

City Colleges of Chicago

PFT PROGRAM

Nutrition 101

The Basics



The Big Mystery ?

With all the nutrition information (and misinformation) out there it can be difficult to know what advices we should be following and what's not worth listening to.

What do weight management nutrition, sports nutrition, and generally healthy nutrition have in common?

- **Individualized**
- **Results Driven**
- **Practical**

Look for credible and credentialed sources of nutrition information.

- **Dietitians and Doctors**
- **NOT Social Media**
- **NOT your Sister's Boyfriend or your Personal Trainer**





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The Macronutrients

-
- carbohydrates
 - protein
 - fat

Nutrition Basics

MACRONUTRIENTS

Carbohydrates

An essential source of energy, carbs are easily digested and metabolized to provide fuel for all our bodies' systems.

- Carbs are found in a variety of foods like grains, starchy vegetables, fruits, dairy, and sweets.
- Low carbohydrate diets have become very trendy recently. While low carb diets may result in short term weight loss, research has found that diets with a moderate intake of carbs lead to the best overall health outcomes.
- Carbohydrates provide 4 calories per gram. So a food that has 10 grams of carbs would have 40 calories from carbs.

Nutrition *Basics*

MACRONUTRIENTS

Protein

Important for our muscle recovery and cell repair. Athletes may worry about getting enough protein but most are eating sufficient amounts.

- The best sources of protein are eggs, meat, and dairy. Protein is also found in beans, nuts, and legumes.
- Diets that contain protein from a variety of animal *and* plant sources (not just meat) have been shown to result in improved health outcomes.
- Protein provides 4 calories per gram. So a food that has 10 grams of protein would have 40 calories from protein.

Nutrition Basics

MACRONUTRIENTS

Fat

Critical for protecting vital organs, improving immune function, and storing energy. Fats are slow to digest helping to keep us full and satisfied.

- Good sources of fat include butter and oils, egg yolks, full fat dairy, avocados and nut butter.
- Because fat is more calorically dense than carbs and protein, many believe that “low fat” foods are a healthy choice. However many low fat foods replace naturally occurring fat with starches, gums, and sugars.
- Fat provides 9 calories per gram. So a food that has 10 grams of fat would have 90 calories from fat.

The Macronutrients

USDA Recommendations for Macronutrient Intake:

	% TOTAL ENERGY INTAKE	CALORIES	GRAMS
CARBS	45 – 65	1100	275
PROTEIN	10 – 35	400	100
FAT	20 – 35	500	55

Based on macronutrient breakdown of 55% CHO, 20% PRO, 25% FAT and 2,000 calorie daily intake.

Balance your macronutrients by incorporating carbs, protein, and fat at every meal and snack.



Nutrition Basics

CALORIE INTAKE

HOW MANY CALORIES



» ***Guess what, I have no idea!***

- Tools to estimate calorie needs are wildly inaccurate, even in a clinical setting.
- Your metabolism and calorie needs vary greatly from day to day.
- Counting calories is a cumbersome process, distracts from our relationship with food, and tends to be inaccurate anyway.
- The easiest way to estimate your caloric needs is to simply eat when you're hungry!

Honor Your Hunger

- When we skip meals or ignore our hunger our bodies assume there isn't any food around and our metabolisms slow down.
- If we ignore our hunger our bodies begin to adapt and hunger cues diminish.
- When we tap into our **primal hunger** (fear of starvation) it becomes extremely difficult to regulate intake or make rational food decisions.

Busy schedules, daily anxieties, and food culture often dictate when we eat resulting in meal times that have little to do with actual hunger.

**IF YOU'RE HUNGRY
IT'S TIME TO EAT!**

Honor Your Hunger

If you're hungry, it's time to eat:

Breakfast – Wakes up metabolism and provides essential fuel for the day

→ Choose a breakfast that contains a good mix of protein, carbs, and fat

Snacks – Keep healthy snacks on hand to eat whenever hunger strikes. This is especially important for athletes with higher caloric needs.

