



Upcoming Dates

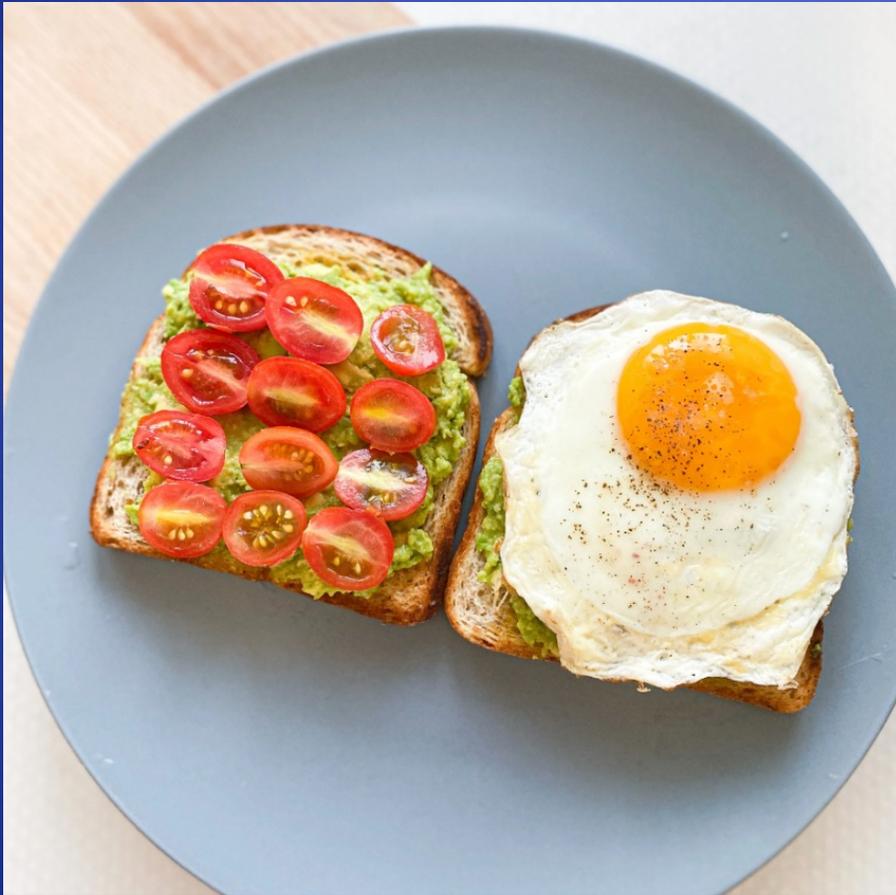
- MV CharacterLab on Monday, November 3 at lunchtime, D101
 - Gratitude
 - This is optional
- SCVALs on Tuesday, November 4
- Senior run on Wednesday, November 5 (normal practice time). This is our last 'official' practice but everyone is invited to keep coming if you want to work with the CCS group.
- 2026 Leadership Talk on Friday, November 7, D101
 - Everyone is invited
 - **Required** for runners going to CCS and for anyone who wants to be a captain
 - If you want to help build team culture, integrate next year's first year runners, and be a better leader even if you don't want to be a captain yet, please come! I really want the whole team in the room

Basic Nutrition for Endurance Athletes

Monta Vista High School

2025-26 Season

Which is a healthier breakfast?



A?



B?

Which is a healthier breakfast?



A?



B?

Which is a healthier lunch?



A?



B?

Which is a healthier lunch?



A?



B?

Which is a healthier snack?



A?



B?

Which is a healthier snack?



A?



B?

Which is a healthier dinner?



A?



B?

Which is a healthier dinner?



A?



B?

Which is a healthier dinner?



Trick Question!
I'm not sure either...
...and I'm not sure the difference matters!

