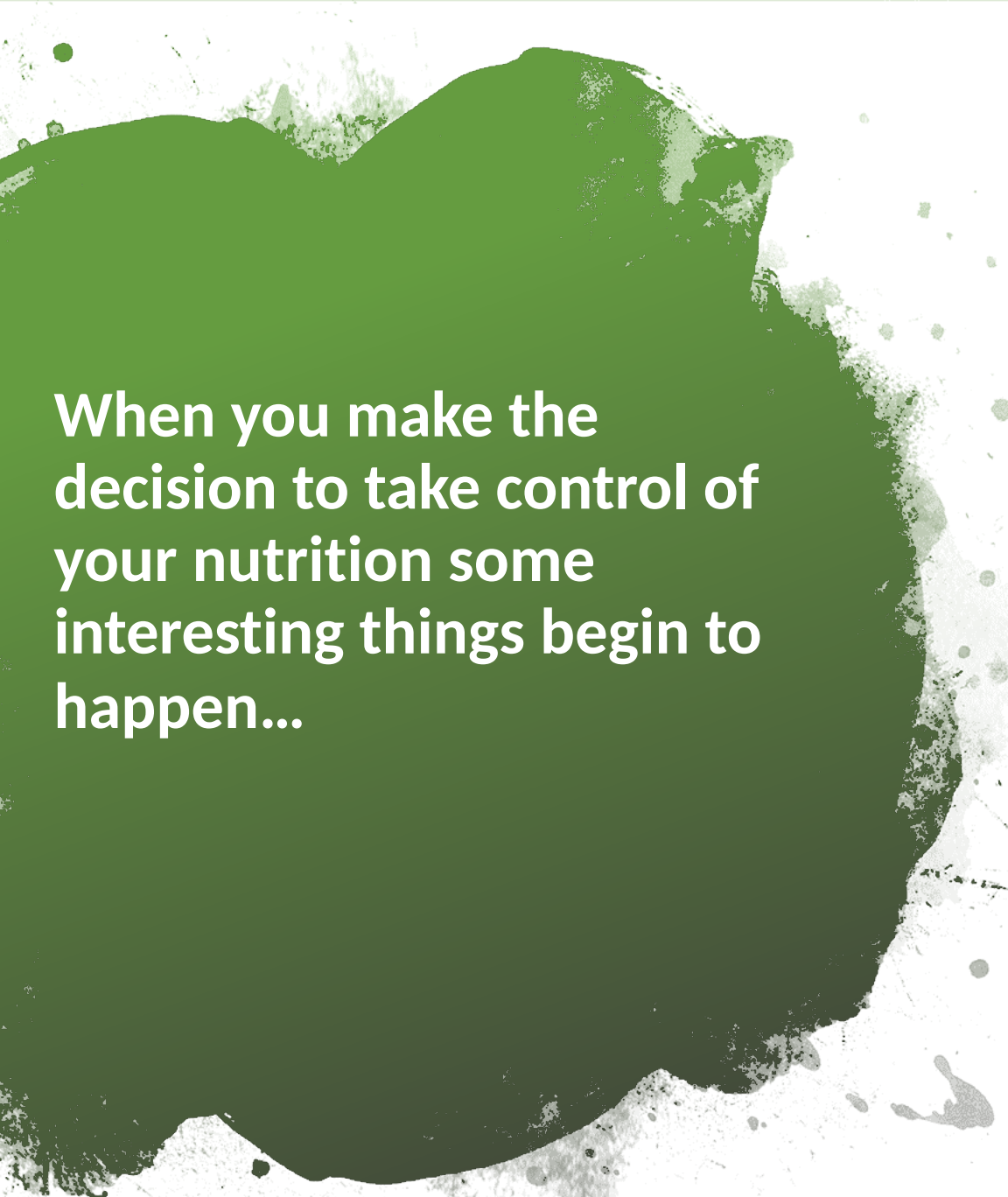


**FALL SPORTS BOYS
ROSLYN ATHLETICS**

NUTRITION TIPS FOR PEAK PERFORMANCE

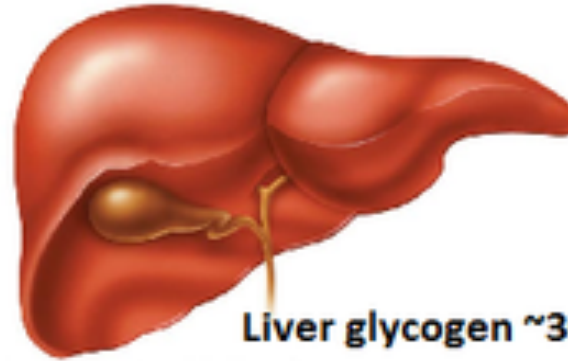
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When you make the decision to take control of your nutrition some interesting things begin to happen...

