are also grouped into refined, simple, and complex carbohydrates. Often refined and simple carbohydrates are used synonymously, but they actually have different meanings.

A "refined" carbohydrate, like table sugar or refined grains, has been stripped of its nutrition through processing. It digests quickly in the body which causes blood sugar to rise. However, simple doesn't mean refined. Fruit is an example of a simple carbohydrate due to its sugar content and how quickly the body digests it. It is far from being refined AND comes with so many other health benefits.

Fats

Fat is the most calorically dense out of all macronutrients with nine calories per gram. For reference, both protein and carbohydrates contain 4 calories per gram. Why should you know this? Although they have more calories per gram, they are important for cellular and hormonal health. They are also the only macronutrient that protects our bodies by insulating our organs while regulating our body temperature.

Fats help us digest important fat-soluble vitamins such as vitamins A, D, E, and K. Fat soluble vitamins keep our brains, cells, hormones, tissues, hair, skin, and nails healthy. Fat provides the structural component to many cell membranes which are essential to make new cells and to carry messages. Another vital function of fats?

Hormone health for men and women.

Fats actually hang out in the stomach for quite a bit which is one reason for why fat keeps you feeling fuller longer.

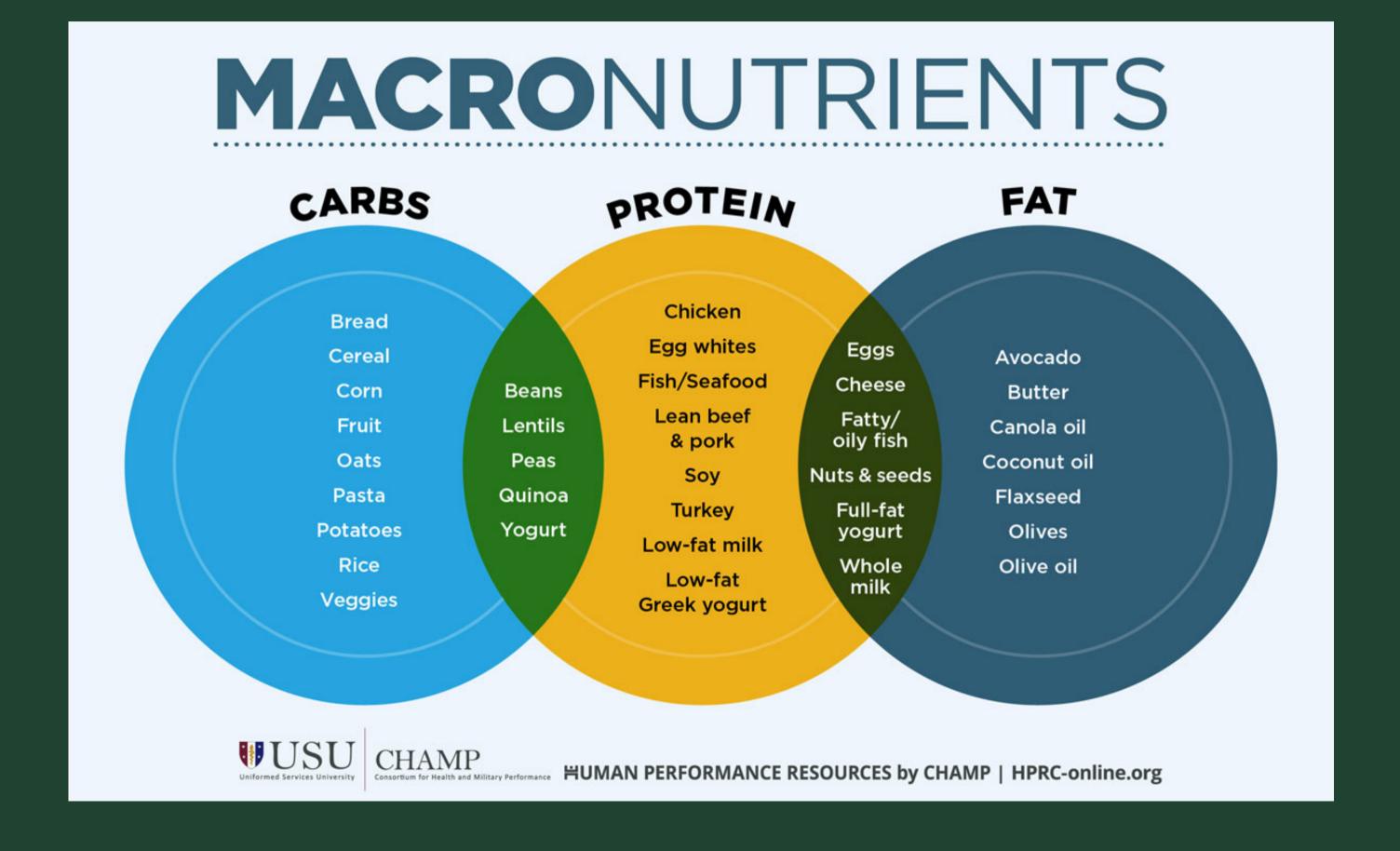
There are two basic kinds of fat, saturated and unsaturated.
Unsaturated fats are considered "healthy fats" including both polyunsaturated and monounsaturated fats.

