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### Fueling for Long Gravel Events

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- Registered Dietitian (RD)
- Bachelor's of Science in Dietetics from The Ohio State University
- Dietetic Internship at The Ohio State University
- Master's of Science in Human Nutrition from The Ohio State University (MS)
- Certified Specialist in Sports Dietetics (CSSD)
- Certificate of Training in Adult Weight Management
- Level 2 USACycling Coach
- Professional Bicycle racer with ATX Wolfpack p/b Jakroo

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# What Characterizes long Gravel

## **Events**?

- Early morning start
- Over 5 hours
- Mixed surface
- Heat dry or humid
- . Remote area
- Fast start with a group, settle into small groups or solo



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### **Common Long Gravel Events and Stats**

Name	Distance	Range of Time to Completion
Belgian Waffle Ride – San Diego	140 miles	7-14 hours
GARMIN UNBOUND Gravel	200 miles	10-20 hours
SBT GRVL	142 miles	7-14 hours
Rebecca's Private Idaho	102 miles	5-10 hours
Foco Fondo	107 miles	5-10 hours

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# **Energy Demands**

400 – 1000 Kj per hour

Belgian Waffle Ride, San Diego 2019





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### **Substrate Utilization**



https://somepomed.org/articulos/contents /mobipreview.htm?33/37/34390

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### **Substrate Utilization**



https://www.researchgate.net/figure/The-Effect-of-Exercise-Intensity-and-Exercise-D uration-on-Substrate-Metabolism-and-Mus cle\_fig2\_235440622

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### **Substrate Utilization**



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### **Pre-Race Nutrition**

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## Week Before the Race

- Drink 4-6 Liters fluid consistently 3-5 days leading up to race
- Incorporate carb-rich foods in snacks and meals 3-5 days leading up to race (6-10g carb/kg body weight per day)
- Consume electrolytes (salt) in fluids and foods 3-5 days leading up to race

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#### 3-4 Hours before start



	Eat/Drink	Avoid	Example
3-4 Hours Before	meal/snack: -Complex Carbs -10-15 g Protein -Some Fiber	High Fat Spicy Foods	<ul> <li>Cereal+milk+fruit</li> <li>Toast+jam+PB</li> <li>Potato+non-fat greek yogurt</li> <li>Oatmeal+fruit+nuts</li> </ul>
	Drink: -20oz fluid		<ul> <li>Cold or ice water if hot day</li> <li>Room temp. or warm water if cold day</li> </ul>

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#### Between meal and 20min before start



Drink	Avoid	Example
Fluids + electrolytes 30g carbohydrates	Too much food Too many sugars High fat, protein	<ul> <li>Drink mix</li> <li>Cold or hot water depending on temps</li> <li>Coffee, tea</li> <li>Red Bull</li> </ul>

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#### 15-20min before race start

Eat/Drink	Goal	Example
Snack: -15-30 g Carbs	Simple carbs	<ul> <li>Gel, blocks, chews, dates</li> <li>Drink mix</li> </ul>
Drink: -10-15oz	Fluid electrolytes	<ul> <li>Cold or ice water if hot day</li> <li>Room temp. or warm water if cold day</li> <li>sports drinks</li> </ul>



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# Fueling during Gravel Racing

- Energy/Calories
- Fluid
- Electrolytes
- Misc. Ergogenic Aids

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# **Energy/Calories**

#### • Per Hour:

- 200-300kcals including 30-90g carbohydrates
- Carbs during high intensity portions of race
- Some fat and protein during lower intensity portions of race

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# **Energy/Calories**

Food	Calories per serving	Carbs (g)	Fat (g)	Protein (g)
Clif bar	250	45	5	9
Clif Shot (gel)	110	22	1.5	0
Clif Bloks (1/2 sleeve)	100	24	0	0
1 medium Banana	110	28	0	1
1 bottle HEED (1 single serving packet)	100	27	0	0

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## Fluid

#### • Per Hour:

- 16-32ounces (1 small bottle 1 XL bottle)
- Carbs in fluid for all or during high intensity portions of race
- Drink small amounts often!!!!!

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## Fluid

Drink mix (per bottle)	Calories per serving	Carbs (g)	Fat (g)	Protein (g)
Tailwind (2 scoops)	200	50	0	0
Skratch (1.5 scoops)	120	31	0	0
Heed (2 scoops)	200	50	0	0
Roctane (2 scoops)	240	59	0	0

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# Electrolytes

**Per Hour** 

- At least 500-700mg Sodium
  - Drink mix
  - Pretzels
  - Potato chips
  - Tortilla chips
  - Salted nuts

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# **Other Ergogenic Aids**

- Caffeine
- Branched-Chain Amino Acids (BCAAs)
- Ginger, Peppermint



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## How to Make a Plan

1. Research what will be available at Aid Stations (food, snacks, fluid, products)

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- 2. Feedbags? Required to arrange your own support? Unsupported?
- 3. Determine an Estimated Time of Completion (be realistic)
- 4. Determine estimated time between each Aid Station

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# How to Make a Plan, example

Name: Sandra Race: Belgian Waffle Ride San Diego, 2019 Category: Elite Women Estimated Finish Time: 9 hours Food/Fuel: What is available on course by event (Science in Sport etc.), aid station locations known

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## **Individual Factors**

- 5'5", 130lbs
- Salty sweater
- Lives in the Midwest, racing in the dry heat
- Uses Skratch Exercise Hydration mix and homemade ride food for most training
- Has experienced gut rot during other long gravel races

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### **Race Factors**

- Dry and hot
- Aid Stations well stocked at this event
- Sections of single track and long climbs
- Group riding dynamics mandatory in first half of race and potentially second half

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Key: CHO=carbohydrate	PRO=protein
20oz bottle SIS Go electrolyte	GO Energy Bar
20oz bottle water	SIS Gel

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## **Tips for Gut Rot**

- Always try foods and products available on course, during training
- Take 1-2 TUMS every hour, starting 3-4 hours in
- Choose functional flavors: peppermint, ginger
- Vary type of fuel: solid, liquid, gel, chomps, whole foods, sports foods
- Consider starting with simple carb-rich foods (gels, chomps) and moving to solid food (bars, fruit, sandwiches) or visa versa

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# **Tips for Salty Sweaters**

Do you have salt on your jersey or crusted on your face during/after rides?

- Supplement with extra electrolytes during the event every hour (capsules, tablets)
- Prioritize salty foods during the race (pretzels, chips, electrolyte chomps or gels)

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# Kristen's top tips for success

• Try all products and foods available on course in training

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- Practice your race day fueling plan in training on at least one long ride

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- Practice using fuel equipment (hydration vest, bike bags, bottles with bottle cages)

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- Memorize or make a fueling cue sheet for race day
- **Practice eating/drinking** regularly in training (every few minutes)
- Organize your fuel for **easy access** during the race
- Practice using fuel equipment (hydration vest, bike bags, bottles with bottle cages)
- **Start fueling early** in the race (within the first 30 minutes)

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# Questions?

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