- **You recover faster between workouts.**
- **You perform better during and after competition.**
- **You reduce risk of Injury and speed up healing.**
- **You have higher, more consistent energy levels.**
- **Your overall focus and concentration improves.**
- **You improve immune function.**
- **You enjoy your sport more!**

The body's 'fuel tanks'



Liver glycogen ~300 kcal

Muscle Glycogen ~2000 kcal
Muscle triglyceride (fat) ~4000 kcal

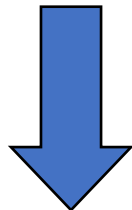


Adipose tissue (fat) ~100000 kcal!

Blood glucose ~40kcal



Unrefined
Carbohydrates



GLYCOGEN



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Glucose



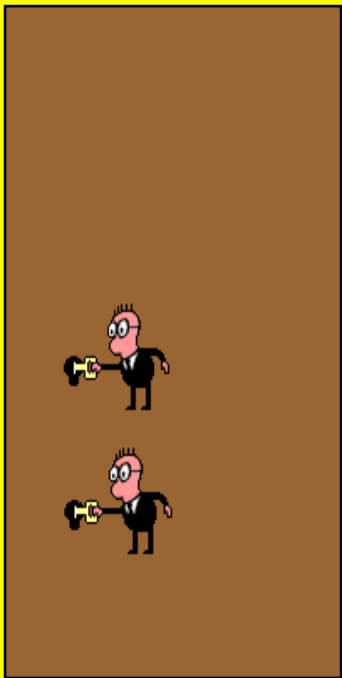
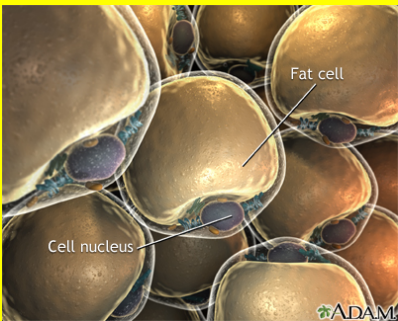
Oxygen



Glycogen
(Stored
Carbohydrate)

KAREN SOSSIN
NUTRITION

Healthy Fats



Nutrition Game Plan

Which Tip Suits YOU....

- 1. Choose Carbs for Fuel**
- 2. Protein for Power**
- 3. Fear Not Your Fats**
- 4. Calcium Concerns**
- 5. Iron Intake**

- 6. Stay Hydrated**
- 7. Fuel your tank before practice or a game**
- 8. Recovery is Everything**
- 9. Unrefined Carbohydrates + Quality Protein + Healthy Fats = Personal Best**
- 10. Get Faster and Stronger Wisely**

How to Fill your Fuel Tank

• Carbohydrates

- Variety of Colorful fruits and veggies, whole grains (oatmeal, quinoa, brown rice, amaranth), legumes (black beans, chickpeas, kidney beans, white beans)
- 5 servings of Fruits and Veggies/day
- Rainbow of F & V
- Glycogen stores will determine your performance
- Choose according to training intensity; more some days, less others.



• Fats

- Absorbs nutrients, balances energy levels, essential fatty acids, hormone production, protects vital organs, insulator, fuel source, feeling of fullness and satisfaction
- Salmon, avocados, almonds, pistachios, walnuts, flaxseeds, chia seeds, hemp seeds, nut butters, olive oil, grass fed meat and dairy
- Choose fats close to the source, Not all are created equal

• Protein

- Essential for growth, build, repair, hair, nails, skin, organs, bones, immune system, not a major source of energy, unless total calories consumed is insufficient
- Fish, chicken, lean meats, cottage cheese, eggs, greek yogurt, lentils, tempeh, chickpeas, black beans, quinoa, nuts, seeds
- Growing athletes have increased needs, easily met through real food. Relying on supplements can leave one short of other nutrients.
- ***Time accordingly.*** Spread required amount/day over 4 -6 meals and snacks; 15 – 30 g/meal; 10 – 15g/snack