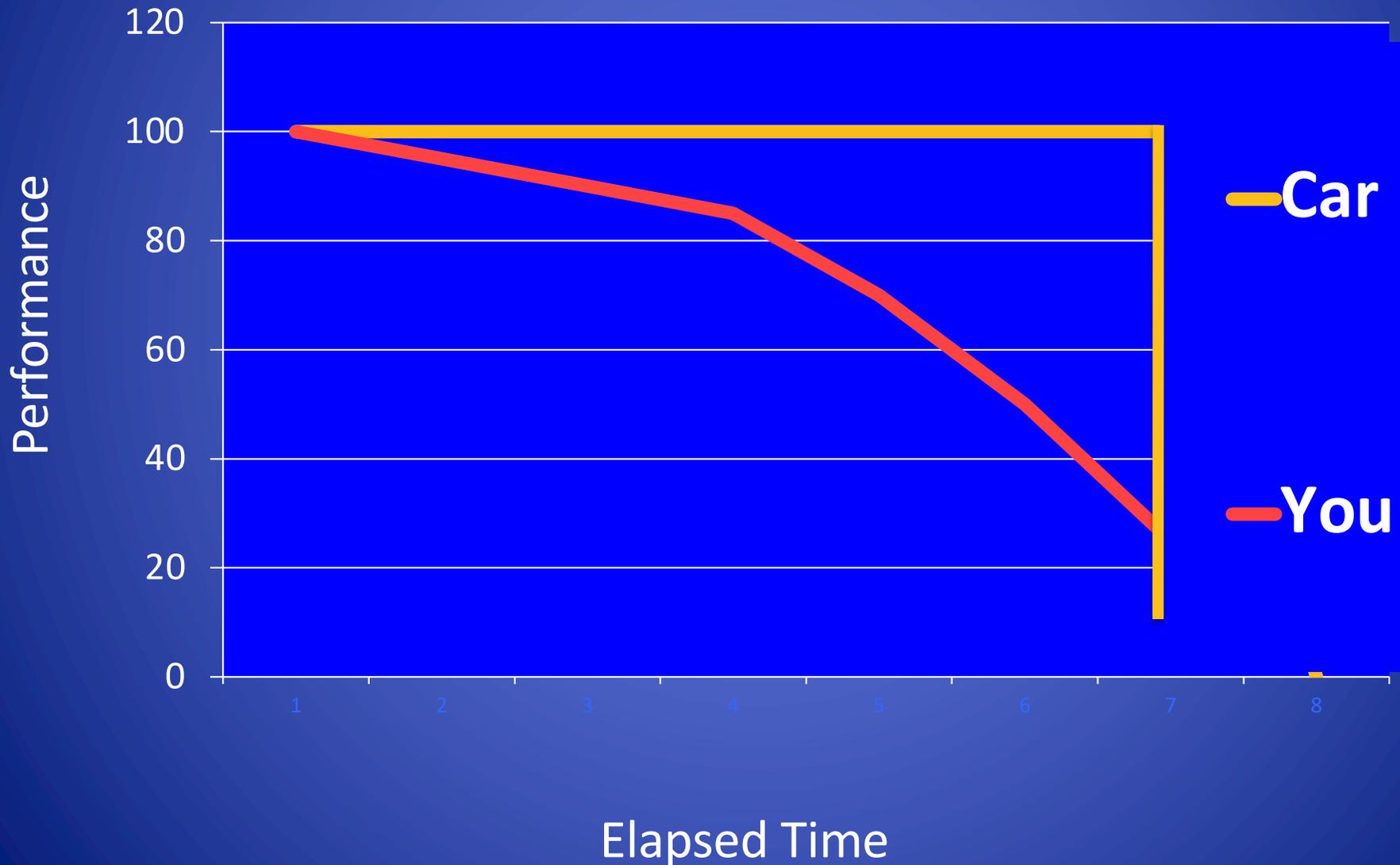
So, what's the point?

- We already know what is more nutritious to eat!
 - We just need to follow through
- Good nutrition is not a mystery
- A few guidelines get us 80% of the results
- Some athletes have special health issues
 - Talk to your doctor

Why?

- For your athletic performance
 - **Nutrition is the #1 defense against fatigue**
 - Sleep is #2 (though I could also find data to argue nutrition and sleep are 1a/1b—just get sleep, too, OK? 😊)
 - Training is #3
 - ***Fatigue is the body's defense against depleted energy stores***
- For your team
 - We are counting on each other
- For your life and health
 - You could be the first generation with a lower life expectancy than the generation before you

Your Body Needs Fuel, But Your Body Is Not A Car



Wide Variety

- Lots of complex carbohydrates
 - Many different fruits and vegetables
- Proteins
 - Meat, fish, nuts, eggs...
- Don't avoid **healthy** fats
 - For example, avocados preferred over potato chips; both have fat, but avocados, olive oil, other foods have healthier fats

