

CANADA'S PREMIER SOCCER MAGAZINE | WWW.INSIDESOCCER.CA

ISSUE #96 | MAY/JUNE 2012 | \$5.95

INSIDESOCCER

Informing and Entertaining the
Canadian Soccer Community Since 1992

Magazine

MICHAEL THORNTON:
TALENTED RENAISSANCE
BOY PROMPTS EUROPEAN
FAMILY DECISIONS

**PARENTS'
GUIDE TO
SOCCER**

IN THIS ISSUE:

BRYCE ALDERSON:
SOCCER *OR* SCHOOL...
WHAT COMES FIRST?

**AN EXCLUSIVE INTERVIEW
WITH THOMAS RONGEN,
TFC ACADEMY DIRECTOR**





PARENTS' GUIDE TO CAFFEINE USE FOR SOCCER PLAYERS

BY RICHARD BUCCIARELLI

Thousands of dietary supplements exist for 'over-the-counter' purchase today, many of which propose benefits to performance for athletes.

Coaches, parents, as well as athletes themselves, seem to be bombarded today by advertising companies selling products which they claim will reduce injuries, enhance recovery, and will make players perform at a higher level. Parents of young athletes should be especially wary of dietary supplements that they may be giving to their children. Among the many risks of taking dietary supplements are:

- possible absence of any active ingredient
- possible presence of an illegal / banned substance
- possible impurity / presence of contaminants in the product / packaging
- lack of long-term study / lack of knowledge of possible side-effects

To recognize supplements that are potentially effective and relevant to

soccer, three specific criteria must be met:

1. Does the supplement work? (it must affect some physical, physiological, psychological, or other health factor that has an influence on performance in soccer)
2. Is the supplement safe? (it must not cause any adverse health effects)
3. Is the supplement banned? (it must not contain any substance which is named in a banned substance list, or which may result in a positive doping test)

The purpose of this article is to focus on and explain the use and benefits of a commonly used dietary supplement that has been scientifically proven to achieve some sort of performance enhancing effect in athletic populations: Caffeine.

DOES IT WORK?

Caffeine is a stimulant, popular both among athletes and the general population, and contained in coffee, tea, chocolate, as well as several different kinds of soft drinks and colas. In a thorough review of scientific literature about caffeine, Hespel et. Al. (2006) concluded that caffeine most likely benefits performance by decreasing the perception of fatigue, enhancing central drive, and/or improving muscle fibre recruitment. Studies on caffeine in endurance athletes (cyclists) showed that both moderate caffeine doses (between 5 and 13 mg per kg of body weight – Graham & Spriet, 1991, Pasman et. Al., 1995) and lower doses (between 2-6 mg per kg of body weight – Graham & Spriet, 1995, Kovacs et. Al., 1998) caused a substantial improvement in endurance exercise capacity. More recently, a study by Cox et. Al. (2008) showed that doses as low as 90mg of caffeine during a 2 hour exercise test could result in significant performance improvements as compared to subsequent tests.

While research into the effects of caffeine on soccer players is minimal, the evidence shown above should be directly applicable to the sport of soccer, which, like endurance sports such as cycling, also places a heavy demand on the aerobic system in order to supply energy for muscular work. Caffeine is especially useful for soccer players both because it is rapidly absorbed (peak plasma levels are typically reached within 1 hour of ingestion) and because the performance enhancing effect on endurance (through reduced perception of fatigue, enhanced central drive, and increased muscle fibre recruitment) is maintained for at least 3 hours after ingestion (Graham et. Al., 1998). This means that caffeine could be ingested during the pre-game warm-up and still have a positive performance enhancing effect even if the game goes into extra time (total of 2-2.5 hours of physical activity).

IS IT SAFE?

Habitual caffeine users, including athletes, will commonly consume doses of caffeine similar to the ones listed in the studies above on a daily basis, and such doses have never been shown to cause any adverse or negative health effects. Thus, low doses of caffeine can be considered safe for athletes.

IS IT BANNED?

It must be noted that caffeine is presently listed as a banned substance by the International Olympic Committee (IOC), and the NCAA / CIS (American and Canadian University athletics associations) but not the World Anti-Doping Agency (WADA). The quantity at which caffeine is considered banned, however, is 15 mcg (micrograms) per mL (milliliters) in a urine sample. In layman's terms, this concentration would be the equivalent of a dose of 8 or more mg per kg of body weight (or the equivalent of 10-15 cups of coffee). This means that the "low" doses used in the studies mentioned in this article (which clearly have a positive effect on endurance performance and range from between 1-6 mg per kg of body weight) would not be considered banned by any sport or athletic association and will not lead to a positive drug test.

The chart below lists safe, effective, and rational caffeine use guidelines for athletes. All coaches, parents, and athletes must consult with a physician before taking any dietary supplement. Doses of more than 6 mg per kg of body weight should NOT be consumed, as they may lead to a positive drug test.

Richard Bucciarelli is the President of Soccer Fitness Inc., and Fitness Coach for the Canadian National Women's U17 team, which will be travelling to Guatemala in May 2012 for the CONCACAF qualification tournament for the FIFA U17 Women's World Cup. For more information about Richard and Soccer Fitness, please visit www.soccerfitness.ca.

TYPE OF USER	DOSE 2-4 WEEKS PRIOR TO COMPETITION	DOSE 30-60 MINUTES PRIOR TO COMPETITION
NON-HABITUAL USER (0-4 CUPS OF COFFEE/ TEA PER WEEK)	1 cup coffee/tea every other day (3-4 cups per week)	Minimum of 75mg, maximum of 4mg per kg of body weight
HABITUAL USER (7-14 CUPS OF COFFEE/ TEA PER WEEK)	1 cup coffee/tea per day 7-5 days prior; no coffee/tea 4-1 days prior	2-6 mg per kg of body weight

SOCCER FITNESS

Science-Based, Soccer-Specific Training Including:

- ✦ High-Speed Treadmill Training
- ✦ Plyometric Training
- ✦ Soccer-Specific Running & Kicking Cords
- ✦ Soccer-Specific Fitness Assessments

**NOW IS YOUR CHANCE TO TRAIN LIKE THE PROS—
BOOK YOUR FREE TRIAL SESSION TODAY!**



Louis Brasil
Midfielder, Flamengo FC,
Brazilian Premier League
2009-Present



Joseph Di Chiara
Midfielder, Krylia Sovetov,
Russian Premier League
2010-Present
Canadian Men's National Team,
2011-Present



Gil Hong
Midfielder, Győr Eto FC,
Hungarian Premier League
2010-Present



Lucas Gestaldi
Midfielder, Valletta FC,
Maltese Premier League,
2011-Present



Gaetano Gestaldi
Defender, Valletta FC,
Maltese Premier League,
2010-Present

Contact Information
Soccer Fitness Training Centre
Trio Sportsplex, 2nd Floor
601 Cityview Boulevard
Vaughan, ON, L4H 0T1
Office: (905) 417-4110
Cell: (647) 829-4360
Email: info@soccerfitness.ca



Richard Bucciarelli,
President
BKINE, CSEP-CEP,
CSCS, CK
OSA "B" License
USSF "B" License

Find Out More at www.soccerfitness.ca