Nutrients of Interest for Growing Athletes

You don't need dairy to get
Calcium



Fortified Almond,
Rice, or Soy Milk



Edamame (Soybeans)



Sesame Seeds



Kale



Collard
Greens



Fortified
Breakfast
Cereal



Tofu



Broccoli



Fortified
Orange
Juice

VeganStreet.com
NUTRITION

good sources of
plant based **IRON**

chickpeas, kidney beans, butter
beans and other legumes



quinoa

oatmeal



pepitas, flaxseeds, chia
seeds and other seeds



dark chocolate and
cocoa powder



spinach and other
dark green leafy
vegetables



dates, raisins,
dried apricots
and other dried
fruits



peanuts, almonds,
cashews and
other nuts



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HYDRATE – PERFORM GREAT!

**2-3 Hours Before
Exercise**



**One Water Bottle
(17-20 ounces)**



**Every 20 Minutes of
Exercise**



**Half of One Water Bottle*
(6-10 ounces)**



After Exercise

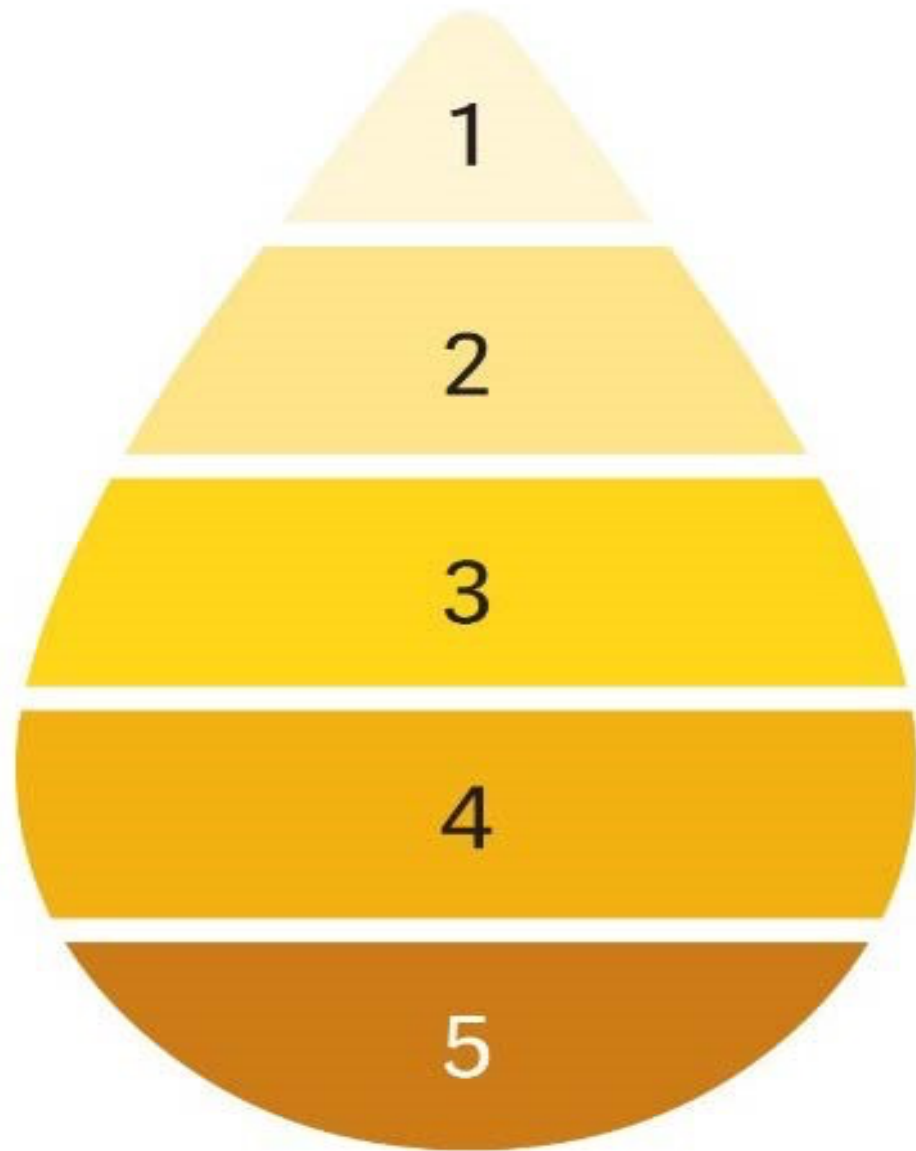


**One and a Half Water Bottles for
Every Pound of Sweat Loss
(20-24 ounces)**



*May vary by exercise.

