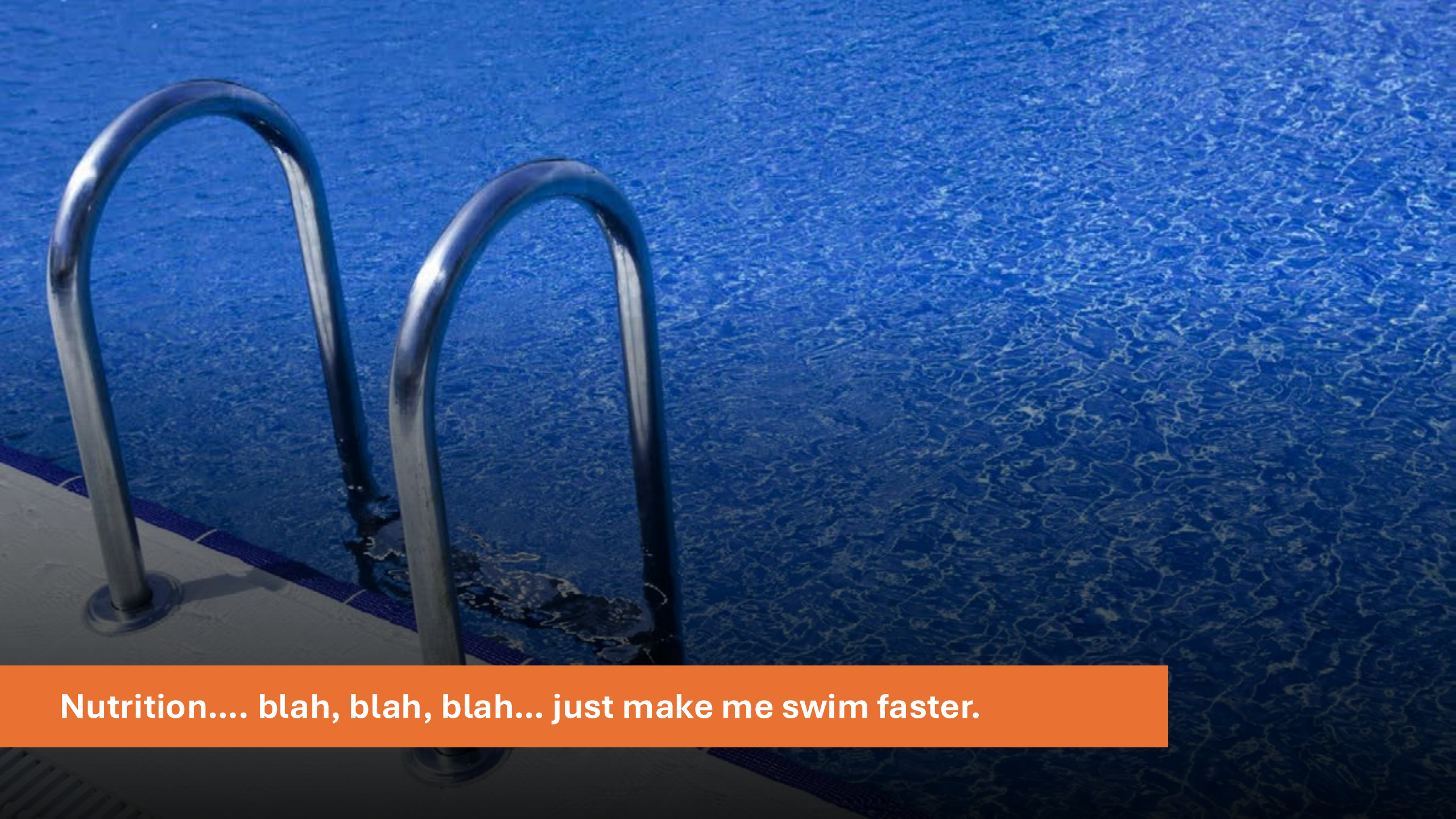




Nutrition.... blah, blah, blah... just make me swim faster.



Scott Murison

swim dad - cycling & triathlon coach - nerd

- **Disclaimer:**

The information shared in this talk is for educational purposes only and is not a substitute for professional medical advice. I am not a licensed doctor, nutritionist, or dietitian. Please consult a qualified healthcare professional before making changes to your diet or lifestyle, especially if you have health conditions or take medications. Everyone's needs are different, and professional guidance ensures safe and effective choices tailored to your circumstances. Always prioritize your health and well-being.

Agenda

- Why we eat
- How much to eat
- Short Recovery and Long Term Improvement
- Macro and Micronutrients
- Protein and Carbs
- Understanding food labels and marketing
- Supplements
- Q&A



Why do
we eat?





1. Eating is an important social time?

2. Eating is
how we fuel
our bodies
and our
brains

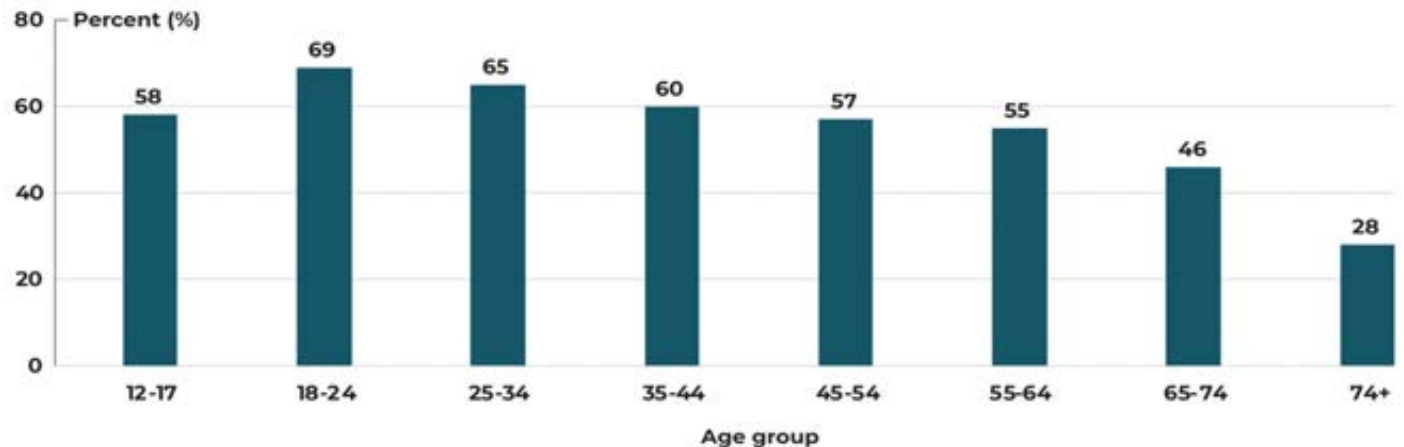


How much food do we need?

- Average people need
- 13+ need an average of 2,000 calories a day.
- 4 - 12 need an average of 1,500 calories a day.
- 10-30% from protein
- From Health Canada RDA

Percentage of people in Canada (aged 12+) reporting meeting the Canadian Physical Activity Guidelines (CPAG) *, by age group – 2017 and 2018 combined

The percentage of adults meeting Canadian Physical Activity Guidelines decreases with age. 69% of adults aged 18-24 meet the guidelines. This decreases to 55% aged 55-64 and only 28% for those over 75.



The Food Guide recommends that about a quarter (25%) of the foods you consume each day come from protein foods. They suggest 60g for 165lb average person.

Canada's food guide

Eat well. Live well.

Eat a variety of healthy foods each day

Have plenty of vegetables and fruits

Eat protein foods

Make water your drink of choice

Choose whole grain foods

Discover your food guide at
Canada.ca/FoodGuide

Swimmers are not average

- 3,000 meter at aerobic capacity pace = 1,100 kcal
- A sub-elite swimmer that races the 400 free in 4:00.00 expends 147 kcal (35g of carbs and 0.32g of fat will be fueled). Jul 13, 2019
- 60 minutes of swimming freestyle = 12,180 steps



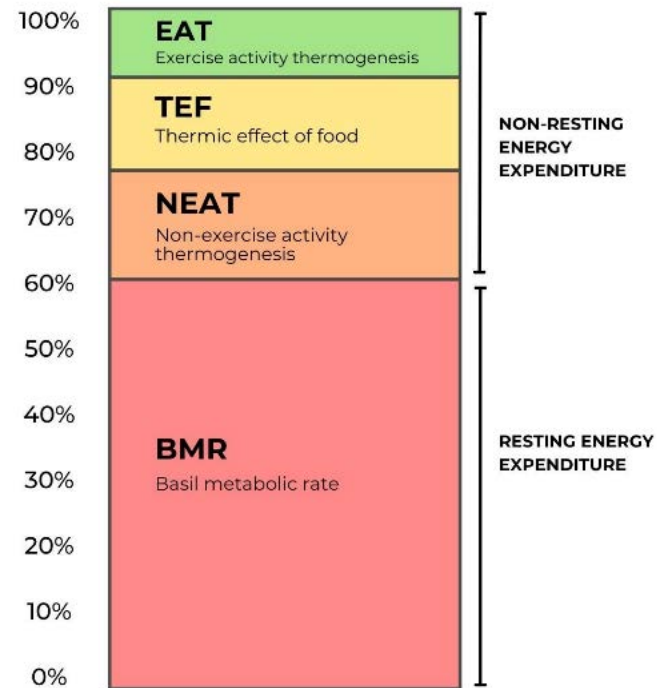
The swimmer's needs

- 5'2", 110lb 12 yr old "very active boy" = 3021cal, 75-223g of protein (ref. Health Canada)
- 5'9", 135lb 16 yr old "very active girl" = 3738cal, 92-277g of protein (ref. Health Canada) (same sedentary girl needs 2312cal)
- Recommended to get 10-30% of calories from protein (protein is 4 cal/g)
- <https://www.canada.ca/en/health-canada/services/food-nutrition/healthy-eating/dietary-reference-intakes/tables/equations-estimate-energy-requirement.html#a3>
- <https://www.canada.ca/en/health-canada/services/food-nutrition/healthy-eating/dietary-reference-intakes/tables/reference-values-macronutrients.html>