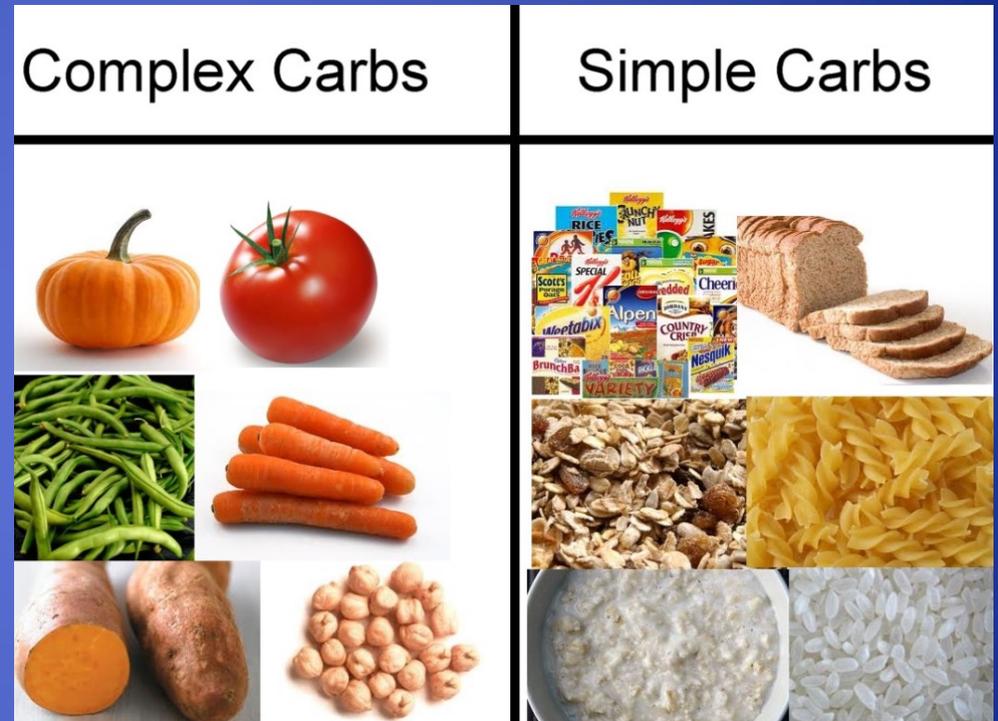
A Few Simple Guidelines

- Eat a wide variety of whole foods
- Eat foods as close to their natural state as possible
- Minimize soda, convenience/snack foods in bags—you know what to avoid
- Rule of thumb—the more you have to guess what went into something, the less likely it is to be good for you



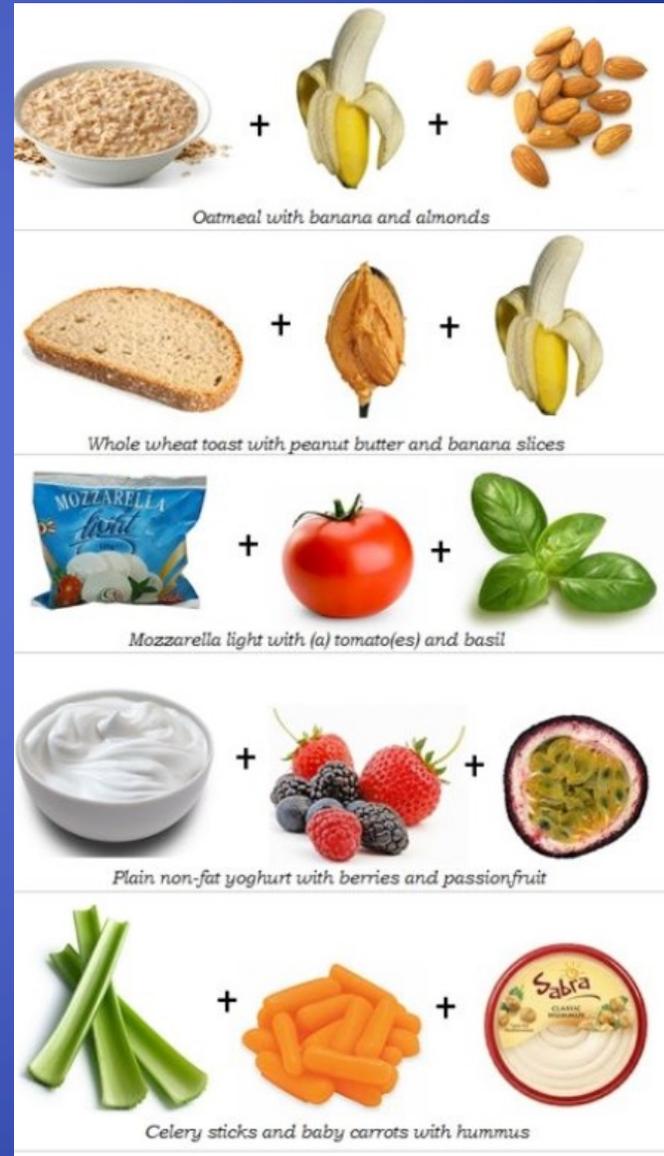
A Few Simple Guidelines

- None of you are on “diets”
- You are an athlete so...lots of complex carbs
 - Fruits and vegetables
- Proteins and healthy fats
- **HEALTHY Snacking** is a good idea for endurance athletes:
 - 4 to 5 ‘meals’ a day



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How much Gatorade do you need to drink to get a banana's worth of potassium?