**Recommended by the National Athletic Trainers Association



Hydrated
Ideal

Mildly dehydrated
Start to increase water intake

Dehydrated
Drink more water

Energy Drinks

- Not the same as Sports Drinks
- Often contain harmful ingredients which can lead to
 - Anxiety
 - Insomnia
 - Dental Erosion
 - Irregular Heartbeat
 - Elevated Blood pressure
 - Seizures
 - Heart attack
- Dangerous ingredients;
 - Caffeine
 - Ginseng
 - Guarana
 - Taurine
 - Gingko Biloba
 - Excessive Sugar





Pre-Training/competition

- Your glycogen stores come from your training diet..NOT from one meal..
- The purpose of pre comp nutrition is simple to offset fatigue by topping off energy levels.



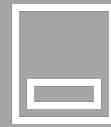
Pre-exercise Fueling Windows

≤ 1 hour	~2 hours	~3 hours	≥ 4 hours
Keep it simple: water and easy to digest carbs	Water/Sports Drinks, Carbohydrates	Mini mixed meal with fluids	Pre-game meal with fluids
Low protein, fat, and fiber	Low protein, fat, and fiber	Include some protein, fat, and fiber	Whole grain foods, low fat protein, starchy vegetables
100-200 kcals	200-300 kcals	300-400 kcals	400 + kcals
<u>Examples:</u> sports drink, small banana OR ½ sport bar & water/juice	<u>Examples:</u> Toast/bagel with jam and water/juice	<u>Examples:</u> whole wheat turkey sandwich, fruit, fluids	<u>Examples:</u> chicken, bean and rice burrito and water or low fat milk/juice

Recovery
Nutrition: How
soon after
exercise **SHOULD**
you you
consume a meal
or a snack?



A. Right after I get done with practice or a game.



B. Within 2 hours.



C. Within 3–4 hours.



D. 5 hours or more after a practice or game

THREE-STEP RECOVERY NUTRITION

- Within 30 minutes post-workout:

Step 1. Refuel your body's energy reserves with at least 60 grams of carbohydrate in order to maximize this *window of opportunity for glycogen storage*.

Step 2. Repair and rebuild stressed muscle tissue with at least 15 grams of protein.

Step 3. Rehydrate with at least 20 ounces of water and/or electrolyte beverage for every pound lost during practice.