Proteins

Protein plays a HUGE role in the body. Protein is involved in digestive health, rebuilding tissue and muscle, energy, hormone production, immune health as antibodies, enzymes, structure, and storage/transportation of other molecules. Protein is part of every single cell in our body. Since protein is involved in every cell in our body, it's important to both eat enough but also eat the best quality and most bioavailable when possible.

Quality and bioavailable protein simply means eating protein that your body recognizes, knows how to process, and can do something with. For example, your body will better use protein from wild caught fish than it will from a protein bar. Yes, protein bars & shakes are sometimes necessary to fill nutritional gaps, but it's important to make sure you are also getting protein in a less processed manner too. Oh and variety is good too! Look to get protein from both animal and plant sources!

Some foods and drinks contain one macronutrient while others contain 2 or even all 3 macronutrients. Examples of common foods and the macronutrient(s) they contain are listed below.



Macronutrients for Everyday Fueling

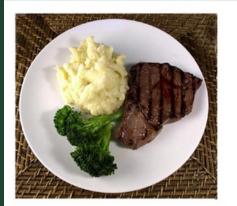


Plate #1 Standard Meal

Plate #2
Volumetric Meal
* half the calories
* more filling!



Inclusion vs. Restriction

We want to get the most out of our dollar, so why not our calories?! Instead of restricting calories, get the most out of them - more fat, fiber and protein in our food from quality ingredients. It will fill us up, help us feel fuller longer and help regulate our blood sugars.

When we eat quality foods it fulfills nutrient deficiencies, and we actually feel full. We don't have to think about restricting, it's all about inclusion: choosing the highest quality version. When we try to use willpower to control what we eat, it backfires and causes us to overeat.

(Ps. it isn't your willpower that's the problem. It's just not how our body is meant to function. Isn't that a relief?!)

Hydration



MyPlate Plan



POWER PLATE

EAT TO FUEL YOUR PERFORMANCE

Focus on whole grains

GRAINS

(such as whole-grain bread and pasta, brown rice, cereal, and quinoa)

STARCHY VEGETABLES

(such as corn, peas, and potatoes)



HEALTHY

Olive oil Avocado

FATS

Nuts/seeds



VEGGIES

Aim for varietythe more color, the better!



WATER OR UNSWEETENED DRINKS

Coffee*, tea*, mllk/nondairy milk, 100% juice (limit 4 oz); sports drinks as needed

> *watch caffeine content

> > **POWER UP**

STAND DOWN

Increase grains & starchy

Decrease grains & starchy

vegetables to 1/2 of your plate

for intense training or operations

vegetables to 1/4 of your plate on

easy/rest days or for weight loss

EAT MINDFULLY

- · Slow down
- Take smaller bites
- · Chew more
- · Focus on flavor

LEAN PROTEIN

(such as fish, poultry, meat, yogurt, cheese, cottage cheese, soy/tofu, beans/lentils, nuts/seeds. nut and seed butters)



Choose high-quality, less-processed options



BE ACTIVE!

