



PERFORMANCE NUTRITION

MEGAN LAUTZ, MS, RDN, CSCS, TSAC-F

MEGAN LAUTZ, MS, RD, CSCS, TSAC-F



Registered Dietitian

@Rescue.RD

MS Sports Nutrition

**Personal Trainer &
Strength Coach**

2017: Montgomery County
Fire & Rescue (civilian)

2021: Fairfax Fire & Rescue
(civilian)



**WHAT SETS YOU UP
TO **PERFORM**
WILL INCREASE YOUR
ENERGY DURING THE DAY**

PERFORMANCE NUTRITION



**Regular,
balanced
meals**



**Moderate-high
carbs (40-60%)**



**Properly timed
caffeine**



**Prioritize sleep
off-shift &
napping**

HYDRATION



EXERCISE

8-16 oz per hour

Moderate-high exertion

May have AC

Sweat wicking clothing



FIREGROUND

50-70 oz per 30-45 minutes

High exertion

Extreme heat

Heavy clothing that holds heat to the body (no sweat evap)

Arrive dehydrated

LOSE WATER 5X FASTER

The sugar in sports drinks is designed to sustain performance by replacing burned fuel

**Nonstop calls,
Outdoor Temp
85°F or more**



12-24 oz
sports drink
per hour

**Exercise
longer than
60-90 minutes**



24-40 oz
sports drink
per hour

**Fireground
Operations
>60minutes**



48-64 oz
sports drink
per hour

SODIUM

Helps absorb and retain fluid

Boosts blood plasma volume = less heart strain

↑ **sweat** + ↑ **calorie expenditure**
= ↑ **sodium needs**

Sports drink + salty snacks

1/3-1 salt packet

Drip Drop, Liquid IV

Per 8 oz sports drink

Carbs: 12–24 g

Sodium: 82–163 mg

Potassium: 18–46 mg



ORAL REHYDRATION SOLUTIONS

DripDrop, LiquidIV, BioSteel etc.

Pre-Hyponatremia	Well Hydrated	Minimal Dehydration	Significant Dehydration	Serious Dehydration
Overhydrated	No protocol needed	1 DripDrop prior to training (16 oz total)	1 DripDrop immediately + 1 DripDrop in 30 minutes (32 oz total)	Hold out of morning PT to allow time for rehydration
Salty snack REQUIRED before training	1 DripDrop might be beneficial (16 oz total)			1 DripDrop immediately + 1 DripDrop in 30 minutes + 1 DripDrop (48 oz total)
Pretzels Salty peanuts or trail mix				
NO water or DripDrop				
	<div style="display: flex; justify-content: space-between;"> <div style="background-color: #e6f2e6; padding: 2px;">1 HYDRATED</div> <div style="background-color: #e6f2e6; padding: 2px;">2 HYDRATED</div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="background-color: #fff9c4; padding: 2px;">3 HYDRATED</div> <div style="background-color: #fff9c4; padding: 2px;">4 DEHYDRATED</div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="background-color: #fff9c4; padding: 2px;">5 DEHYDRATED</div> <div style="background-color: #fff9c4; padding: 2px;">6 DEHYDRATED</div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="background-color: #fff9c4; padding: 2px;">7 SEVERELY DEHYDRATED</div> <div style="background-color: #fff9c4; padding: 2px;">8 SEVERELY DEHYDRATED</div> </div>

Protocol developed by Fernando Montes (LAFD)

POST FIRE GOALS

- **Goal: recover FULLY** in case of another alarm
- **Replace:**
 - **Fluid** 16-24 oz per pound lost
 - Rehydrate
 - **Protein** 20-25 g
 - Maximize muscle protein synthesis
 - **Carbs** 50-100 g
 - Restock muscle glycogen stores



POST FIRE GOALS

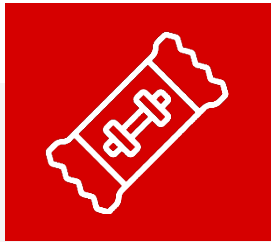
- **Large Smoothie**
 - Whey protein + 1 cup berries + 1 cup milk + ice
- **Chicken Wrap or Sandwich (or two)**
- **7 eleven**
 - Fruit, Cliff/Fig Bar, Pretzels/Hummus + protein shake

Pizza is not the best choice!