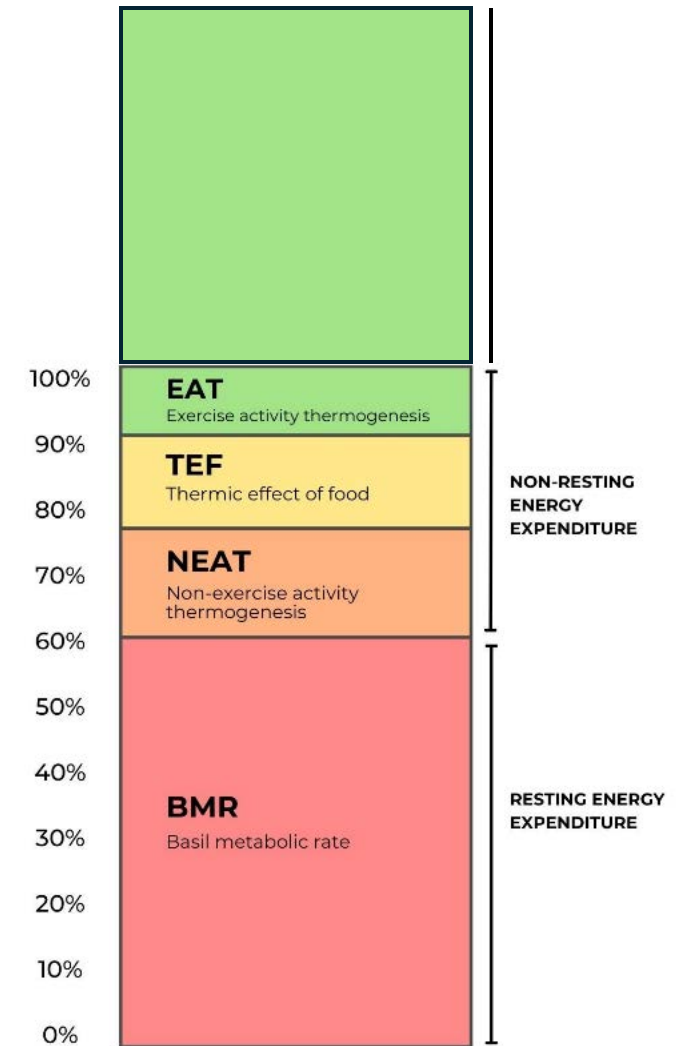


How do we use the energy?

Average 2000 calories



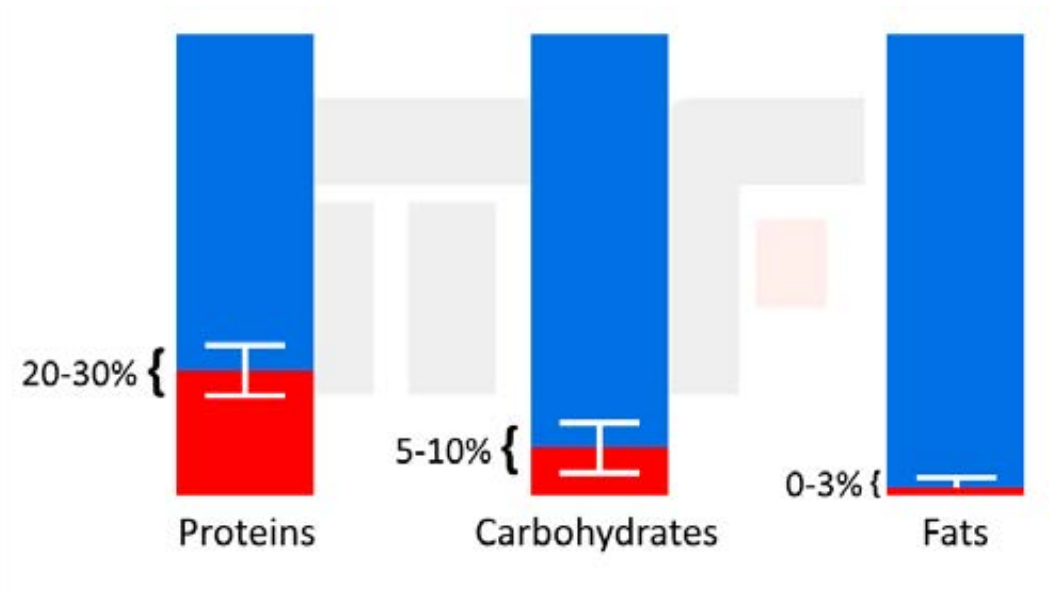
Swimmer 3000 calories



When is a calorie not a calorie?

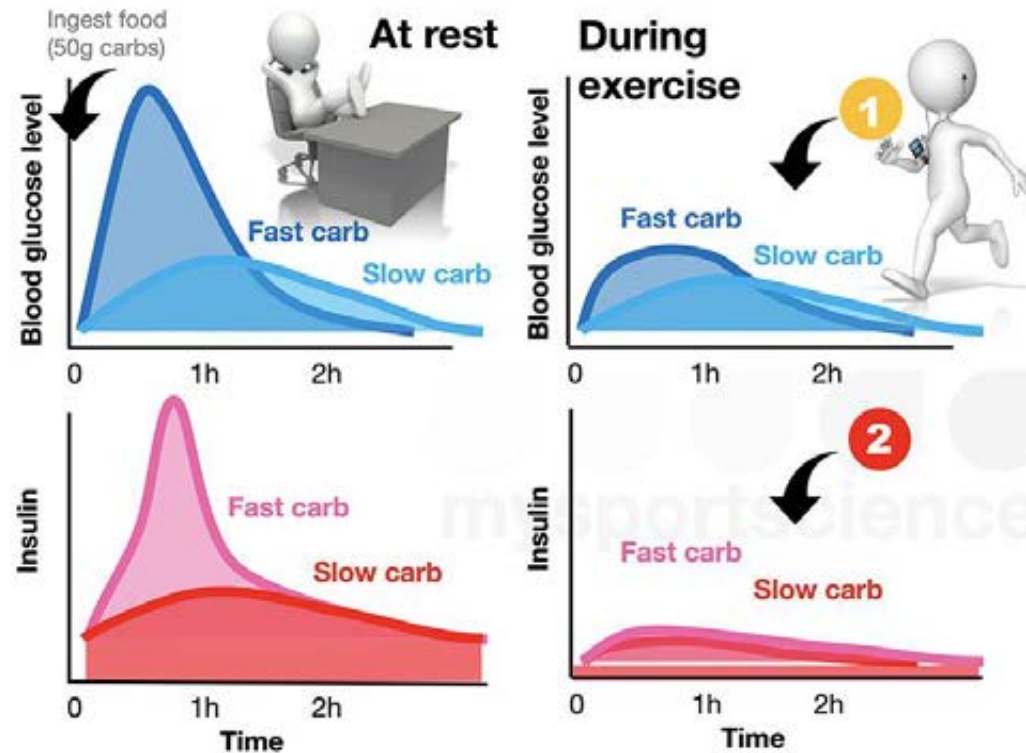
Thermogenic effect of food

- Fat provides 9 calories per gram. Its TEF is 0-3%
- Carbohydrate provides 4 calories per gram. Its TEF is 5-10%
- Protein provides 4 calories per gram. Its TEF is 20-30%

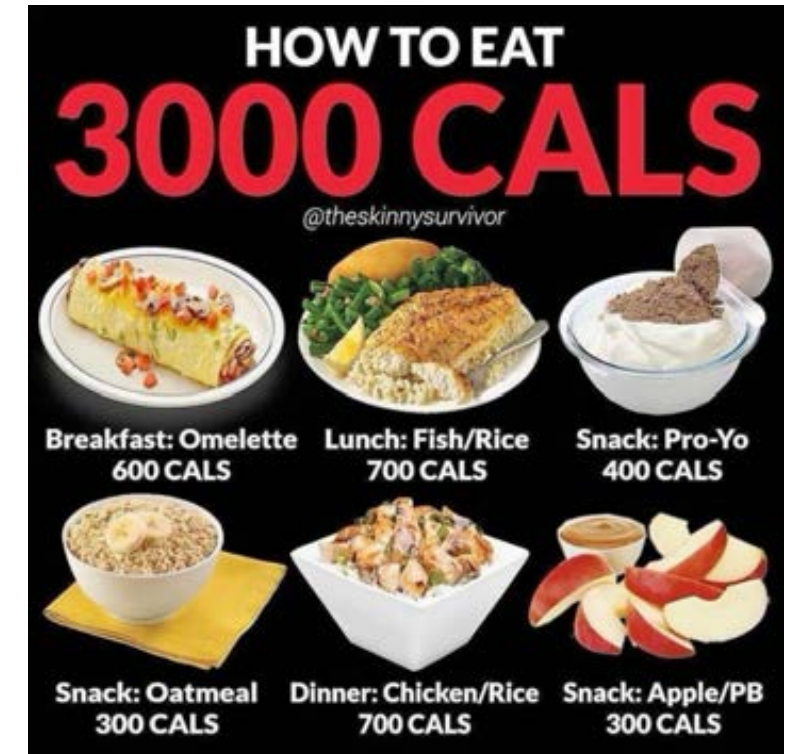


Glycemic load - timing carbs/sugars

Slow versus fast carbs at rest and during exercise



What does 3000 calories look like?



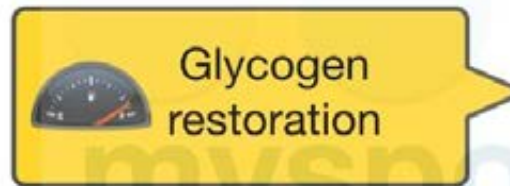
How do I
have energy
for school,
training and
increasing
speed and
strength?