More than a gallon of Gatorade! (even more for Gatorade Zero or G2)



Water, a banana and some trail mix are a
great post-workout snack

Pre-Race

- Mix of complex carbs and proteins
- Possibilities:
 - Turkey sandwich, small salad and some fruit, oatmeal cookie
 - Pasta salad with tuna and vegetables
 - Veggie burrito and glass of milk
 - Breakfasts:
 - Oatmeal with fruit and nuts
 - Toast with peanut butter and jam, and a banana
- Try different things, write these down, see how it works for you—there is no magic here

Post Workout/Race Recovery



Post Work Out Recovery

- Getting refueled within 30 minutes after a workout is best (< 1 hour)
 - Repair the body
 - Reload the tanks
- Mix of protein and carbohydrates:
 - Chocolate milk
 - Trail mix and fruit
 - Peanut butter sandwich
 - There are high quality bars too, convenient but pricey
- A good meal that night is important to continue the process
 - Protein
 - Carbs
 - Healthy fats (yes, fats!)
- Also...
 - Hydration
 - Sleep
 - Stretching
 - Elevate legs

Recovery nutrition requires deliberate planning!

Recovery: Chocolate Milk is pretty good and can be convenient



- These little containers of chocolate milk are sold by the case at Costco, on-line, other places...
 - Pretty convenient to keep in your bag for after practice/race.
- Other good things:
 - Half a sandwich
 - Container of cut up fruit
 - Adding some nuts for protein is even better
 - Banana
 - High-quality food bar (not something that is basically a candy bar)
 - Recovery fluid mix (e.g. FLUID)

Athletes and Diets

- High school athletes in training **should not be on 'diets'**
 - Particularly low-carb diets
 - Low-carb diets will tell the athlete's body to power down, start using proteins as fuel
- Athletes should have healthy eating **habits**
- A healthy diet does not mean being perfect
 - Indulging NOW AND THEN is fine
 - Athletes are not expected to be monks (or nuns)
- Training + healthy eating and the athlete's body will find it's balance

NO ONE ON THIS TEAM SHOULD BE
ON A '**DIET**'

EVERYONE ON THIS TEAM SHOULD
BE EATING HEALTHY & 'CLEAN'

5 'MEALS' (3 meals, 2 snacks) A DAY IS
A GOOD IDEA

Supplements

- Multivitamins are OK but are not a substitute for good nutrition
- Illegal supplements are, well, illegal
 - And dangerous
- Other legal supplements, most pills you get on-line or from "performance" stores, are generally untested, unproven, and risks are unknown (tested iron supplements after a blood test and doctor advice are OK)
- **Do NOT self-prescribe supplements**; talk to your doctor, parents **AND** your coach

Eating wisely is a better idea than
supplements

Hydration

- How do you know how much you perspire?
 - Design the experiment

Average 120lb Runner Horse-Garrods

Average 120lb Runner Horse-Garrods

- 80 degrees
- 120 pound runner ~ 4.3oz/mile
- Horse-Garrods ~ 7.3 miles

~31.4oz

Adjust rate up or down ~1% per pound, ~0.6% per degree

Effects of Mild Dehydration (2-4%)

- Decreased power output
- Decreased endurance
- Fatigue
- Poor concentration
- Headaches

Electrolytes

- What do electrolytes do for us?
 - Electrical impulses across cells
- These electrical impulses control:
 - Vision
 - Movement
 - Thinking
- Cramping

Electrolytes

- What electrolytes do we lose with sweat?

Electrolytes

- What electrolytes do we lose with sweat?
 - Sodium
 - Magnesium
 - Calcium
 - Potassium

Electrolytes

- What electrolytes do we lose with sweat?
 - Sodium
 - Salt in your food, Tomato or chicken soup, pretzels...
 - Magnesium
 - Bananas, almonds, cashews, avocados, peas, beans...
 - Calcium
 - Milk, yogurt, cheese, spinach, kale, cabbage, tofu...
 - Potassium
 - Meat, salmon, cod, bananas, citrus, avocados, tomatoes, cantaloupes, potatoes...