KAREN SOSSIN
NUTRITION



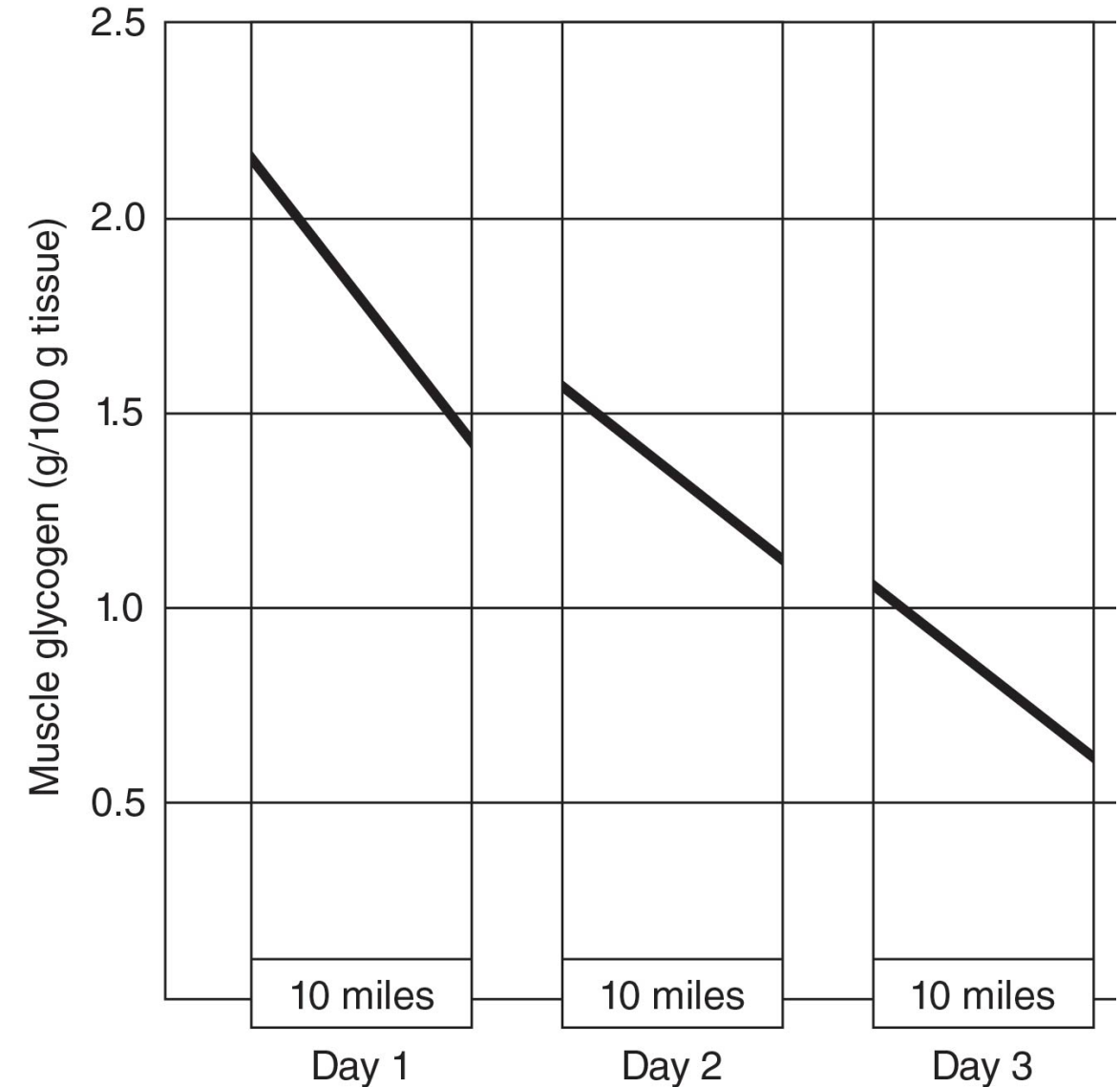
Practice may end with a cool down and stretching, but practice is not completely finished until a recovery snack/meal and fluid is consumed.

Carbohydrates replace depleted glycogen stores

- Day 3



Glycogen Fuel Tank



Adapted, with permission, from D.L. Costill, et al., 1971.

Pre comp

- 3 – 4 hours
 - Whole Wheat Turkey and Avocado sandwich
 - Yogurt with mixed Nuts, Banana and Berries
 - Taco with meat, lettuce, tomato
 - Water or Sports Drink
 - Oatmeal with nuts and fruit
- 1 -2 hour
 - Bagel, English Muffin
 - Rice Cakes
 - Carbohydrate Based Energy Bar
 - Banana
 - Water or Sports Drink
 - Applesauce



