



# Come Back Stronger Webinar Series

*September 1, 2020*





# American Dairy Association North East



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**REFUEL**  
**with chocolate**  
**MILK**

# Sports Nutrition Experts

## 2020 Sports Nutrition Advisory Panel






# ADANE Free Resources

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# Performance Fuel for Your Dorm Room

By: Allison Kreimeier, MS, RD, CSSD




**Portable & Non-Perishable Foods:**

- Jerky Trail Mix (store-bought or made with dried meats and dried fruits, nuts and seeds)
- Popcorn
- Pretzels
- Whole Grain Crackers
- Nuts/Nut Butters
- Fresh Fruit/Canned Fruit/ Dried Fruit
- Canned or Pouched Tuna/ Chicken/Salmon
- Whole Grain Bread/ Bagels/Tortillas
- Granola/Granola Bars




**Foods for Your Fridge:**

- Uncured Deli Meat
- Greek Yogurt Cups
- Yogurt-based Drinks
- Hard Cheeses
- Cottage Cheese



*A college student's lifestyle is extremely busy. And when you're a student, almost anything can get overwhelming fast. In just one day, a student's schedule can go from classes, tutoring, and homework to training, recovery and film sessions. And, between all of that, comes the importance of eating for optimal performance.*

*Most athletes benefit from eating 5-6 times per day, and that's hard to do if you only go to the school cafeteria or restaurants alone. The dining hall can't likely available 24/7, so you will need to keep your own food on-hand to maintain the energy required for your sport. You also need protein to maintain your muscle mass. That's why stocking your dorm room with the right foods, fluids and snacks is key to success. Use this guide to help you find food shops, so you're ready to fuel properly after training (or anytime hunger hits).*




# Can the **KETO DIET** Positively Impact Your Physique, Physiology and Performance?

By: Leslie Bonci, MPH, RD, CSSD, LDN

## 1. PHYSIOLOGY

### COMPONENTS OF A KETO DIET

The goal of the ketogenic diet is to put your body into a state of ketosis where the muscle can use fat as the primary fuel source for exercise. To do this, the fat content of the diet is high, protein content is moderate (0.5-0.9 grams of protein per pound body



*As a sports dietitian, I work daily with professional athletes and active individuals looking for fueling strategies to improve performance, body composition, and health. One popular and enticing eating plan is the ketogenic diet. The keto diet has taken the internet by storm with highly influential followers. Some athletes report that following a keto diet has dramatically improved their performance. If keto is something you're considering, make sure it is a good fit before making your decision.*

*When considering if it is right for you, I'm talking about more than just the foods you have to eat or not eat. It is important to consider how it could impact your body physiology, your physique, and your sports performance. Here we will focus on how the keto diet may help, or hurt, people who are active and exercise regularly.*

# THEY'RE CALLED ESSENTIAL FOR A REASON.

Milk's nine essential nutrients can help  
kids and teens grow healthy and strong.

**Potassium** as one small banana

**Protein** as 1 1/2 medium eggs

**Riboflavin** as 1/2 cup of whole almonds

**Niacin** as 20 cherry tomatoes

**Calcium** as 10 cups of raw spinach

**Phosphorus** as 1 cup of canned kidney beans

**Vitamin B-12** as 4 ounces of cooked turkey

**Vitamin D** as 1/2 ounce of cooked salmon

**Vitamin A** as 1/2 cup of broccoli

AN 8-OUNCE SERVING OF MILK, FLAVORED OR NOT, GIVES KIDS AS MUCH.

## THE 9 ESSENTIAL NUTRIENTS

milk life | **MilkPEP**  
an American Dairy Program

AMERICAN DAIRY ASSOCIATION

©2014 National Nutrient Database for Standard Reference, Release 27

# Three Servings of Milk Deliver A Unique Nutrient Package

The Dietary Guidelines for Americans recommends three servings of dairy products each day.\*

Milk's essential nutrients can be difficult to replace in a healthy dietary pattern. These 8-ounce cups provide as much of each nutrient as:

<b>CALCIUM</b>  3 large (20 g) hard-boiled eggs  <b>CALCIUM</b>  4 cups (1 L) cups of raw kale	<b>ANTIBACTERIAL ACTIVITY</b>  3 capsules  <b>ANTIOXIDANT A</b>  1/2 cup (125 mL) of whole red raspberries
<b>ANTIOXIDANT B</b>  1/2 cup (125 mL) of whole red raspberries	<b>ANTIOXIDANT B</b>  1/2 cup (125 mL) of whole red raspberries
<b>ANTIOXIDANT C</b>  1/2 cup (125 mL) of whole red raspberries	<b>ANTIOXIDANT C</b>  1/2 cup (125 mL) of whole red raspberries
<b>ANTIOXIDANT D</b>  1/2 cup (125 mL) of whole red raspberries	<b>ANTIOXIDANT D</b>  1/2 cup (125 mL) of whole red raspberries