→ Like breakfast, snacks should be a mix of macronutrients. However you may choose a higher carb snack before a workout or a higher protein snack after.

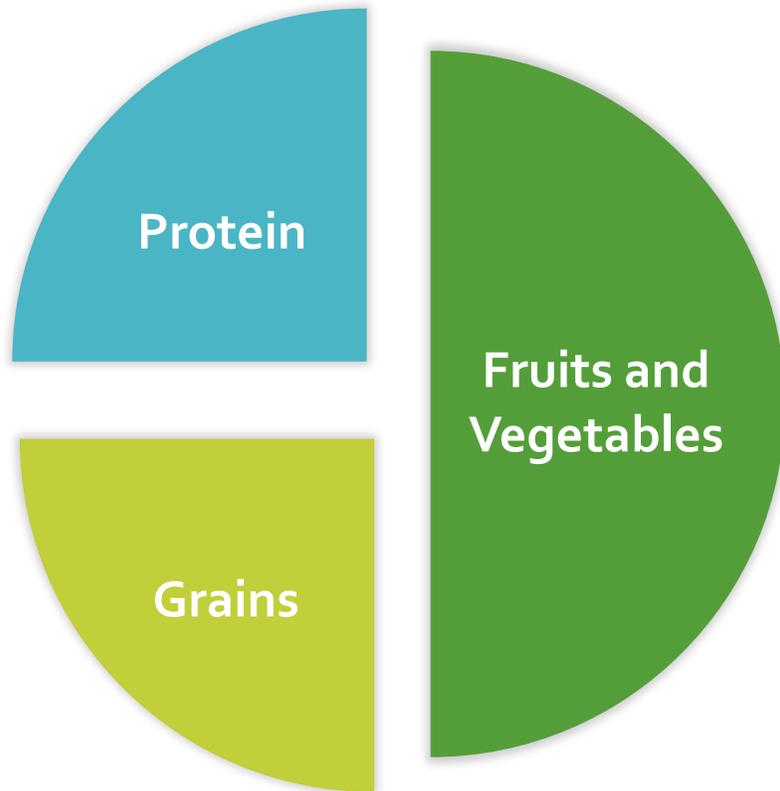
Meals – Lunch and dinner should be larger meals ideally eaten at similar times every day. **DO NOT SKIP MEALS!**

If you find you are extremely hungry at lunch and dinner consider eating more at the previous meal or adding in an extra snack.

