



Maximizing EIB Performance: Event Fueling and Rations

Properly fueling with adequate carbohydrate and protein is paramount to preparing for, sustaining, and recovering from physical activity.

Carbohydrates

Primary source of fuel during physical activity
Important for pre-, intra-, and post-workout fueling

- Prime for activity with 30-60g ~1hr prior to activity
- For activity lasting >90 min, aim to consume 30-60g/hr to maintain energy levels
- Re-fuel after activity with 4:1 ratio carbohydrate to protein (i.e. 100g carb:25g protein) to replenish depleted carbohydrate stores

Sources include: Bread, pasta, rice, fruit, fruit juices, beans, potatoes and vegetables

Protein

Necessary to repair muscle proteins that are broken down during physical activity
Most important for post-workout recovery.
Aim to consume between 10-20g of protein at each snack, and between 25-30g at all meals.
Eating protein every 3 hours throughout the day will improve muscle recovery.

Sources include: Lean meat, fish, eggs, beans, soy, cottage cheese and Greek yogurt

Including a carbohydrate source with your post-workout protein source can increase muscle recovery and better prime you to take on an additional workout in the next 24hours compared to post-workout protein alone

Tactical Nutrition

During field training, your MRE becomes your primary source of fuel. MREs can be used tactfully to prepare for, sustain, and recover from training. See the below charts for information on MREs, and tips for using them in a field setting.

MRE x 1	Daily Needs
1,300-1,400 Calories	3,500 Calories
30-55 g Protein	120 g Protein
140-170 g Carbohydrates	440 g Carbohydrates
55-60 g Fat	130 g Fat
1,400-2,000 mg Sodium	3,000-5,000 mg Sodium

Component	Use during training
Entrée: Main protein source	Recovery (after exhausting activity)
Crackers, tortillas, side breads, fruits: Great source of carbohydrates	60 minutes before activity or during ruck, in between activity
Snack brownie, jelly or sugar snacks: Energy to keep you moving	During long ruck or immediately after activity
Snack nuts: Great afternoon snack	During land navigation or foot march for sustained fuel
Beverage coffee, tea, cappuccino: Sources of caffeine	Before or during a longer activity; plan ahead and consume 45 min before need
Beverage base sugar free: Keep yourself hydrated	Add to canteen, <u>mix ½ salt packet with it</u> and use during ruck
Cheese spread or peanut butter: Protein source in between meals	Add to tortilla, have for a pre-event meal



Maximizing EIB Performance: Hydration and Caffeine

Performance, both mental and physical, can be hindered when dehydrated by as little as 2%. Being dehydrated by 5% can result in 30% reduction in work capacity. Side effects of dehydration include

- Impaired mental functioning
- Decreased performance
- Deterioration of motor skills
- Heat Intolerance

Consider	Aim For
Frequency of urination	Every 2-3 hours
Intensity of urination	Steady, solid flow
Color of urine	Pale yellow, similar to lemonade

URINE COLOR CHART



Tips for getting and staying hydrated

- Aim to drink half your body weight in ounces. For example, a 180lb person should aim to drink 90oz of water each day.
- Don't rely on thirst. Feeling thirsty indicates you are already dehydrated and drinking only to thirst could keep you 25-50% dehydrated.
- Aim to drink ¼-½ of your canteen every hour, depending on environmental conditions. Choose cool/cold beverages to encourage drinking.
- Following training, aim to rehydrate with 16oz, ½ of a canteen, for every pound of body weight lost.
- Include electrolytes and carbohydrates for activity >90min. Salt food in your MRE and drink MRE electrolyte beverage powder.

Caffeine

Caffeine can enhance physical and mental performance but too much can have undesirable side effects, such as jitteriness which can decrease fine motor skills and worsen your shot group.

How much? 0.3 grams per kilogram of body weight (~200mg for most Soldiers) has been shown to be effective. One study found 100mg tightened Soldier's shot groups and 200mg improved it even further, but 300mg was no better than baseline.

How often? Caffeine has half-life of 6 hours. Meaning 200mg of caffeine at 0600 will be about 100mg by 1200. Take another 100mg at 1200 to top off until 1800. Do not consume more than 600mg/day and limit caffeine after 1800 to maximize sleep quality.