\*Dietary Guidelines for Americans, 2010. [www.dietaryguidelines.gov](http://www.dietaryguidelines.gov)

AMERICAN DAIRY ASSOCIATION

**WHAT'S IN YOUR GLASS OF MILK?**

**AFFORDABLE + NUTRITIOUS + ACCESSIBLE**

**AFFORDABLE**

Only **\$0.26** per serving!  
Get the recommended 3 servings of dairy a day for **under \$1.00.**

**NUTRITIOUS**

Milk contains essential nutrients, like high-quality protein, calcium, vitamin D & more.

**ACCESSIBLE**

You can buy milk at local grocery or convenience stores, all year long!

 **AMERICAN DAIRY ASSOCIATION**  
www.AmericanDairy.org

\*Data Source: National Dairy Council (NDC)

AmericanDairy.com

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# Safe Return to Training & Sports in High School Athletes

*Matthew Darnell, PhD, RD, CSSD, SCCC*





# Objectives

By the end of the session, participants will be able to:

- Understand risks of training following periods of inactivity.
- Implement scaled and periodized training approaches following periods of inactivity.
- Incorporate preventative training exercises into practices or warm-ups.



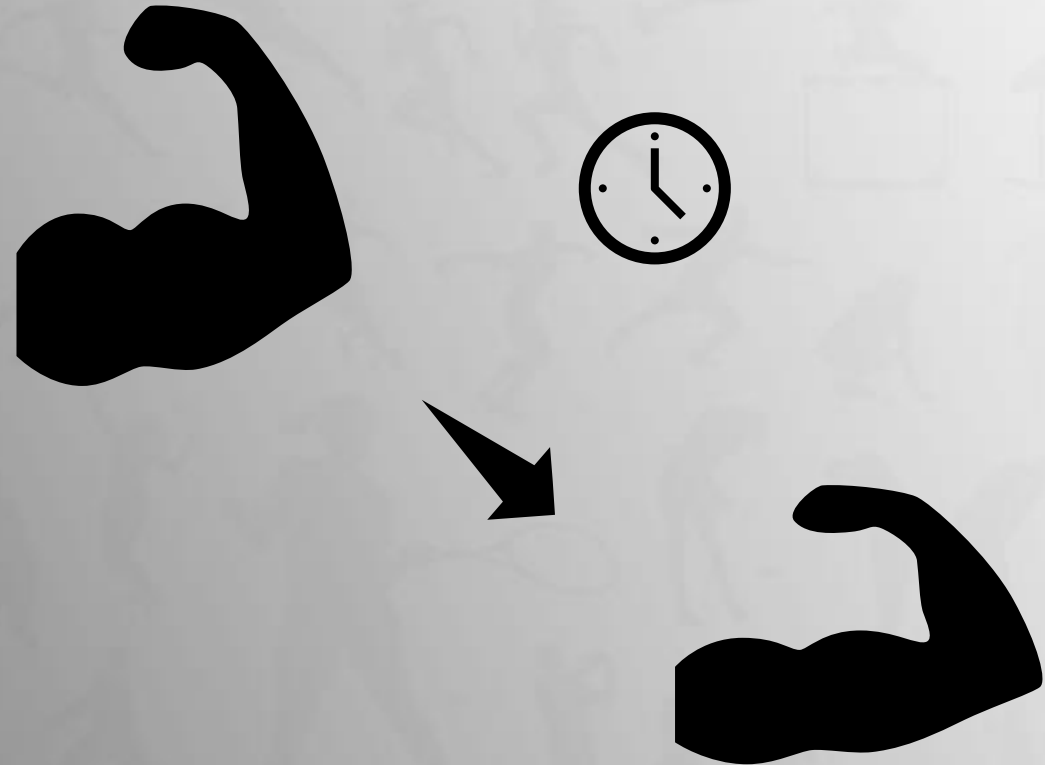




# How long does it take to lose fitness?

- Cardiovascular fitness: 7-14 days
  - ↓ blood and plasma volume
  - Blood enzymes
  - ↑ Resting heart rate
- Strength: 2-3 weeks
  - ↓ Muscle mass/size
- Structural Strength: 2-8 weeks
  - Bone
  - Tendons/ligaments

\*Depends on training history and fitness levels\*





# Fitness comes back quickly

Average Re-instatement time

2-4

weeks

VS

Average Return time Post Injury

6-8

weeks

- Fitness levels restore quickly in trained athletes
- Gradual re-instatement of activity is key