Recovery

Carbohydrate and protein

Chocolate Milk

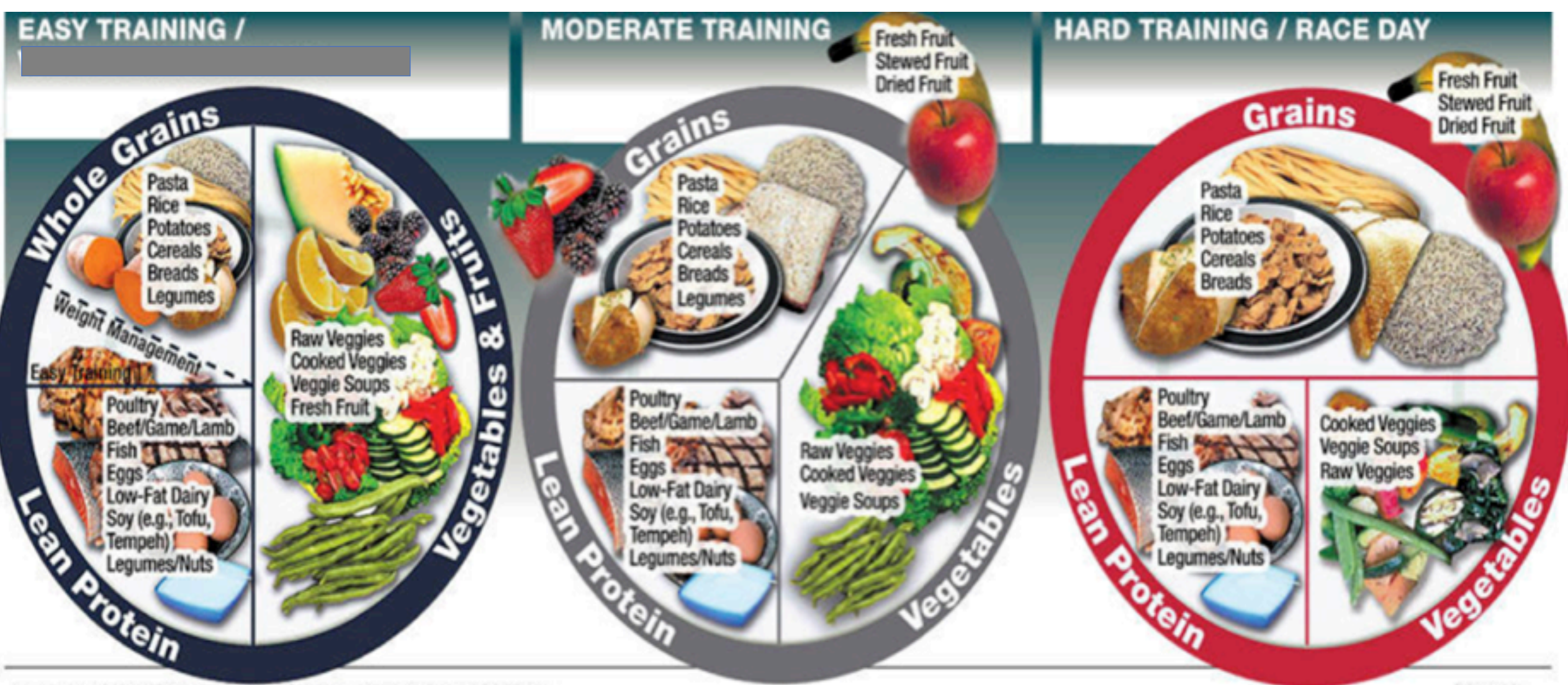
Nut butter sandwich

Energy Bar = 3:1 or 4:1

CHO:Pro (24g:8g)

**Greek Yogurt, Granola and
Banana**

Trail Mix



SOURCE: United States Olympic Committee Sport Dietitians
University of Colorado Sport Nutrition Grad Program