- 4 slices
- 1,140 calories, **40g fat**, 145 g carbs, 48 g protein
- **Better** = smoothie (or protein shake) + 2 slices

Pick a few!

REHAB BAG



PROTEIN

Protein bar
Tuna packets
Chicken packets
Jerky
Portable peanut butter
packets/cups



CARBS

Applesauce pouch
Fig or Clif bars
Fruit bites/gummies
Pretzels
Dried fruit
Whole grain crackers



FLUID

Protein shake
Water bottle
Sports drink
Biosteel/DripDrop

Other: Ibuprofen, Tylenol, eye drops, decon wipes

PAY ATTENTION TO CAFFEINE

< 400 mg/day

4-5, 8 oz cups coffee

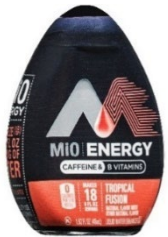
1 scoop pre-workout + 16 oz
coffee

1-2 energy drinks
(NOT RECOMMENDED)

More is NOT better

Stop at 3-4pm (1600)

**Avoid or reduce to
< 200 mg if high blood
pressure or acid reflux**



60 mg
MIO Energy (1/2 tsp)
1,080 mg per bottle!



40-75 mg
Brewed Tea
(8 oz)



70-140 mg
Black Coffee
(8 oz)



90 mg
Mountain Dew
(20oz)



160 mg
Monster (16oz)



300 mg
Preworkout

NOT RECOMMENDED

CUTTING BACK ON CAFFEINE

Cold turkey NOT recommended**

Mood disturbances, drowsiness, nausea, headache, flu-like symptoms (2-9 days)

Gradually taper back

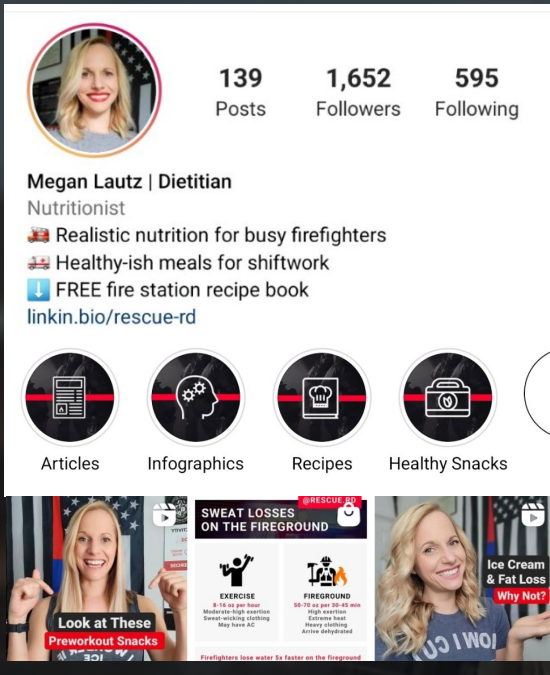
Swap for a lower-caff, half-caff, or no-caff beverage

Cut back after lunch first to improve sleep

Is it best for you to cut back off shift or on?

Work with a dietitian and/or therapist

**unless medically necessary



Megan Lautz | Dietitian
Nutritionist

- 👤 Realistic nutrition for busy firefighters
- 🍴 Healthy-ish meals for shiftwork
- 📖 FREE fire station recipe book

linkin.bio/rescue-rd

Articles Infographics Recipes Healthy Snacks

Look at These Preworkout Snacks

SWEAT LOSSES ON THE FIREGROUND

EXERCISE	FIREGROUND
8-16 oz post hour	16-24 oz post 30-45 min
Hydration high throughout	High hydration
Sweat-soaked clothing	Extreme heat
May have AC	Heavy clothing
	Air not dehydrated

Firefighters lose water 5x faster on the fireground

Ice Cream & Fat Loss Why Not?



RESCUE RD

FIREHOUSE FRESH

HEALTHIER RECIPES DESIGNED TO FUEL HUNGRY FIREFIGHTERS

MEGAN LAUTZ, MS, RDN, TSAC-F
& UNIVERSITY OF MARYLAND DIETETIC INTERNS

MEGAN LAUTZ, MS, RD, CSCS, TSAC-F

MeganLautz@gmail.com

@Rescue.RD

RescueRD.com

Facebook & Instagram

← ↑ **FREE station dinner recipe book!**