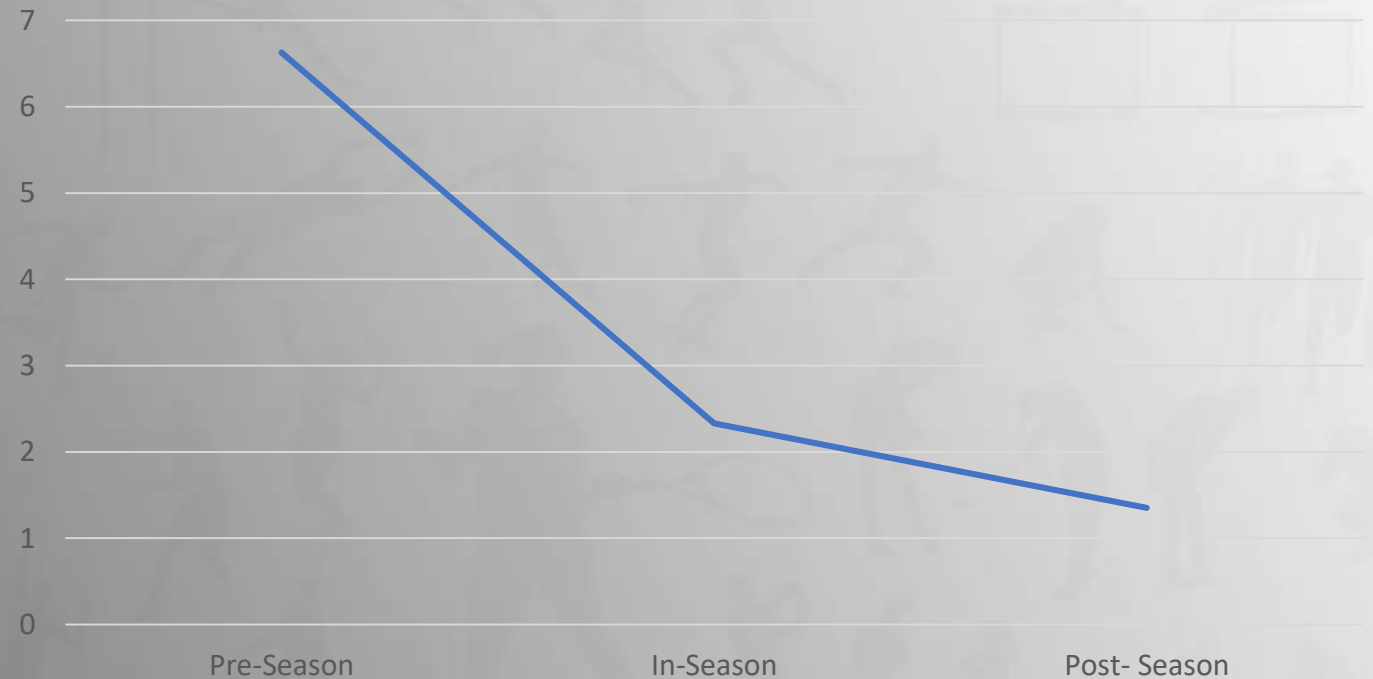


# Training following inactivity

## Risks:

- Exertional heat stress
- Sudden cardiac death
- Exertional Rhabdomyolysis
- Musculoskeletal Injuries
- Overuse injuries

Practice Injury Rates by Season





# Inactivity and Transition Periods

- Inactivity  $\geq$  2 weeks
- Transition Periods:
  - Student athletes beginning under a new head sport coach
  - Transfer or freshman athletes or athletes starting with a new strength coach
  - Students returning from injury/rehabilitation program







# Guidelines for Safe Return to Training

“Slow is smooth, smooth is fast”

Most injuries occur because coaches do:

too much

too fast

too soon





# Guidelines for Safe Return to Training

To ensure training is developmentally appropriate and not excessive coordinate and communicate between:

- Sports Coach
- Athletic Trainer
- Strength Coach





# Guidelines for Safe Return to Training

Follow the 50/30/20/10 Rule

Week	Reduction of normal exercise load/plan	Work to Rest Ratio
1	50%	1:4 or >
2	30%	1:3 or >
3	20%	--
4	10%	--





# Guidelines for Safe Return to Training

## Follow the 50/30/20/10 Rule

Multi-sport athletes:

- Consider participating in only one sport practice or conditioning session

***OR***

- At least 50% reduction of workload in each of the sport practices or conditioning sessions