Short Term Recovery

Energy for next workout

Main nutrition concerns for rapid recovery



Carbohydrate



Fluids

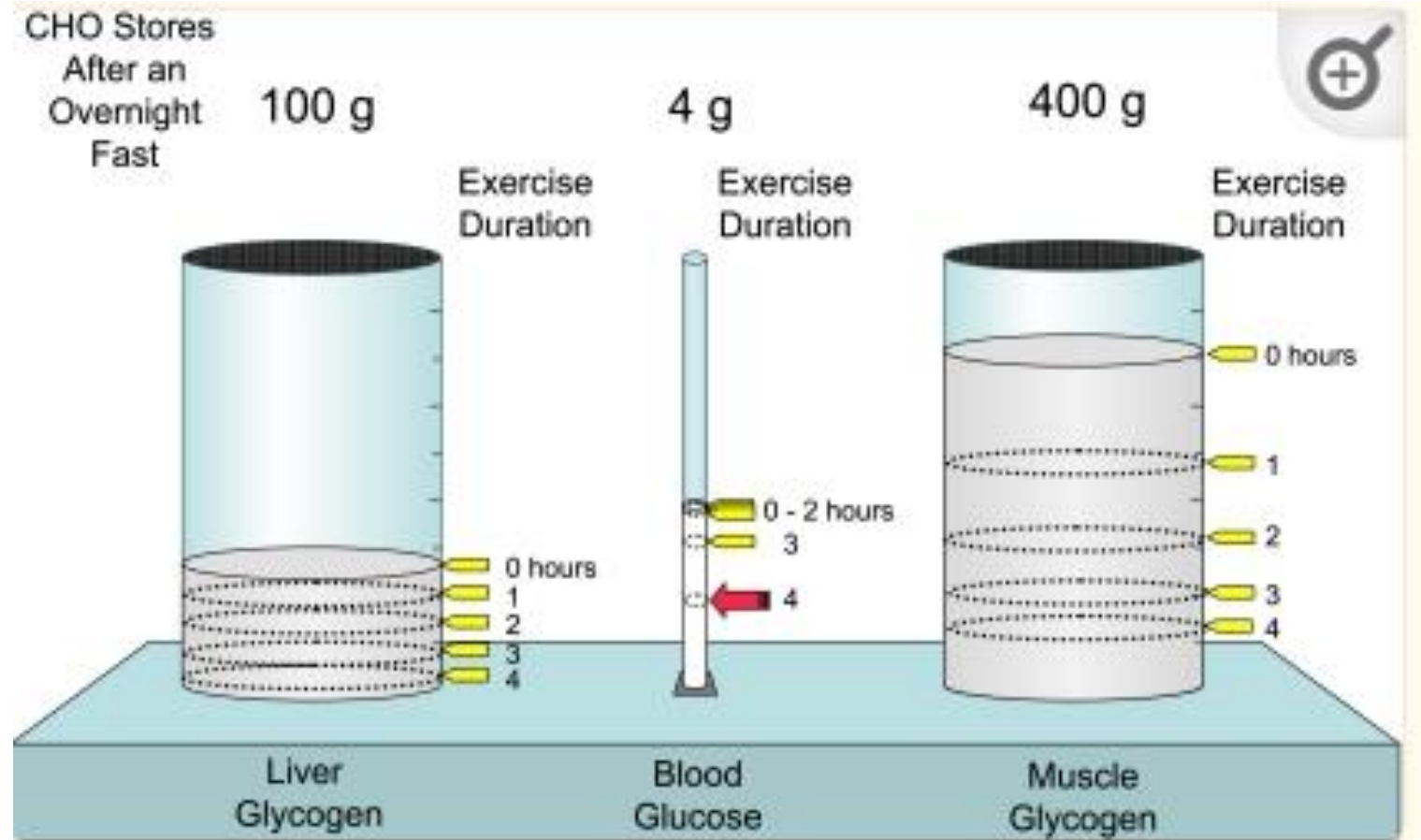


Antioxidants?
Tart cherry juice?
Protein?
Other nutrients?



Our Storage Tanks

We need to fill our tanks before the next workout and so our brains work well at school



Short Term Recovery

- Eating and drinking 0-3 hours after workout

Post-Swim Recovery Snacks From Starbucks



EAT
SWIM
WIN

Post-Swim Recovery Snacks From McDonald's

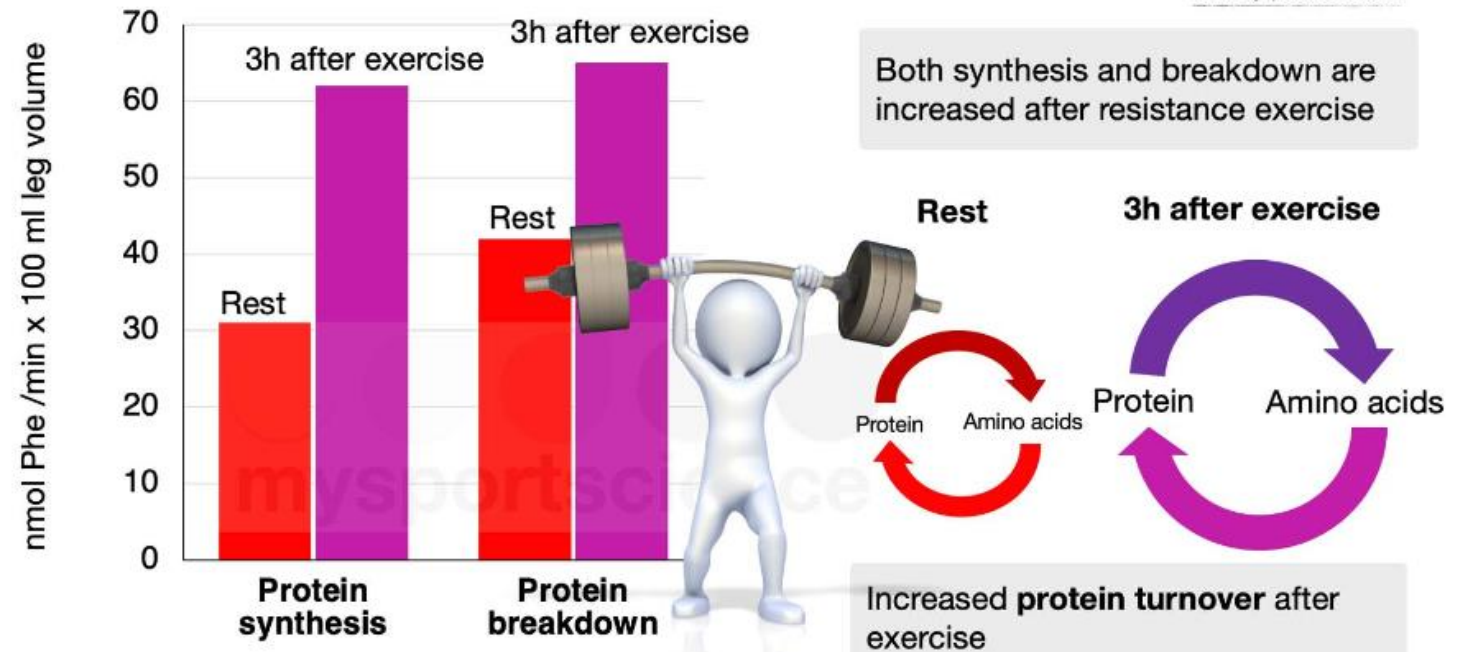


EAT
SWIM
WIN

Long Term Recovery and Improvement

Nutrients for muscles to
grow and recover

Exercise increases protein breakdown AND synthesis



Biolo et al Am J Physiol 268: E514-E520, 1995

Long Term Recovery and Improvement

How much protein for optimal protein synthesis?

Daily intake of
~1.6 g protein/kg/d
appears to be close to
optimal for building muscle

The highest level of protein
ingestion that may yield
muscle building benefit is
~2.2 g protein/kg/d

1.6-2.2
g protein/kg/d

You can ingest
more protein
than 2.2 g/kg/d,
but it will **not**
help build muscle


mysportscience
Unlock the Power of Science to Optimize Performance

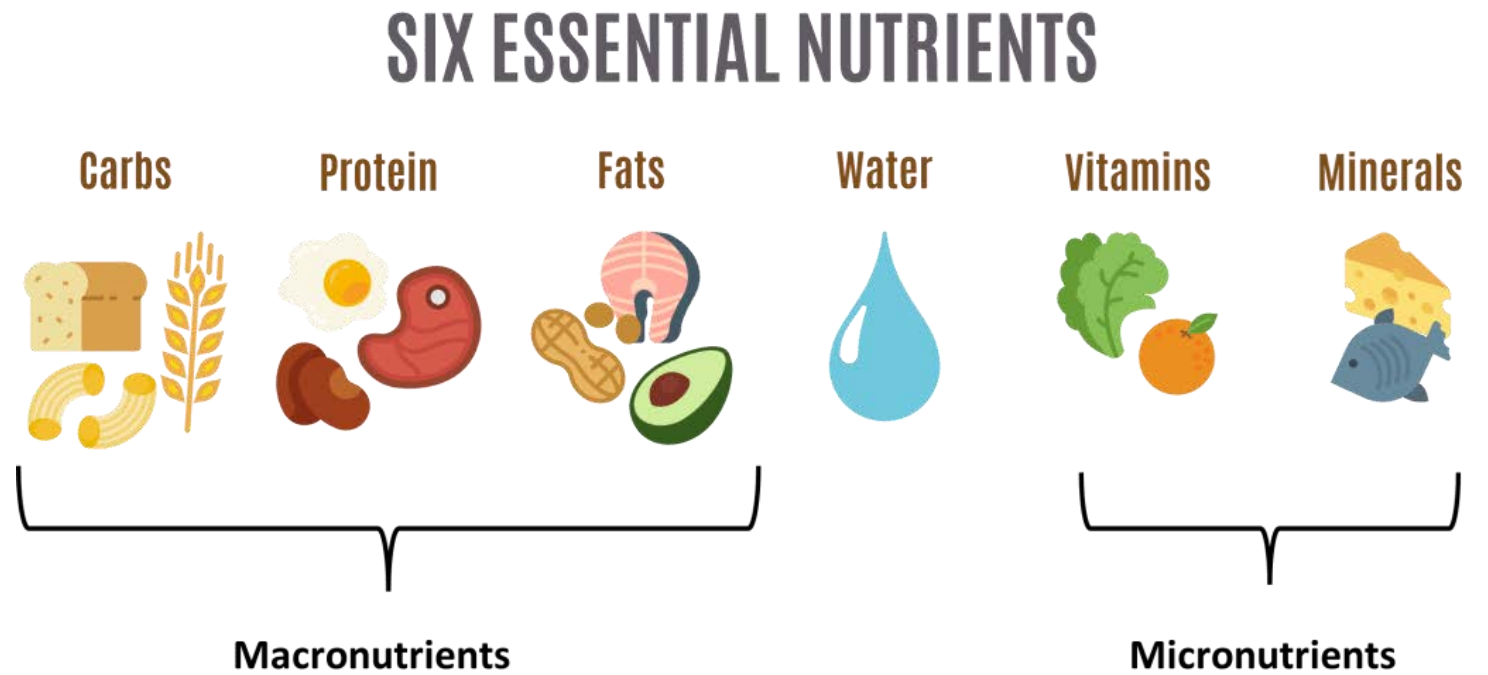


@jeukendrup

www.mysportscience.com



How to look at food



- Carbs + water + minerals - **short term refueling**
- Add protein + minerals + vitamins and fats for **long term improvement**



Rough Guide

- Calories determine your body weight
- Macronutrients dictate how you look at that weight
- Micronutrients dictate how you feel at that weight

What does 150g of protein look like as a ratio to carbs?