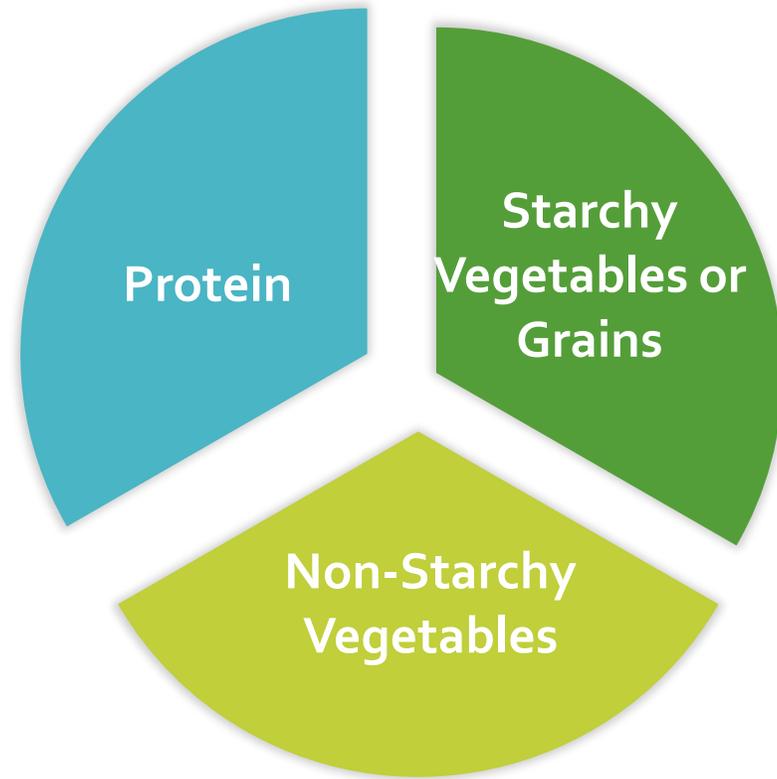


General Healthy Eating

USDA MYPLATE

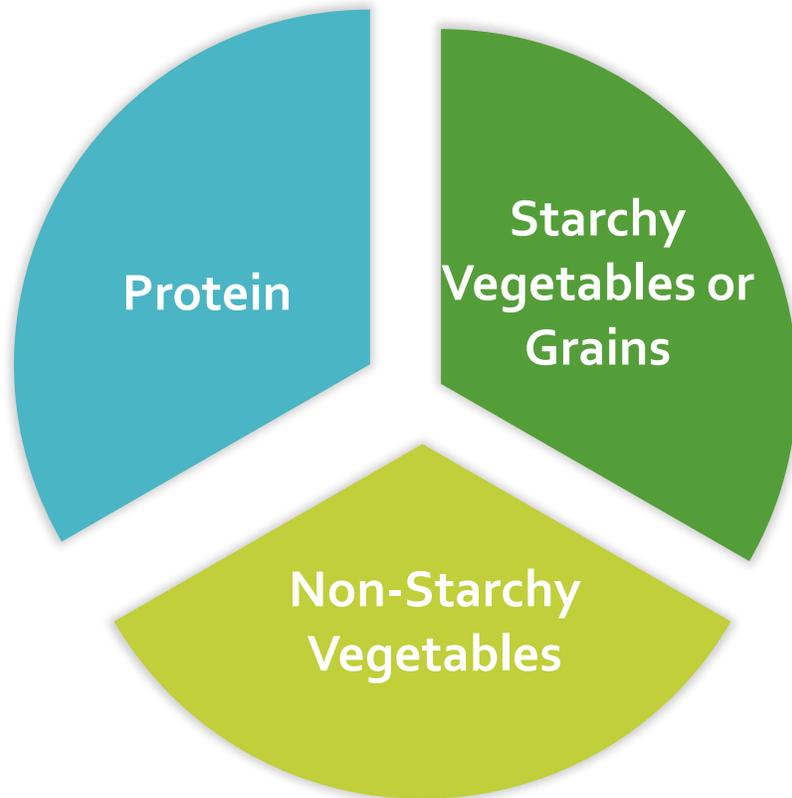


MYPLATE VARIATION



MyPlate Variation

MYPLATE VARIATION



- Added carbs from a wider variety of sources
- A heftier dose of those anti-oxidant rich and nutrient dense veggies
- A larger serving of protein to increase satiety ; also provides added fats

Starchy Vegetables or Grains

Why?

- Starchy vegetables like sweet potatoes and beans are great sources of carbohydrates and tend to be more nutrient dense than grains.
- We need carbs to fuel our daily activity – increasing carbohydrate intake can help you maintain your energy through your workday or your workout!



Starchy Vegetables or Grains

Nutrient Dense Starchy Veggies & Grains:

Whole Grains:

- Whole or sprouted grain bread
- Brown rice or whole grain pasta
- Bran cereal, oatmeal, grits
- Look for labels that say “100% Whole Grain”

Starchy Vegetables:

- Beans – black beans, pinto beans, chick peas (and hummus!)
- Potatoes – the more colorful the better
- Corn – also considered a whole grain

Seeds and Legumes:

- Peas and lentils
- Quinoa, chia, and flax seeds



Non-Starchy Vegetables



Why?

- Vegetables are loaded with nutrients that are essential for optimal cell function, energy production, and recovery:
 - Potassium and Vitamin B for ATP synthesis
 - Magnesium and Vitamin C for recovery
- Vegetables are high in anti-oxidants to combat the oxidative stress resulting from increased cellular metabolism
- Diets high in vegetables have been associated with reduced chronic inflammation
- Aside for athletic performance benefits, veggies are just really good for you – eat more of them!