For optimal performance, match your portions with your activity level (this can change day to day)

Adapted from: Team USA's Athlete's Plates

For more information, visit HPRC-online.org/nutrition







Review your 24-Hour Recall CHECK ON LEARNING

ASSESS YOUR FOOD INTAKE

Understanding your energy expenditure and intake, as they relate to types and amounts of food, can help you determine your nutritional "fitness."

Compare it to your My Plate Plan. Are you close to you recommended amounts of macronutrients?

Identify where and when you ate—whether it was in your car, at home, at a restaurant, or even at your desk. This will give some insight into your eating habits and patterns.

Ask yourself some questions: Where do you eat most of your meals? What impact might this location have on your nutrition? Are you getting the recommended amounts of fruits, vegetables, and whole grains?

Fueling Strategy

People eat when they're hungry and stop when they're full, right? Not always. It's easy to eat when you're stressed, happy, or sad. Outside influences can affect your eating choices too. Something tastes good or smells good, so you keep eating.

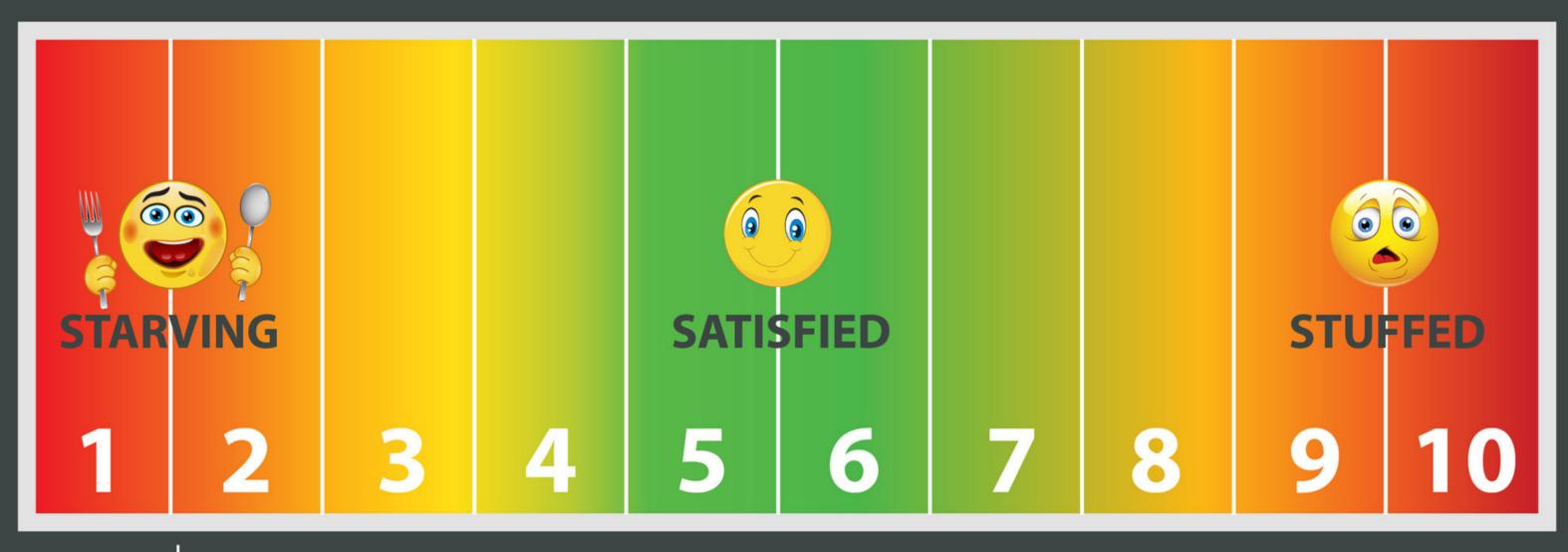
Certain eating behaviors—such as eating too fast or ignoring fullness cues—are linked to failing military body composition standards. Eating while distracted and experiencing extreme hunger prior to meals is linked to failing military physical fitness standards as well. Learn how to recognize your own hunger and fullness cues to help meet your weight, performance, and fitness goals.