1 day's worth for a 150-175lb athlete

150G OF PROTEIN

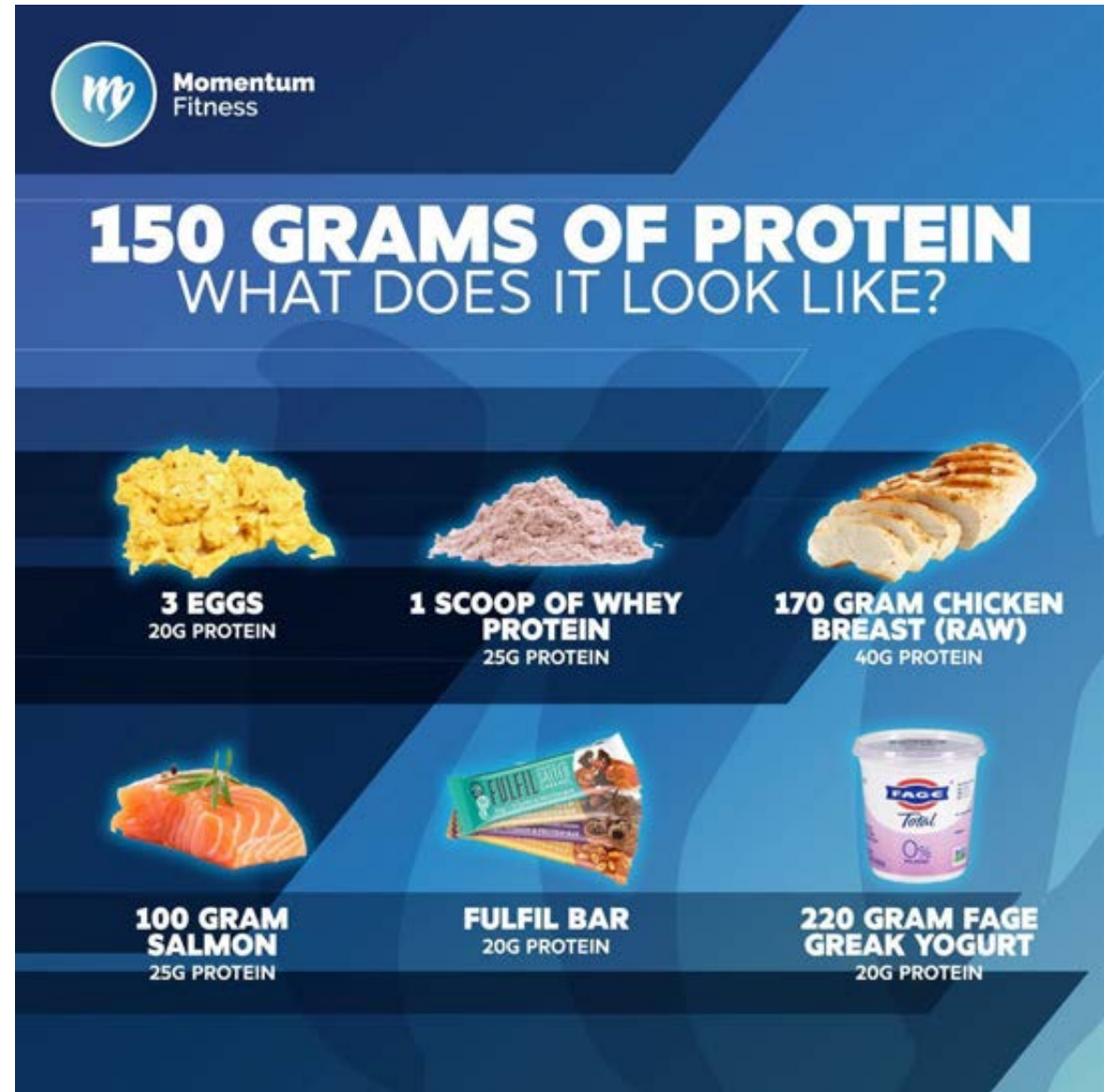
2,000 CALORIE TEMPLATE

@MRSPORTOFFICIAL

	DAY 1	DAY 2	DAY 3 (BUSY)
BREAKFAST 30-40g <500 cals	 2 medium eggs, 1 Heck sausage, 1 slice sourdough, & 20g cheddar. 481 cals 35g	 40g rolled oats, 250ml semi-skim milk, 1/2 scoop protein powder & 1 tbsp. peanut butter. 432 cals 32g	 344 cals 32g
SNACK 10-15g <200 cals	 2 thins w/ 1 tbsp. (15g) PB 174 cals 7g	 32g pack satay chick. & 1 Peperami. 198 cals 13g	 1 KFC mini fillet burger 280 cals 17g protein
LUNCH 30-40g <500 cals	 Tesco chicken, bacon & lettuce sandwich, Muller Light yog & Coke Zero. 499 cals 36g	 100g canned tuna, 120g wholegrain rice, 150g mixed veg & 25g mozzarella. 443 cals 42g	 1 scoop protein powder with 300ml milk & 1 medium banana. 372 cals 35g
SNACK 10-15g <200 cals	 150g Edamame 183 cals 16g	 1 of each 200 cals 17g	 1 pouch & 2 kiwis 242 cals 21g
DINNER 30-40g <500 cals	 100g lean beef steak, 1/2 cup mushrooms, 150g potatoes, greens & 1 tbsp. EV olive oil. 477 cals 39g	 120g chicken breast, 120g egg noodles, & stir-fry veg. 461 cals 40g	 120g salmon fillet, 120g wholegrain rice, 120g mixed veg & 1/2 med. avocado. 498 cals 35g
SNACK 10-15g <200 cals	 28g pack & banana 185 cals 12g	 150g serving 180 cals 11g	 2 packs 188 cals 8-10g

Example of how you might want to split your protein servings.

150g of protein



150g of protein

WHAT CAN 150G OF PROTEIN LOOK LIKE IN YOUR DAY?