JOURNAL

- Use the Moderate Plate to fuel Up or Down

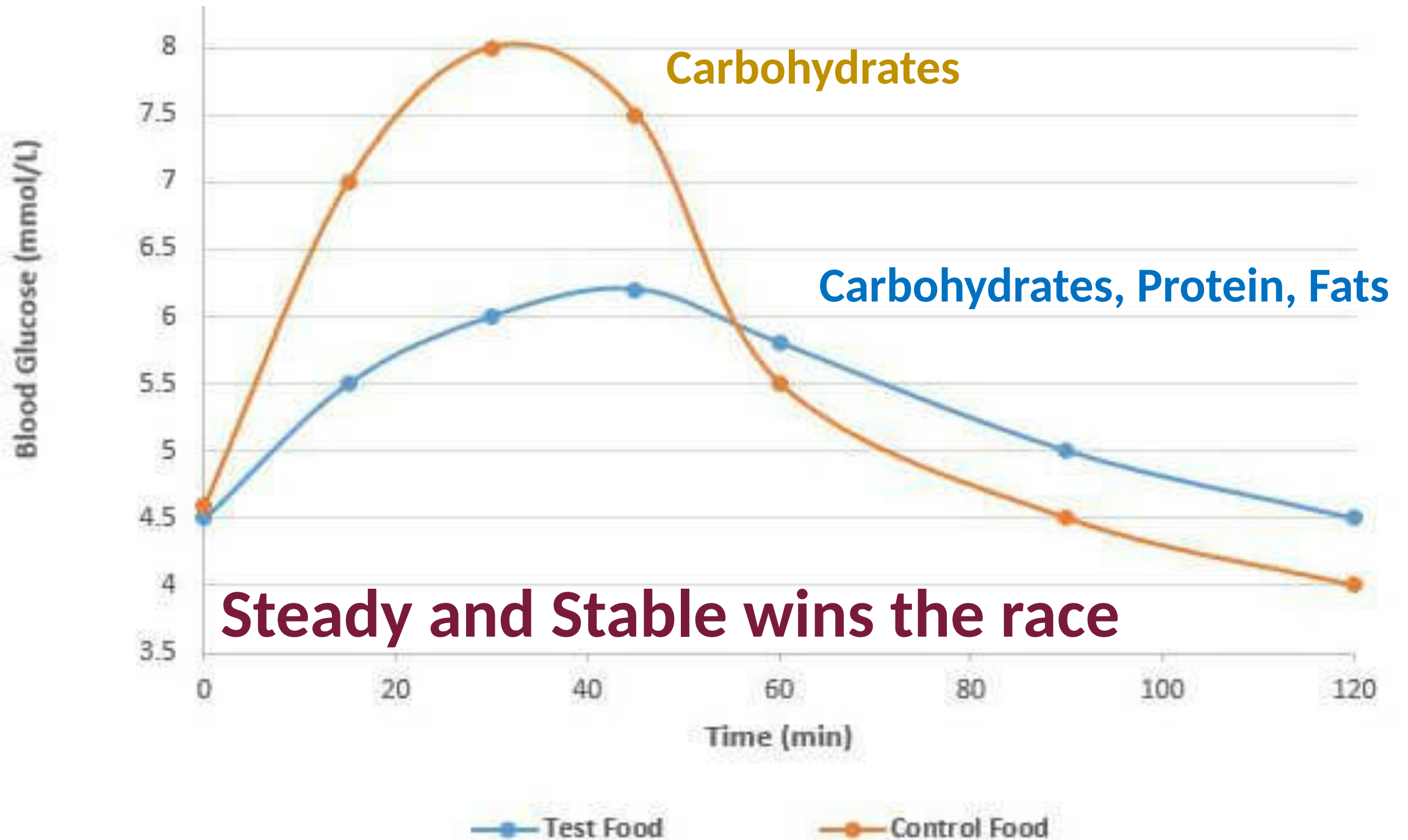
Formula for Success

Unrefined Carbohydrates + Quality Protein + Healthy Fats =

Personal Best

Stable Glucose Levels

You Choose!



Unrefined Carbohydrates +	Quality Protein +	Healthy Fats +
Whole Grain Bread	Sliced Turkey	Avocado
Quinoa	Chick Peas	Walnuts
Sweet Potato	Grilled salmon	Green salad with olive oil
Arugula	Grilled Chicken	Slivered almonds
Strawberries	Greek Yogurt	Sunflower Seeds
Spinach	White Beans	Drizzle olive oil
Banana	Almond Butter	Sprinkle or Dip with flax seed
Whole grain flat bread	Hummus	Sliced tomatoes with olive oil
Farro	Edamame	Pumpkin seeds
Brown Rice	Black beans	Slivered almonds
Asparagus	Eggs	Avocado
Whole grain pasta	Chick peas	Pesto
Tomato sauce	Lentils	Walnut oil
Blueberries	Cottage Chees	Pistachios

Bigger, Faster,
Stronger..How?