It takes practice to recognize your signs of hunger, satisfaction, and fullness. How tuned in to your hunger are you?

Ask yourself the following questions and use the Hunger Scale (next slide) to rate your answers from 1 to 10.

- How do you know when you're hungry (cranky, tummy grumbling, headache, etc.)?
- How can you tell when you're satisfied? Is it an internal feeling or external (empty plate, carton, bag, etc.)?
- What's your hunger at right now?
- Do you ever eat until you're at a 9 or 10? If so, how do you feel?
- What happens when you wait to eat—and you're at a 1, 2, or 3?

Hunger Scale





HUMAN PERFORMANCE RESOURCES by CHAMP | HPRC-online.org

Find what works for you.

Not going for Perfection.

The 80/20Rule



When it comes to achieving a body that will support us physically, mentally, and emotionally, the 80/20 rule is an effective approach. Imagine putting your daily and weekly efforts to achieve a goal into numbers shown by percentages. If it takes 100% of our energy to accomplish something, let's analyze the most effective way to divide our fuel. Whether you're attempting to eat better to lose weight, boost your energy or step up your health, it's hard to make healthy choices every. Single. Time. Nor is it necessary.

That's where the 80/20 plan comes in. It's a flexible plan rooted in the idea of consistency — that what you do most of the time has the greatest impact. So, you choose nourishing foods 80% of the time and can eat foods considered less healthy 20% of the time. If you like the idea of helping yourself to a cookie after lunch or a cocktail at happy hour while maintaining a nutritious diet, the 80/20 philosophy might be a good option.

Start today to implement and analyze your own personal nutritional intake to fit this rule into your own, unique and individual life.

CLICK THE LINK Workout Nutrient Timing



Build a Balanced Plate

Get in the habit of planning your meals out ahead of time.

Get in the habit of eating quality, balanced meals, consistently throughout the day.





Fuel from your Kitchen



Sample Grocery List



7 Day Meal Plan



Quick and Easy Meal Ideas









Create good habits with these 4 strategies



Make it simple.

Set up your environment for success.

Build on routines you already have.

Enjoy the process.

Non-Scale Victories

- You're happier
- You're more optimistic
- You can handle stress better
- Fewer mood swings
- You're less anxious
- You're less stressed
- Improved self-confidence
- Fewer sugar cravings
- Healthier relationship with food
- No more binging
- Eats to satiety
- Listens to your body
- No longer uses food as punishment
- More nutrient dense food choices
- No more food guilt or shame
- Improved "regularity"
- Improved quality of sleep
- More energy
- Less bloating
- New cooking skills
- Enjoying time outdoors (hiking, biking, playing with kids/grandkids)
- Wearing a tank top in public & feeling good about it
- Improved endurance
- Digestion more regular
- Clothes fit better



CHECK ON LERRING

Habit Tracker

Get in the habit of planning your meals out ahead of time.

Get in the habit of eating quality, balanced meals, consistently throughout the day.









PHYSICAL FITNESS

Physical recovery
Muscle memory
Injury prevention
Balance, coordination,
and speed
Muscle gains

MENTAL FITNESS

Mood and emotion regulation

Stress hormone regulation

Alertness and ability to sustain attention

Decision-making and problem-solving

Learning and memory

MEDICAL FITNESS

FINANCIAL

FITNESS

Decision-making

Reduces need for immediate

gratification

Ability to fight infection

Response to immunizations

Chronic disease prevention (heart disease, diabetes, obesity, etc.)

SLEEP & PERFORMANCE

THE BENEFITS OF GETTING 7-9 HOURS OF SLEEP PER NIGHT

SOCIAL FITNESS

Relationships

Empathy Willingness to

Openness to others



SPIRITUAL FITNESS

Mood and emotion regulation Ability to live out your values

NUTRITIONAL FITNESS

Hunger regulation Blood sugar balance Gut health

Healthy body weight