0% GREEK YOGURT
1 MEDIUM BANANA
50G BLUEBERRIES
50G RASPBERRIES



1 SCOOP WHEY
25G 70% DARK CHOCOLATE
50G BLUEBERRIES



125G LEAN MINCE
75G FUSILLI PASTA
250G DOLMIO SAUCE



150G CHICKEN BREAST
X2 TORTILLA WRAPS
MIXED SALAD
150G NAKED MCCAIN'S CHIPS



PROTEIN YOGURT POUCH
30G CASHEW NUTS



150g of protein

150g Protein In A Day		
2 Whole Eggs & 4 Whites	200g Chicken Breast	30g Whey
		
27g Protein	46g Protein	24g Protein
100g Paneer	50g Soya Chunks	30g Lentils
		
19g Protein	26g Protein	8g Protein

3+ portions over
the day
30g per meal +
snacks will get
you over 100g/day

How to Eat 30g of Protein



**1 small
steak**



@healthcoachkait

**1 salmon
fillet**



**2 chicken
drumsticks**



**2 tins
fish**



**2 cups
Greek yogurt**



**5 whole
eggs**

Veggie Sources

VEGAN PROTEIN SOURCES

PROTEIN PER SERVING

@cheatdaydesign



SEITAN
(4oz)
28g



PEA PROTEIN
(1/4 CUP)
22g



TEMPEH
(4oz)
21g



SOYBEANS
(1/4 CUP)
15g



LENTILS
(1/4 CUP)
13g



TVP
(1/4 CUP)
12g



TOFU
(4oz)
12g



PUMPKIN SEEDS
(1/4 CUP)
9g



EDAMAME
(1/2 CUP)
9g



NUT BUTTER
(1/4 CUP)
8g



BEANS
(1/2 CUP)
7g



FARRO
(1/4 CUP)
7g



NUTS
(1/4 CUP)
6g



QUINOA
(1/4 CUP)
6g



CHICKPEAS
(1/2 CUP)
6g



CHIA SEEDS
(1/4 CUP)
6g



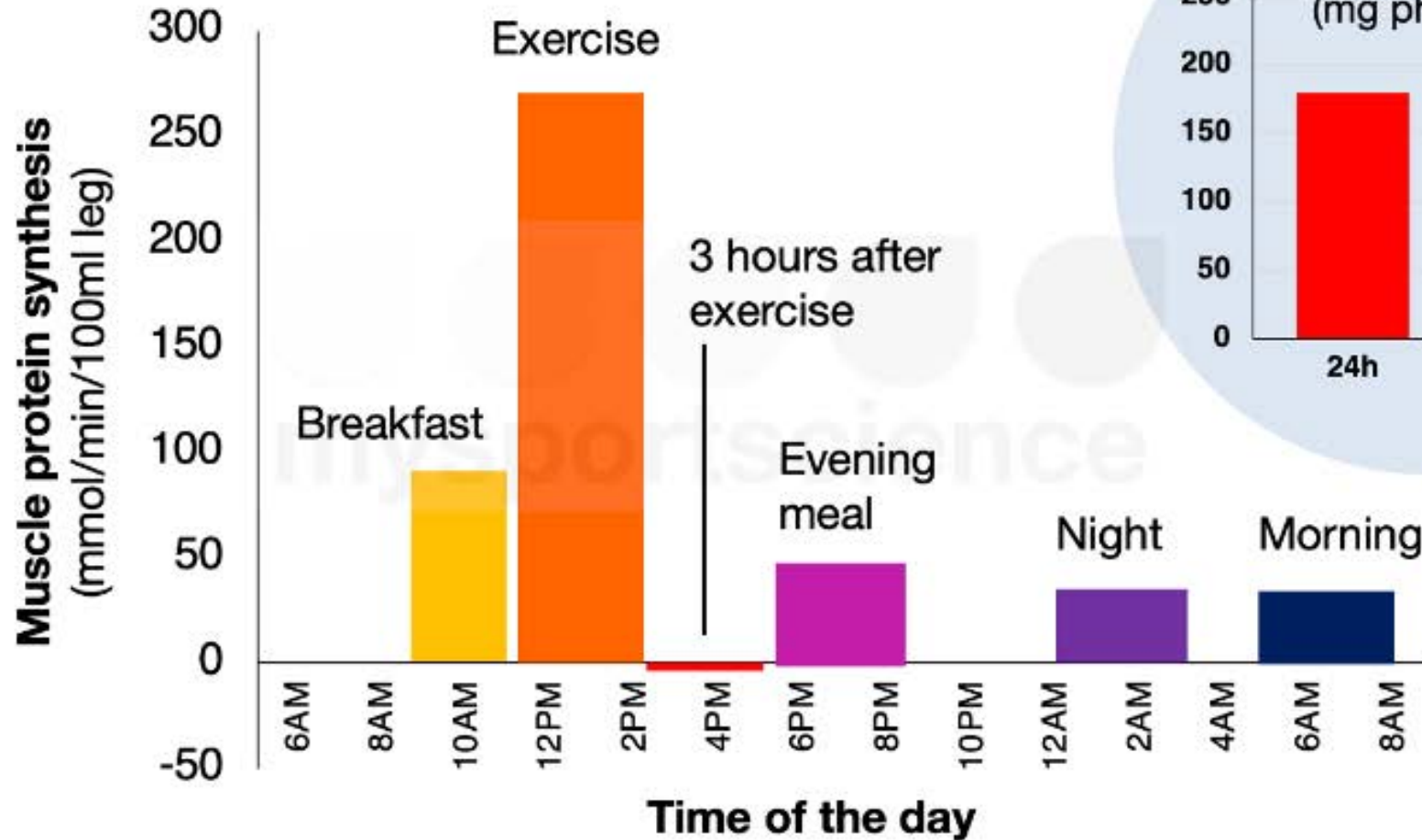
Veggie Sources

3+ portions over
the day
30g per meal +
snacks will get
you over
100g/day

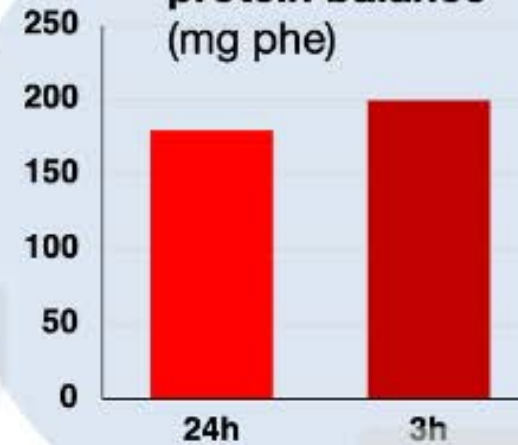
Here's what 35 grams of protein looks like

	AMOUNT	CALORIES
 Beef (cooked)	 100 grams = 1 serving* (the size of your palm)	250
 Almonds	 over 1 cup (3.3 servings); ½ cup (50 grams) = 1 serving*	960
 Peanut butter	          over 9 tbsp (9.4 servings); 1 tbsp = 1 serving*	860
 Hummus	  1¾ cups (14.2 servings); 2 tbsp = 1 serving*	740
 Black beans (cooked/canned)	  over 2 cups (4.3 servings); ½ cup = 1 serving*	520

Muscle protein synthesis over 24 hours with exercise and essential amino acid intake



Met muscle protein balance (mg phe)



This study showed that the increase in protein synthesis 3h after exercise is still present after 24h

What to eat when before practice or race days.



Review

- What macronutrient when?
- Last year's glycemic load concept for timing food
- Reading labels
- Common misconceptions

REFUEL

WITH CARBS

Exercise depletes muscle glycogen which has to be replenished after activity. within 30 minutes is best!

REBUILD

WITH PROTEIN

Protein is the nutrient that drives your body to create and repair damaged muscle tissue.
Less legs= More lean!

REHYDRATE

WITH WATER

20 oz for every lb lost
Monitor urine color

Canada's New Label

New Label

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 240mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

- 1 The serving size now appears in larger, bold font and some serving sizes have been updated.
- 2 Calories are now displayed in larger, bolder font.
- 3 Daily Values have been updated.
- 4 Added sugars, vitamin D, and potassium are now listed. Manufacturers must declare the amount in addition to percent Daily Value for vitamins and minerals.

Juice vs Whole Fruit



Marketing, Packaging and Perception

Nutrition Facts	
About 3.5 servings per container	
Serving Size	12 fl oz
Amount Per Serving	
Calories	140
% Daily Value	
Total Fat 0g	0%
Sodium 45mg	2%
Total Carbohydrate 39g	14%
Total Sugars 39g	
Includes 39g Added Sugars	
Protein 0g	78%
Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium, iron and potassium.	

Nutrition Facts	
Serving size 1 bottle (330mL)	
Amount per serving	
Calories	160
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 38g	14%
Dietary Fiber 0g	
Total Sugars 24g	
Includes 0g Added Sugars	
Protein <1g	0%
Vitamin D 0mcg	0%
Calcium 10mg	0%
Iron 0mg	0%
Potassium 310mg	6%
Vitamin C 79mg	90%
*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Marketing, Packaging and Perception

Nutrition Facts
About 3.5 servings per container
Serving Size 12 fl oz
Amount Per Serving
Calories 140
% Daily Value
Total Fat 0g 0%
Sodium 45mg 2%
Total Carbohydrate 39g 14%
Total Sugars 39g
Includes 39g Added Sugars 78%
Protein 0g
Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium, iron and potassium.

Coca-Cola
ORIGINAL TASTE
NUTRITION



100% Natural Apple Juice

NOT FROM CONCENTRATE NO ADDED SUGAR NO PRESERVATIVES NON GMO

100% JUICE

Nutrition Facts
Serving size 1 bottle (330mL)
Amount per serving
Calories 160
% Daily Value
Total Fat 0g 0%
Saturated Fat 0g 0%
Trans Fat 0g 0%
Cholesterol 0mg 0%
Sodium 0mg 0%
Total Carbohydrate 38g 14%
Dietary Fiber 0g 0%
Total Sugars 24g 0%
Includes 0g Added Sugars 0%
Protein <1g 0%
Vitamin D 0mcg 0%
Calcium 10mg 0%
Iron 0mg 0%
Potassium 310mg 6%
Vitamin C 70mg 96%
This % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

royal apple
NATURALLY CLOUDY



Marketing, Packaging and Perception

Nutrition Facts	
Valeur nutritive	
Per bar (31 g)	
par barre (31 g)	
Calories 150	% Daily Value*
	% valeur quotidienne*
Fat / Lipides 7 g	9 %
Saturated / saturés 4.5 g	23 %
+ Trans / trans 0 g	
Carbohydrate / Glucides 20 g	
Fibre / Fibres 1 g	4 %
Sugars / Sucres 12 g	12 %
Sugar Alcohols / Polyalcools 0 g	
Protein / Protéines 2 g	
Cholesterol / Cholestérol 0 mg	
Sodium 100 mg	4 %
Potassium 75 mg	2 %
Calcium 20 mg	2 %
Iron / Fer 0.5 mg	3 %
*5% or less is a little, 15% or more is a lot	
*5 % ou moins c'est peu, 15 % ou plus c'est beaucoup	

Nutrition Facts	
Serving Size 1 bar (2 oz) (57.0 g)	
Amount Per Serving	
Calories 271	Calories from Fat 122
% Daily Value*	
Total Fat 13.6g	21%
Saturated Fat 5.2g	26%
Trans Fat 0.2g	
Polyunsaturated Fat 1.7g	
Monounsaturated Fat 4.5g	
Cholesterol 7mg	2%
Sodium 140mg	6%
Total Carbohydrates 34.5g	12%
Dietary Fiber 1.3g	5%
Sugars 28.8g	
Protein 4.3g	
Vitamin A 2%	Vitamin C 0%
Calcium 5%	Iron 2%
* Based on a 2000 calorie diet	

[See more extended nutritional details](#)

Marketing, Packaging and Perception



Nutrition Facts Valeur nutritive		
Per bar (31 g) par barre (31 g)		
Calories 150	% Daily Value* % valeur quotidienne*	
Fat / Lipides 7 g	9 %	
Saturated / saturés 4.5 g	23 %	
+ Trans / trans 0 g		
Carbohydrate / Glucides 20 g		
Fibre / Fibres 1 g	4 %	
Sugars / Sucres 12 g	12 %	
Sugar Alcohols / Polyalcools 0 g		
Protein / Protéines 2 g		
Cholesterol / Cholestérol 0 mg		
Sodium 100 mg	4 %	
Potassium 75 mg	2 %	
Calcium 20 mg	2 %	
Iron / Fer 0.5 mg	3 %	
*5% or less is a little, 15% or more is a lot *5 % ou moins c'est peu, 15 % ou plus c'est beaucoup		



Nutrition Facts		
Serving Size 1 bar (2 oz) (57.0 g)		
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Polyunsaturated Fat 1.7g		
Monounsaturated Fat 4.5g		
Cholesterol 7mg		2%
Sodium 140mg		6%
Total Carbohydrates 34.5g		12%
Dietary Fiber 1.3g		5%
Sugars 28.8g		
Protein 4.3g		
Vitamin A 2%		Vitamin C 0%
Calcium 5%		Iron 2%
* Based on a 2000 calorie diet		

[See more extended nutritional details](#)

Supplements

- What are they?
- Why would you use them?
- Dangers?
- Are you actually deficient?
- Have you done the other 98%?