Protein

Why?

- Protein is the main structural component of our cells and tissue and dietary protein is used to repair muscle damage.
- Adequate protein is essential for athletes however protein needs can be met relatively easily.

For a 130lb women 90 g PRO = 1.5 g/KG

2 eggs	= 12g
5 oz Greek yogurt	= 15g
4 oz chicken breast	= 34g
¼ cup almonds	= 8g
6 oz salmon	= 43g
Total	= 112g



Fat

Why?

- Although fat isn't specifically indicated on MyPlate it is a **critically important** nutrient.
- As athletes increase their carb and protein intake they often decrease their fat intake.
- Fat is crucial for energy production and muscle repair. A diet low in fat can lead to increased feelings of fatigue and soreness.



Types of Fat

Saturated Fat – Often villainized, saturated fats are actually essential for immune function, hormone production, and cellular structure.

- Saturated fats are solid at room temperature
- Typically from animal sources like fatty meats and dairy

Medium Chain Triglycerides – Because of their shortened length, MCT's are quickly and easily converted into energy. Some evidence indicates this may be beneficial for improving athletic performance.

- MCT's are saturated fats found in plants
- Good examples include avocado, nuts, and coconut oil

Omega 3 Fatty Acids – A specific type of unsaturated fat that cannot be produced by our bodies and has anti-inflammatory properties.

- Unsaturated fats are liquid at room temperature
- Good sources of Omega 3 FA's are fatty fish, flax and chia seeds, walnuts, olive, flax, and canola oil



Ethical Messaging

in the health and wellness industry



diets
are
the
worst!



ethical messaging

Reject the
Diet Mentality

Seriously though. Diets don't work.

Physical Consequences:

- ✓ Slowed metabolism
A six-year study following contestants on *The Biggest Loser* found an average metabolic suppression of 500 calories/day from baseline.
- ✓ Decreased lean body mass
The body will catabolize metabolically active muscle tissue over fat as a preservation mechanism during times of perceived starvation.
- ✓ "Fat overshooting"
The loss of fat and muscle triggers the body to gain *more* weight (through various hormonal and metabolic processes) leading to increased weight gain in the form of fat.

Psychological Consequences:

- Disordered eating
So called "will power" can't overcome the body's primal fear of starvation. Many chronic dieters find themselves trapped in a cycle of deprivation followed by overeating.
- Social isolation
Dieters may feel they can't participate in social gatherings where food is served. So . . . that's every social gathering. Or they may feel judged for their food choices when eating in public.
- Feelings of guilt, shame, and anxiety around food
The more we diet, the more uncertain we become about our food choices.

But that first diet totally worked!

Many of us have lost weight on calorie restricted diets in the past. Yup, that very first diet might have worked.

Because cutting calories will result in weight loss. *At least at first*. And this convinces us that diets do work.

But the more we diet, the more difficult it becomes. The body begins adapting to prevent starvation. "Disallowed" foods become more tempting.

We feel we've failed because subsequent diets are never as effective as the first.

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#fitspo
is also
the
worst!



Stephanie Fiorentino
MS, RD, LDN

Body Diversity

What I can make my
body look like



What I actually
look like



- » It's important to recognize that your clients probably won't:
 - Weight 125 lbs
 - Be a size 2
 - Have a six pack
- » Our diet and weight obsessed culture teaches us that "thin" is the only acceptable body type.
- » Clients may come to you wanting to lose dramatic amounts of weight or drastically alter their body shape.
 - Encourage realistic expectations
 - Remind clients to focus on positive changes that aren't related to appearance
- » **Avoid using fear as a motivator for change!**

A top-down view of fresh vegetables including kale, asparagus, cherry tomatoes, basil, and purple cabbage, with a brown paper bag. The vegetables are arranged on a white surface. The text "Questions?" is overlaid on the bottom right of the image.

Questions?