

The Importance of Recovery and Regeneration in Soccer

- Introduction
- Mental & Physical Recovery
- Research
- Video case study
- Conclusions
- Q&A



Why are Recovery & Regeneration Important?

- Recovering faster means players can train harder
- Maintaining peak performance, healthy living, & staying injury free
- Intensity of multi-game weekends
- Not getting enough rest can have serious consequences in youth soccer when players are still growing and developing



Mental Recovery

- Focus on the next game
 - Don't dwell on mistakes/ Don't expect every game to be the same
 - Look at what worked/didn't work from previous games
 - Positivity
 - Mental Relaxation



Physical Recovery

- Icing
- Muscle Massage
- Rest
- Nutrition
 - Chocolate Milk



An Ideal Recovery Session

- Performing Light Physical Activities
 - Stretching
 - Jogging
 - Low-intensity small sided games
- Recover Physically = Rest Mentally
- 60-Minute Max Session
 - Exceeding may diminish regeneration



An Ideal Recovery Session

- Stays at about 65% of the Maximum Heart Rate
- Low Physical Contact
- Nutrition
 - Chocolate Milk



What Players are Drinking now

- Sports drinks
 - What's in sports drinks
 - Many contain dye/color additive
 - Most do not contain protein
 - Some have significant amounts of high fructose corn syrup
 - Many have high amounts of sodium
 - Contains no vitamins or calcium
 - Many have preservatives
 - What should we give them?



Research Overview

- Southern Connecticut State University
 - Background
 - This study examined effects of fat-free chocolate milk consumption on kinetic and cellular markers of protein turnover, muscle glycogen, and performance during recovery from endurance exercise.
 - Methods
 - Male runners participated in two trials separated by 1 week and consumed either MILK or a isocaloric carbohydrate (CHO) control beverage after a 45-min run at 65%. Post exercise muscle protein fractional synthetic rate and whole-body protein turnover were determined during 3 hours of recovery using muscle biopsies.
 - Conclusion
 - The effects of consumption of chocolate milk after endurance exercise and performance measures suggest unique benefits of milk compared with a CHO-only beverage.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/21904247>

Research Overview

- University of Texas
 - Background
 - This study examined 32 healthy, untrained male and female cyclists who completed a 4 ½ week cycling regimen and were placed into one of three randomized categories. Chocolate Milk, Isocaloric Carbohydrate Drink, or Calorie-Free Placebo.
 - Methods
 - Cycling for 1 hour, 5 days a week for 4 ½ weeks at 75%-80% of maximal oxygen consumption. Participants drank their assigned beverage immediately and 1-hour after each session.
 - Conclusion
 - Improvements in body composition were greater in the chocolate milk group. They had 3 pounds more whole body lean muscle (vs. fat) compared to the carbohydrate drink group and a 2 pound higher differential in trunk fat.

Source:

http://www.choosechocolatemilk.com/sites/default/files/acsm_study_details.pdf

Research Overview

- School of Psychology and Sports Sciences, Northumbria University
 - Background
 - Nine trained male cyclists performed 3 experimental trials, in a randomized counter-balanced order, consisting of a glycogen-depleting trial, a 4-hour recovery period, and a cycle to exhaustion at 70% power at maximal oxygen uptake.
 - Methods
 - At 0 and 2 hours into the recovery period, participants consumed chocolate milk (CM), a carbohydrate replacement drink (CR), or a fluid replacement drink (FR)
 - Conclusion
 - Participants cycled 51% and 43% longer after ingesting CM (32 ± 11 min) than after ingesting CR (21 ± 8 min) or FR (23 ± 8 min).
 - Chocolate Milk is an effective recovery aid after prolonged endurance exercise for subsequent exercise at low-moderate intensities.

Source: <http://www.nrcresearchpress.com/doi/abs/10.1139/H08-137#.Urikv-Kf-Vo>



Case Study with Premier BU17 Team

- What we did
 - Nestle provided the LAPFC BU17 Premier team with Nesquik chocolate milk for 3 weeks to replace their normal post-game sports drink
 - The boys had little knowledge of the recovery benefits of chocolate milk prior to the case study
 - Interviewed both the players and coaches post-case study to get their thoughts on chocolate milk as a recovery drink



Case Study with Premier BU17 Team

- SHOW VIDEO

http://www.youtube.com/watch?v=9hKIGJuP_bo&feature=youtu.be

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Case Study Summary



- Players felt less soreness after practices
- Players felt able to regenerate faster
- Players LOVED Nesquik
- Many players knew about the importance of protein and carbs after practice, but didn't realize low fat chocolate milk contained both



What to drink during Recovery

- Nesquik Low-fat chocolate milk
 - 3:1 ratio of carbohydrates to protein
 - Has more vitamins (A,D,C), proteins, carbs, sodium, potassium, & calcium than leading sports drinks, without the dyes & artificial sweeteners
 - Tastes good and players love it
 - Noticeable differences in the standard of training/games when using Nesquik as a post-practice beverage
 - Research suggests that the optimal time to drink chocolate milk is within 30 minutes after activity

COMPARING RECOVERY OPTIONS

		NESQUIK® CONTAINS			
		the ideal ratio of carbohydrates-to-protein that may help refuel and restore exhausted muscles		Leading Hydrating Sports Drink (8 fl. oz.)*	Leading Juice Drink for Kids (8 fl. oz.)**
IDEAL RATIO IS 3:1	Carbohydrates	25g		14g	23g
	Protein	8g		0g	0g
% OF DAILY VALUE***					
ELECTROLYTES	Sodium	7%		5%	1%
	Potassium	12%		1%	0%
	Calcium	40%		0%	0%
VITAMINS	Vitamin D	25%		0%	0%
	Vitamin A	10%		0%	0%
Artificial Sweeteners		No		No	No
Dye/Color Additives		No		Yes	No
High Fructose Corn Syrup		No		No	Yes

*Standard serving size is 12 fl. oz.
 **Standard serving size is 6 fl. oz. (177mL)
 ***Daily Value based on recommended dietary allowance.

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Q&A Session

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