Performance Enhancement Supplements

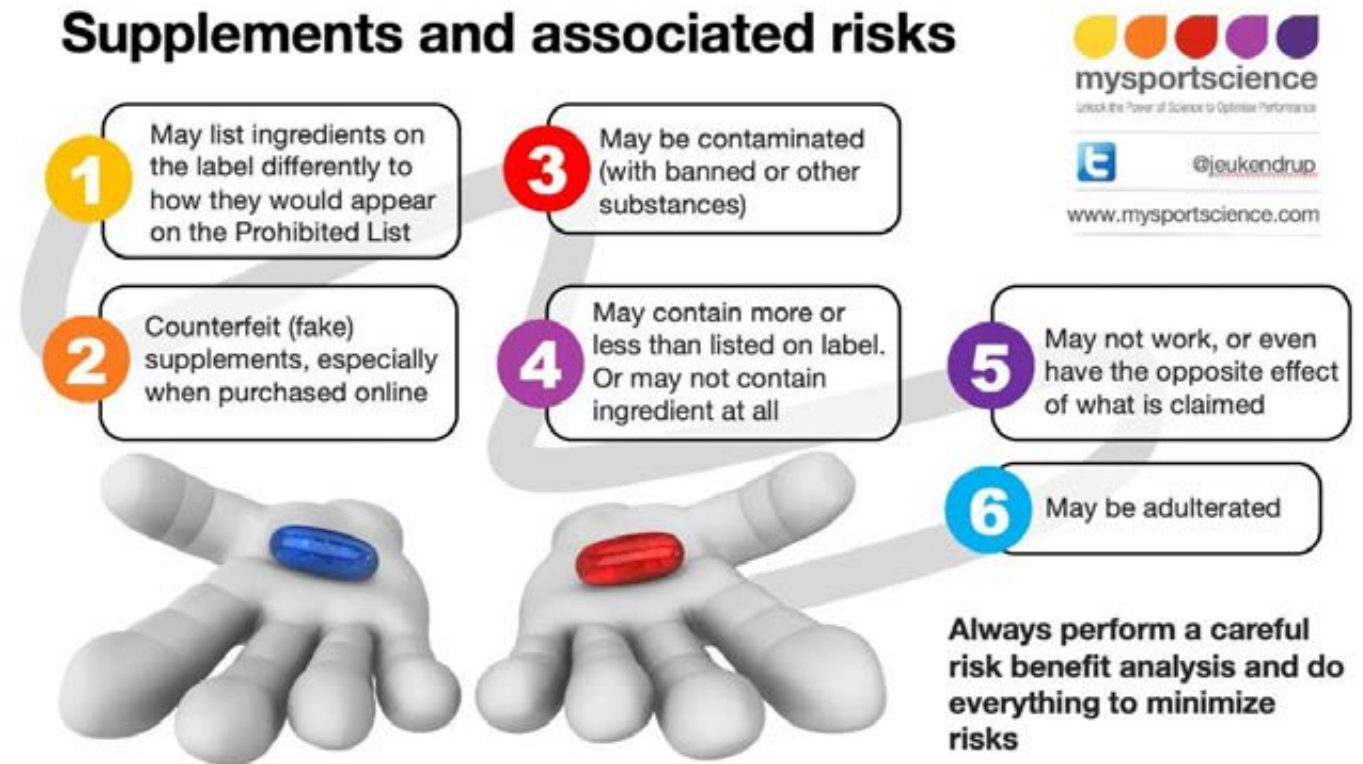
- THE TRUTH IS... True health and fitness come from consistent training, balanced nutrition, proper rest, and avoiding addictions—none of which can be bottled. Despite this, millions of Canadians rely on dietary supplements daily. Research shows little evidence supporting the effectiveness of most supplements. Prioritizing sustainable habits over hype is the key to lasting health benefits.

(ref. **performance-enhancers**
PDF (WWW.CANADA.CA))



Supplements

- The items with the lowest risk and highest rewards are proper training, nutrition and sleep.
- Presented next are some supplements that have at least some scientifically proven positive benefits and very low risk.



Vitamin D

Canadian RDA

- If you are between 2 and 50 years old: eat foods that contain vitamin D every day
- or**
- take a daily supplement containing 400 IU (10 µg) of vitamin D
 - Equivalent to 3 eggs or 3 oz of Salmon or ½ can of Tuna or 3 cups of milk.

SAFETY, ADVERSE REACTIONS AND CONTRAINDICATIONS
Canadians can safely take daily vitamin D supplements up to the current definition of tolerable upper intake level 4000 IU]], but doses above that require medical supervision. (ref. Health Canada)

Vitamin D and exercise performance

Study 1

967 (male and female) army recruits
Measurements of performance and Vitamin status

91% of men and 65% of women low in Vitamin D



4-6% of variation in 1.5 mile running performance explained by Vitamin D status (after controlling for fat mass, smoking and season)

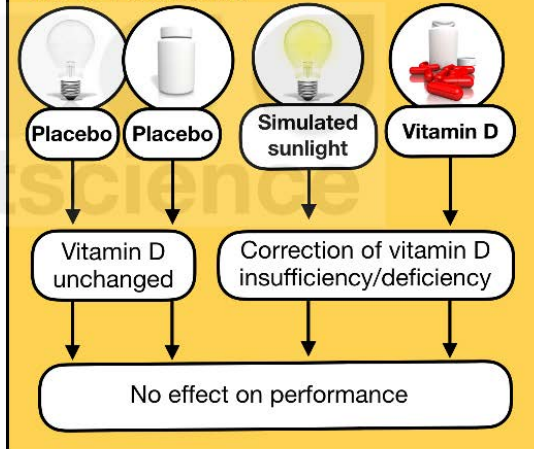


No effect on explosive power or lift strength

Carswell et al MSSE 2018

Study 2

137 male army recruits
12 week intervention in the winter:
One of 4 treatments:



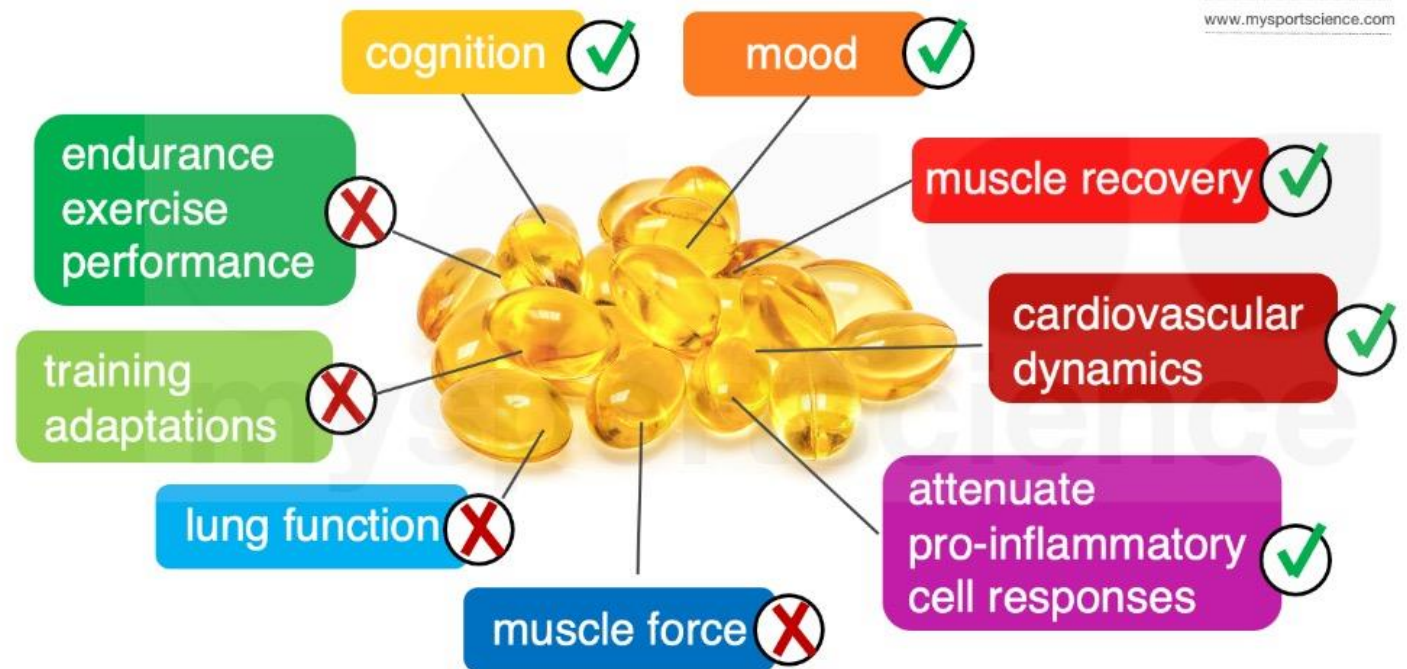
Fish Oil fish

– Omega 3

SAFETY, ADVERSE REACTIONS AND CONTRAINDICATIONS

Omega-3 fatty acids are generally considered safe for healthy individuals. However, high doses of omega-3 fatty acids may decrease the ability of your immune system to destroy disease-causing agents (such as viruses or bacteria) and may prolong bleeding times. (ref Health Canada for DND)

Evidence for fish oil for athletes



Whey Protein

What makes whey special?

Whey is a high quality protein, which means that it has all of the amino acids, including all of the essential amino acids. Whey is also a protein that is well absorbed, making its delivery faster than many other proteins.

SAFETY, ADVERSE REACTIONS AND CONTRAINDICATIONS

Eating large amounts of protein can cause an upset stomach and diarrhea. Excess protein intake will be stored as fat. Many of these products contain ingredients

How is whey protein made?

Fresh milk



Acidify
And add
coagulator



Curds will separate from the whey (liquid fraction)



Remove
watery fraction
(whey) and dry



Curds used for cheesemaking



Whey protein powder


mysportscience
Unlock the Power of Science to Optimize Performance



@jeukendrup

www.mysportscience.com

Whey Protein

I think the answer to the question **"should all athletes take whey protein supplements"** is **no**. Although studies show benefits of whey in a head to head competition with some other protein sources. And if 100 grams of whey is compared to 100 grams of another protein it may give slightly better results.

On the other hand if it is the only way you will get proper amounts of protein every day then it is a great idea.