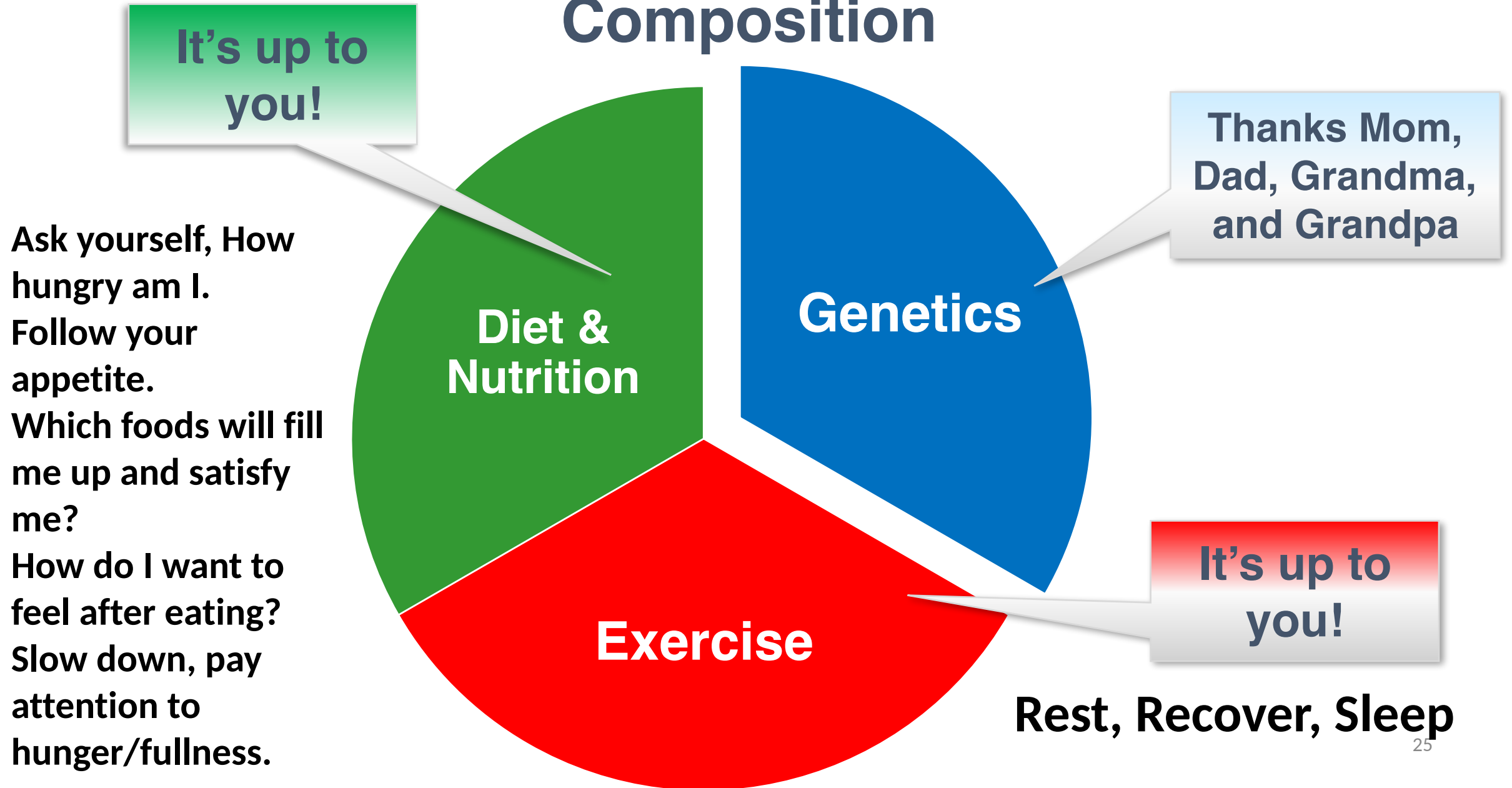
Body Composition

- **Water:**
 - 65% of our body is water.
- **Muscle and body fat:**
 - Muscle mass and body fat are most variable
- **Bone:**
 - Bone density increases with exercise.
 - ~5–6% of body weight



It is important for ***athletic success*** to build muscle and bone, maintain a healthy amount of fat, and to stay hydrated! You are growing!

Three Primary Factors that Influence Body Composition



Fuel Your Game, Nourish Your Soul



What Can You Do to Maintain or Build Muscle Mass?

- Increased muscle growth occurs with resistance training and when more calories are consumed than expended.
- Pay attention to your Appetite!
- Start your day off right by consuming breakfast, and eat every 2-3 hours throughout the day.
- Consume pre- and post-workout snacks to help repair and build muscle. Aim for 15 – 30 grams of protein post-exercise and for most of your meals and snacks.
- Vitamins and Minerals
- Post-exercise refueling, rest, including sleep



Protein Supplements

Nutrition from Food + Strength Training

Supplements are not necessary

If you must... Choose, Time and Dose Wisely

- **Whey** is a complete protein source
- **Soy, quinoa, pea, hemp, chia, and sunflower** protein are just some of the complete plant proteins. 15 - 30 grams

REMEMBER...

- **Athletes are successful with a range of body fat % and all sizes.**
- **Body fat % in athletes should be driven ONLY by measures of performance and health.**
- **Body composition results from several factors.**
 - Genetics
 - Exercise
 - Diet and nutrition
 - ✓ Eat smart
 - ✓ Fuel before, during (when possible), and after exercise
 - ✓ Food first!