# Guidelines for Safe Return to Training

Weight Training  
Follow the F.I.T Rule

Frequency = sessions/muscle group/week

Intensity relative volume (IRV) = Sets x Reps x %1RM (decimal)

Time = Rest interval





# Guidelines for Safe Return to Training

Weight Training  
Follow the F.I.T Rule

F.I.T	Week 1	Week 2
Frequency (sessions/week)	3	4
Intensity (IVR)	11-30	11-30
Time (W:R)	1:4	1:3





## NSCA's Checklist



### TRAINING SAFETY: RISK FACTORS FOLLOWING PERIODS OF INACTIVITY

- ☐ In the first 2 – 4 weeks of training, apply CSCCa-NSCA Joint Consensus, and NCAA Sport Science Institute Guidelines on training volumes, intensity, and work-to-rest ratios as upper limits to protect against catastrophic injury
- ☐ Avoid high volume submaximal exercises to fatigue, or performed within in a limited time frame
- ☐ Emphasize a 10 – 20 minute daily dynamic warm-up for reestablishing sport-related movement patterns
- ☐ Consider that prolonged inactivity increases the likelihood of delayed onset muscle soreness (DOMS)
- ☐ Communicate regularly with the medical and coaching staffs about at-risk athletes, including those with cardiac abnormalities, sickle cell trait, history of exertional or nonexertional collapse, asthma, and diabetes
- ☐ Consider the use of pre-screening, readiness surveys and/or workload monitoring for tracking athlete status
- ☐ Plan and adjust workouts to match environmental factors, especially in cases of high heat and humidity
- ☐ Do not perform physically exhausting drills for the purpose of developing "mental toughness"



# Injury Prevention Training

Multi-component (min of 3):

- Strength, balance, agility, flexibility, plyometrics

Frequency

- 2-3 times/week (pre and in-season)

Duration

- 10-20 mins







# Injury Prevention Training

Prevent injury and Enhance Performance Program (PEP)

- Improve strength and balance
- Reduce incidence of knee injuries





# Injury Prevention Training PEP

Warm-up (50 meters each)

- Jog sideline to sideline
- Shuttle run (side to side)
- Backward running





# Injury Prevention Training PEP

Warm-up (50 yards each):

- Jog (sideline to sideline)
- Shuttle run (side to side)
- Backward running





# Injury Prevention Training PEP

Stretching (30 sec x 2 reps each):

- Calf stretch
- Quadricep stretch
- Figure 4 hamstring stretch
- Inner thigh stretch
- Hip flexor stretch







# Injury Prevention Training PEP

## Strengthening:

- Walking lunges (20 yards x 2 sets)
- Nordic Hamstring (3 sets x 10 reps)
- Single leg toe-raises (30 reps/side)





# Injury Prevention Training PEP

Plyometrics (20 reps each):

- Lateral hops over 2-6 in. cone
- Forward/Backward hops over 2-6 in. cone
- Single leg hops over 2-6 in. cone
- Vertical jumps
- Scissor jumps





# Injury Prevention Training PEP

## Agility:

- Shuttle run with forward/backward running (40 yards)
- Diagonal runs (40 yards)
- Bounding runs (45-50 yards)





# Summary

- Pre-season and inactivity/detraining ↑ injury risk
- Start slow and build
  - 50/30/20/10 and F.I.T rule
- Injury prevention training includes strength, balance, plyometrics, agility, and flexibility and can be implemented in warm-ups/practices.





# Resources/References

- NSCA COVID-19 Return to Training
- CSCCA and NSCA Joint Consensus Guidelines for Transition Periods: Safe Return to Training following Inactivity
- ACSM Return to Sports and Exercise during the COVID-19 Pandemic: Guidance for High School and Collegiate Athletic Programs



# Questions





# Upcoming Webinars

Registration information will be shared again in the post-webinar eblast



**HEIDI SKOLNIK, MS, CDN, FACSM**

*Owner, Nutrition Conditioning, LLC; Nutritionist  
Women's Sports Medicine Center at Hospital for Special Surgery*

*Getting Real About High School  
Athletes' Nutrition*

**TUES | SEPT 8 | 3:30 pm**

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**MOLLY MORGAN, RD, CDN, CSSD**

*Owner, Creative Nutrition Solutions;  
Binghamton University Men's Basketball Sports Dietitian*

*Hydration Tactics to  
Fuel High School Athletes*

**TUES | SEPT 15 | 3:30 pm**

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# Reminders

- Post-webinar polling questions
  - Raffle Prize Winners
- 
- Post Webinar E-Blast Coming Soon!
- Includes:
- ✓Presentation Slides
  - ✓On-Demand Webinar Link
  - ✓Resources
  - ✓Registration info for upcoming webinars

Thank you!