Different types of whey

- 3 Hydrolysates**
 - Proteins that are pre-digested
 - Faster absorption
 - Most processed
 - Poorer taste
 - Most expensive
- 2 Isolates**
 - Typically 90% protein by weight.
 - Even lower lactose content
 - Nutrient content reduced
 - More expensive
- 1 Whey protein concentrates**
 - Least processed
 - Percentage protein between 30% and 80%.
 - Contains more nutrients found in whey
 - Cheapest form



Caffeine

SAFETY, ADVERSE REACTIONS AND CONTRAINDICATIONS Too much caffeine can cause anxiety, jitters, sleep difficulties (if taken within eight hours of bedtime), reduced concentration, diarrhea, irritability, increased blood pressure, dehydration, calcium loss and irregular/rapid heart beats. Frequent use of caffeine can lead to tolerance and, when use is abruptly stopped, negative withdrawal effects. Health Canada recommends a daily intake of less than 400 mg for healthy adults (approximately 3–4 cups of coffee). Regular intake above 500 mg a day (4–7 cups of coffee) represents a significant health risk and is not recommended. When rapid hydration is important, people should drink noncaffeinated fluids. (ref. Health Canada)



Caffeine



Original Blend Coffee

Dietary
Considerations*



Caffeine: 330mg

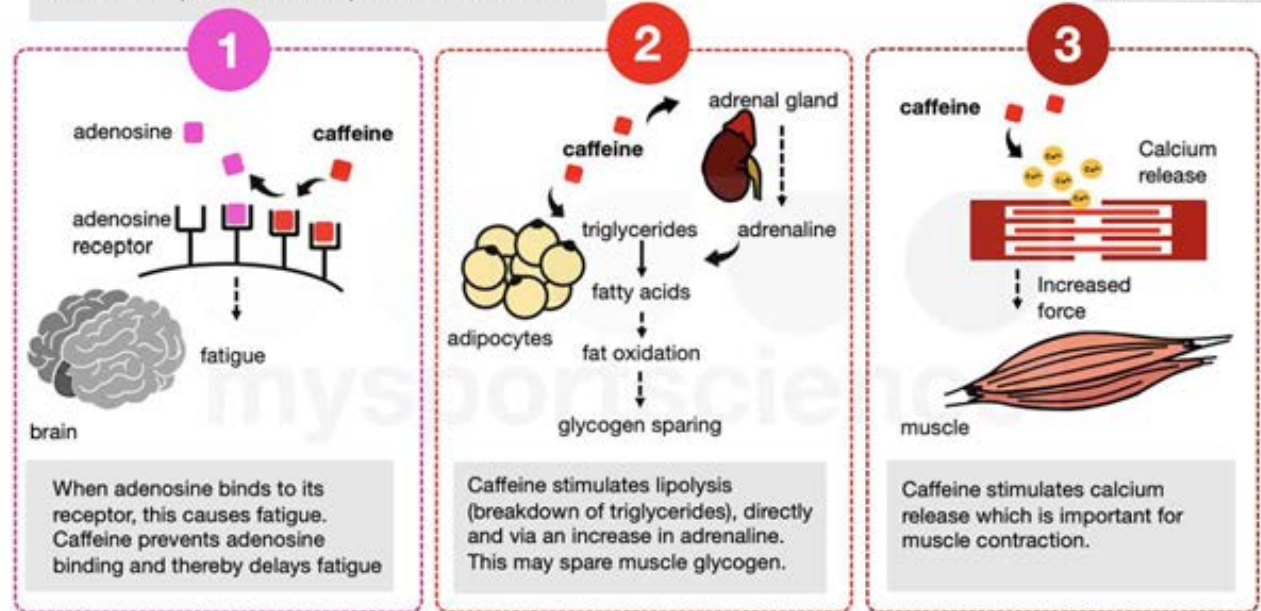
*Applies to standard menu item without customization

How *does* caffeine work?

Caffeine boosts performance by blocking adenosine, reducing fatigue, and dulling pain. It enhances alertness, reaction time, and endurance via adrenaline and fat oxidation but doesn't spare glycogen. Tolerance can develop as the body adapts, reducing its effectiveness. Athletes can manage this by cycling intake or using caffeine strategically. Effects vary, and excessive use may cause adverse outcomes. Careful experimentation ensures maximum benefits while minimizing risks.

How caffeine works

There are different theories, but number 1 (effect on the brain) is the most important mechanism



Creatine and endurance

How creatine could help or hinder endurance performance



Increase body mass

Can help glycogen synthesis

Can improve sprint performance also at the end of prolonged exercise

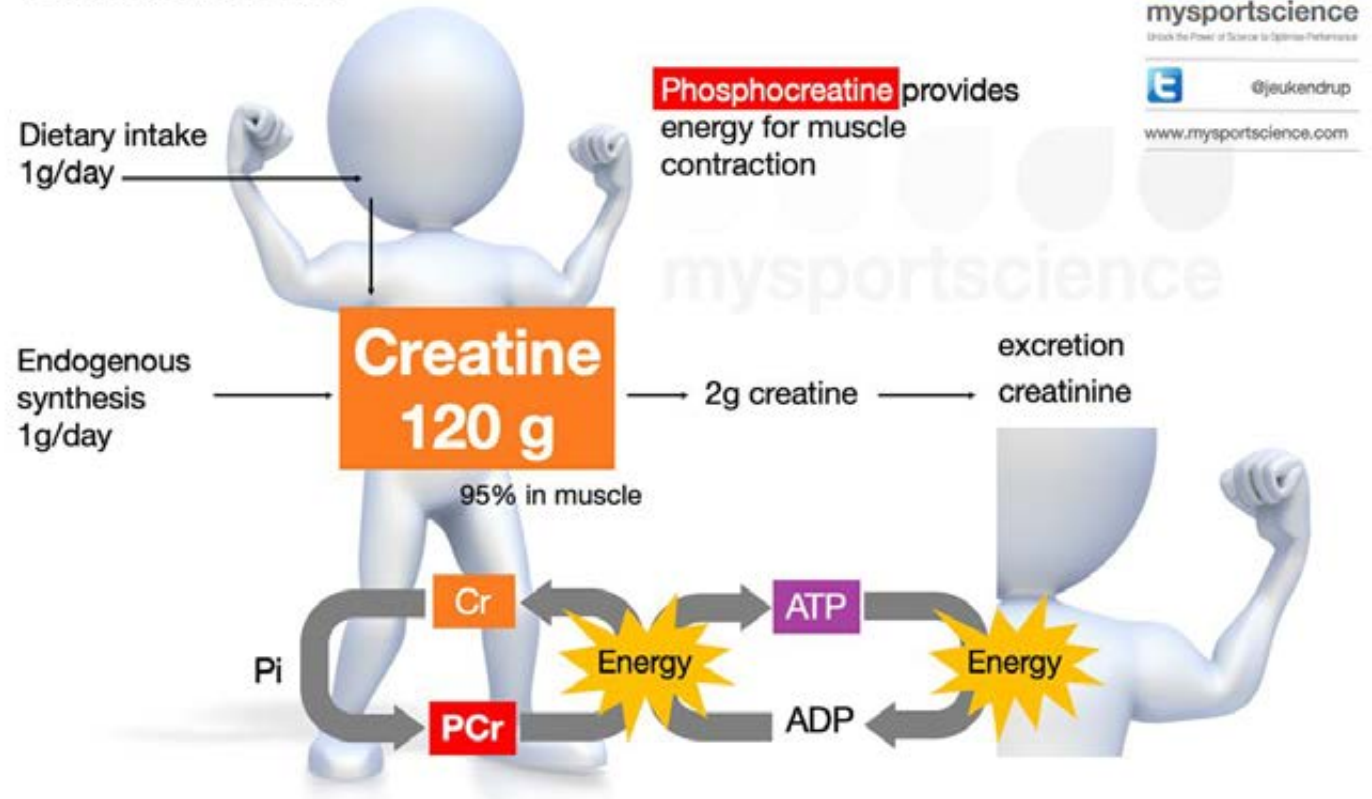


Creatine

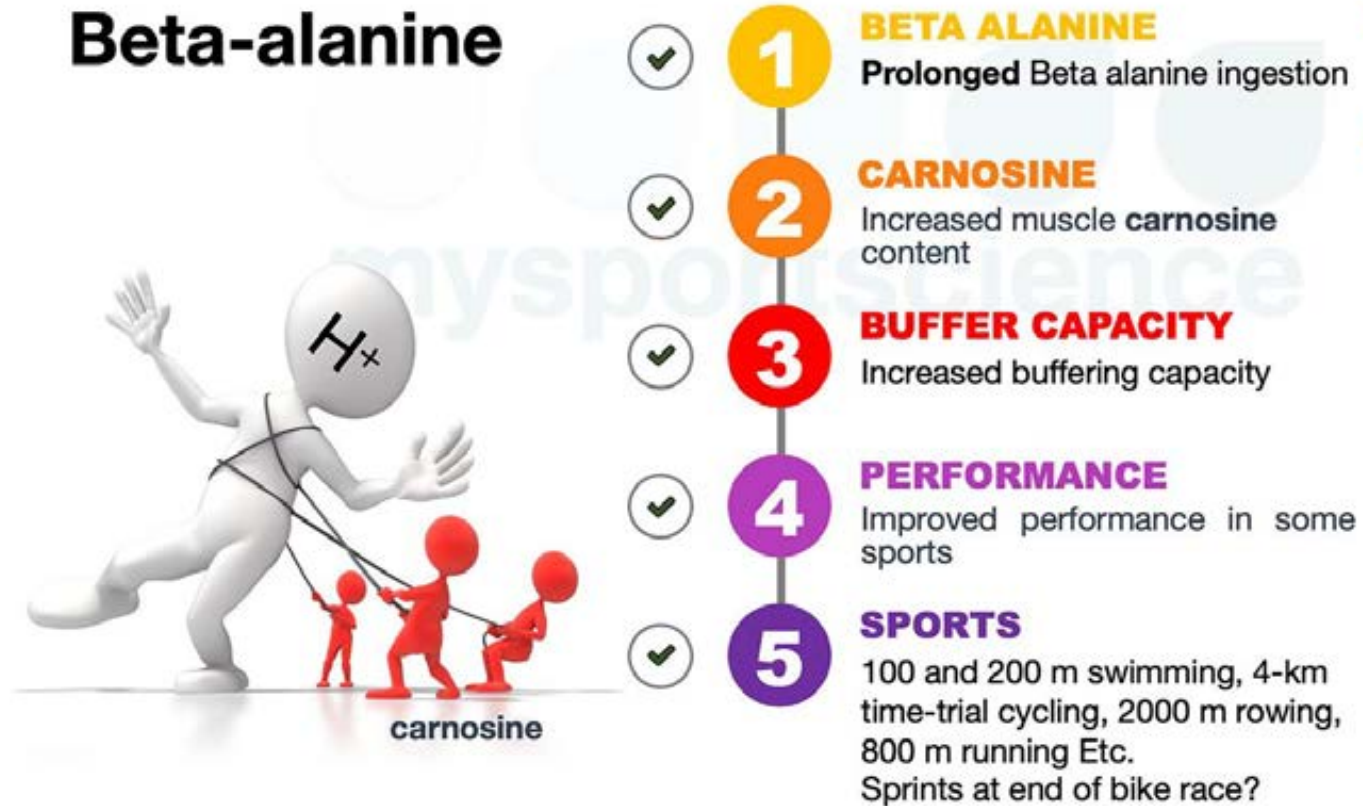
SAFETY, ADVERSE REACTIONS AND CONTRAINDICATIONS