What Should You Do?

- **Prepare.**
 - Keep yourself hydrated at all times.
 - Start the day with a glass of water.
 - Drink small amounts of water throughout the day.
 - Get a water bottle, finish it by lunch, fill it and start again.
 - *Why is a drinking faucet not as good as bottled water?*
- **Prevent.**
 - During training, try to drink 4-6 oz of water every 20 minutes
 - Drink before you feel thirsty!
 - Consider carrying a hand-held.
- **Monitor.**
 - If you are rarely thirsty, and you are producing about 1.5L of clear or pale yellow urine each day, you are probably drinking enough fluids (source: Mayo Clinic website).

Iron

- So important for girls and boys
- If I knew in high school what I knew now, I'd get a serum ferritin (iron) test before every one of my XC and track seasons
- Costs less than shoes
- I do get this done about every year
- Having appropriate iron levels helps recovery, endurance...and makes running fun
- **It's science.**

Pro Athletes, the Internet and Internet Running Influencers, and You

- In 2011, I was 'shadowing' pro runner Josh Cox
 - Josh was training for the 2012 Olympic Marathon Trials
 - I was training for the Houston Marathon the next day
- Josh shared all his workouts with me
 - Terrance Mahon was his coach for this cycle
- **Josh also had a personal nutritionist working with him to optimize his consumption**

I did not just copy what the nutritionist told Josh. Why do you think I didn't?

Pro Athletes, the Internet, and You

Why do you think I did not copy Josh's nutritionist's recommendations?

- a) Josh was a pro runner and I was not
- b) The nutritionist was working with Josh, not me
- c) Josh was at the margins of performance—150 miles per week, trying to make the Olympic team, he had worked his body professionally for years
- d) Josh had fewer 'levers' to push than me, there were things he already did that I should work on before worrying about the things on the edge

Thought 1

Maybe before pills and powders, think about **more** vegetables and **less** chips, **more** fruit **less** French fries, **more** water **less** sodas/energy drinks

Thought 2

Please don't just do everything you read on the internet.
Talk to your doctor, your parents, me.

Moral: Do the work don't chase magic bullets.

Thought experiment!

What do you think will make the most difference to your racing performance (and health) over your career, or season:

- Before your race, taking a caffeine pill that you read about on the internet,
- or
- Taking time to prepare for after your race, changing your recovery food from a handful of French fries or Monster energy drink to chocolate milk or a PBJ sandwich

?

Are you thinking as much about your post-race as your pre-race?
Are you thinking more about long-term habits that can help you,
or short-term fixes and magic bullets?

Conclusion

- Nutrition is the frontier in athletic performance—and your long-term health
 - A pill does not replace good nutrition
- Common sense and self-discipline will get us most of the way to a healthy diet that supports excellent athletic performance
 - Don't let perfection be the enemy of good
 - Some athletes will have special issues
 - Further nutrition optimization is possible
- If you don't feel comfortable talking to your doctor, parents, and your coach about your nutrition experiment, you probably should not be doing it



Gratitude

is the appreciation for the benefits we receive from others, and the desire to reciprocate.

Those who demonstrate gratitude—and those who don't—see life differently.

- Individuals demonstrating gratitude tend to emphasize language related to gifts, givers, blessings, blessed, fortune, fortunate, and abundance.
- Individuals who don't demonstrate gratitude, on the other hand, tend to focus on deprivation, deservingness, regrets, lack, need, scarcity, and loss.



Gratitude

is the appreciation for the benefits we receive from others, and the desire to reciprocate.

A grateful person might think, “I get to go to class today,” whereas an ungrateful person might think, “Why do I have to learn all this useless stuff?”

A grateful person might think, “I ran further today than I did last week,” whereas an ungrateful person might think, “I wish I were as fast as him.”

Research shows that when you are reflecting on gratitude, it's most effective when you are specific.

Instead of saying/thinking, "I'm grateful for my mom," try saying/thinking, "I'm grateful that my mom makes me breakfast every day."

What the Research Says

Gratitude is important and is correlated with positive life outcomes.

Studies show gratitude is positively related to hope, forgiveness, pride, contentment, optimism, inspiration, and global positive affect.

Clinical tests have shown that people can build and improve their gratitude.

By the way...one of the leading researchers in the area of 'gratitude' is (relatively) local—Dr. Robert Emmons of UC Davis. If you end up at UC Davis you could take a class from Dr. Emmons!