The scientific evidence suggests creatine is generally safe to use for healthy individuals. Common side effects include water retention, stomach and/or muscle cramps, nausea, diarrhea, headaches and muscle tightness. (ref Health Canada for DND)

Creatine

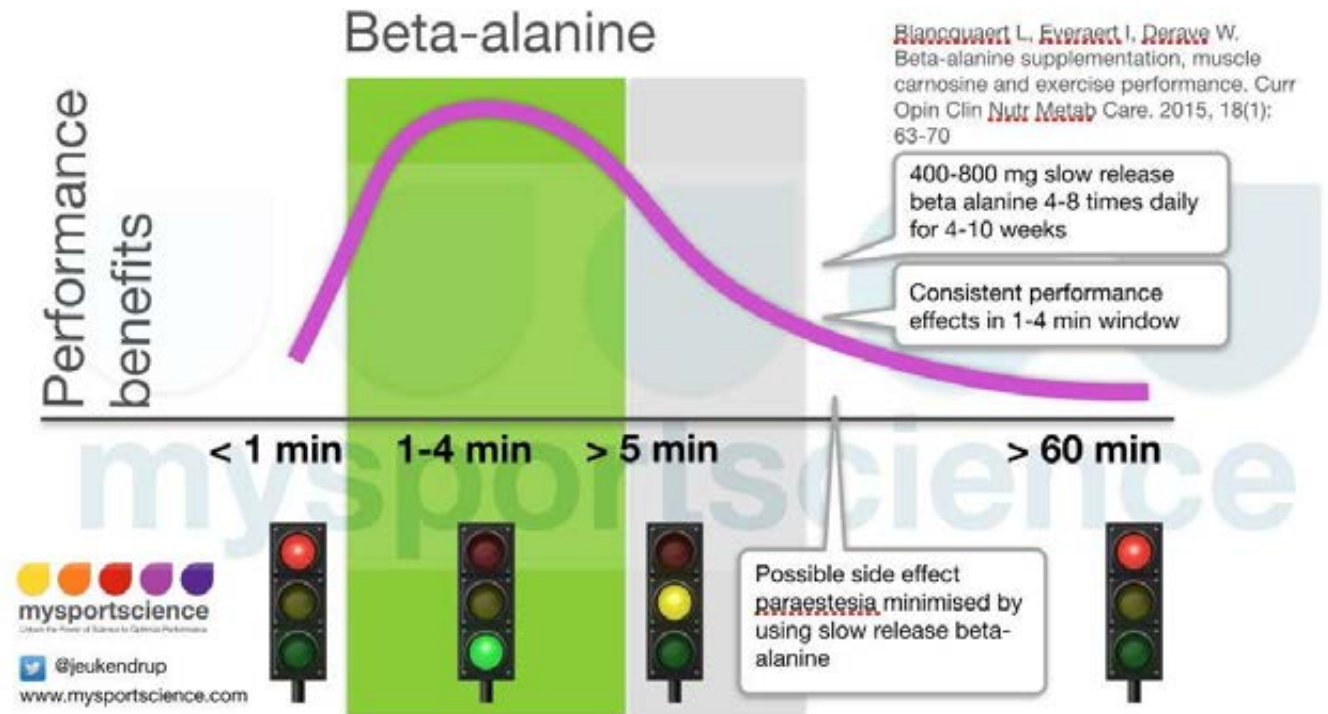


Beta Alanine



Beta Alanine

SAFETY, ADVERSE REACTIONS AND CONTRAINDICATIONS The only reported side effect is tingling on the surface of the body – something medically referred to as paresthesia. The sensation of tingling can range from mild to extremely painful and is not associated with any tissue damage.



Avoid products like this.

BULK UP - MUSCLE BUILDER

INGREDIENTS



TRIBULUS TERRESTRIS
Increases testosterone production, easing muscle build up

DHEA
Enhances protein synthesis and anabolism, resulting in muscle growth

DEER ANTLER POWDER
Enhances protein synthesis and anabolism, resulting in muscle growth

CHRYSLIN
Improves bodybuilding results

TONGKAT ALI ROOT POWDER
Increases lean body mass

RHODIOLA ROSEA ROOT
Improves muscle power and strength performance

ALPHA LIPOIC ACID
Increases or maintain lean muscle and decrease body fat

OCTACOSANOL
Enhances muscular strength and endurance
Vitamins & Minerals: Contributes to muscle function

BULK UP
MUSCLE BUILDER
* DHEA, Tribulus, Tongkat Ali
60 CAPSULES
POWER SUPPLEMENT

MEDICINAL INGREDIENTS/ INGRÉDIENTS MÉDICINAUX	
Serving Size: 1 scoop (12.6 g) Portion: 1 mesure (12,6 g) Servings Per Container: 40 Portions per container: 40	
	Amount Per Scoop Quantité par mesure
LIMITLESS PUMPS™ / POMES ILLIMITÉES™	
Citrulline Malate 2:1 / Malate de citrulline	3000 mg
Niacinamide	15 mg
Piperine / Pipérine (Piper nigrum Fruit (BioPerine®))	2.5 mg
LIMITLESS STRENGTH™ / FORCE ILLIMITÉE™	
Micronized Creatine Monohydrate / Créatine monohydratée micronisée	2500 mg
Beta-Alanine / Bêta-alanine	1600 mg
Betaine Anhydrous / Bétaine anhydre	1000 mg
LIMITLESS ENERGY™ / ÉNERGIE ILLIMITÉE™	
Taurine	500 mg
Caffeine / Caféine (from Caffeine Anhydrous, Dicalcium Phosphate / de caféine anhydre, phosphate de calcium)	150 mg
Theacrine / Théacrine (as TeaCrine®)	12.5 mg
LIMITLESS ENDURANCE™ / ENDURANCE ILLIMITÉE™	
L-Leucine	500 mg
L-Isoleucine	250 mg
L-Valine	250 mg
Choline (from 250mg of Choline Bitartrate / à partir de 250 mg de bitartrate de choline)	100 mg
LIMITLESS PERFORMANCE™ / PERFORMANCE ILLIMITÉE™	
L-Tyrosine	500 mg
L-Alpha-GPC (Choline alfoscerate / alfoscérate de choline)	75 mg
Huperzine A	25 mcg
NON-MEDICINAL INGREDIENTS: / INGRÉDIENTS NON-MÉDICINAUX	
Silicon dioxide, Natural Flavors, Sucralose Dioxyde de silicium, arômes naturels, sucralose	

Avoid products like this.

TOTAL WAR		
Supplement Facts		
Serving Size: 1 Scoop (14g)		
Servings Per Container: 30		
	Amount Per Serving	Per 100 G
L-Citrulline Malate	6g	41.4g
Beta-Alanine	3.2g	22.1g
Agmatine Sulfate	1g	6.9g
Taurine	1g	6.9g
Caffeine Anhydrous	250mg	1.7g
Eria Jarensis Extract	200mg	0.85g
Di-Caffeine Malate	100mg	0.69g
Theobromine	100mg	0.69g
Theobroma cacao extract (seed)		
(*N-Coumaroyl-dopamine 20%)	50mg	0.35g
Naringin 98%	25mg	0.17g
Black Pepper Extract, 95% Piperine	10mg	0.07g
Yohimbine HCL	5mg	0.03g
**Daily Value (DV) Not Established		
Other Ingredients: Natural and Artificial Flavors, Sucralose, Acesulfame Potassium, Silica, Citric Acid, Sodium Citrate, Maltodextrin.		

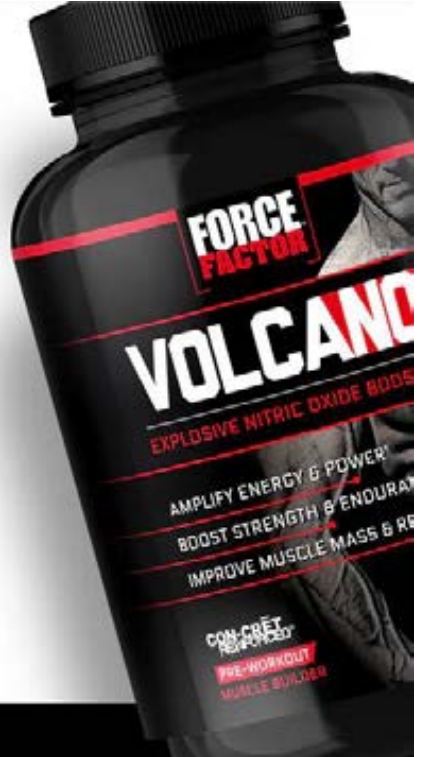
STIMULANT-FREE
PRE-WORKOUT

HELPS BUILD
MUSCLE & STRENGTH

BOOSTS
NITRIC OXIDE &
BLOOD FLOW

TRIGGERS
MASSIVE PUMPS

SPEEDS UP
RECOVERY



Q&A

- How do I deal with a morning practice, school and then evening sports or practice?
- What sports drinks are best?
- Are supplements good?
- Can you lose weight and gain fitness/muscle at the same time?
- How many calories do I need?
- Is pizza Bad? Is ice cream bad? Is broccoli good?
- What is the difference between eating an apple and drinking apple juice?