

BOILER PUMP

THE OFFICIAL NEWSLETTER OF PURDUE SPORTS PERFORMANCE

Issue #16: May 2015

**Inside
the
Huddle:**
***Diving
and
Cross Country***



**Sports
Performance
News:**
***Staff
Changes***

Mental Conditioning:
Mental "Toughness"

Boiler Fuel News:
Evaluating Supplements

Sports Performance News

The Challenge 5K

Our staff had a great time at The Challenge 5K, raising money to benefit the Purdue Center for Cancer Research. While some of us were busy stocking the refueling stations with plenty of chocolate milk, and handing out water, others were able to walk and enjoy some time with the student-athletes. Great experience for all!



In Other News ...

Assistant Director Joshua Bonhotal, performance coach for men's basketball and diving, will present at the National Basketball Strength and Conditioning Association Conference on May 16 on the topic of "Draft Ready: Developing Players for the Next Level."

Staff Changes

While we are sad to see them go, two of our staff members are off to continue their future careers!



Spencer Dawson, an associate working with softball, women's basketball, volleyball, and track & field is headed to law school at IUPUI.

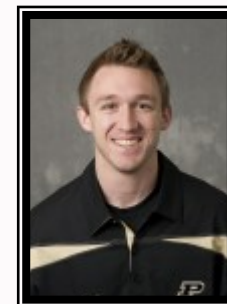


Graduate Assistant Gavin Roberts, who currently works with men's basketball, men's tennis, softball and cheerleading, has completed his master's degree and will pursue a full-time position.

We thank them for their service during their time here and will miss them!

Please Welcome....

Will Swann, currently a graduate assistant at the University of Kentucky, will join the staff to replace Spencer. He begins June 1. Please assist us in welcoming him when he arrives on campus.



Inside The Huddle

Coach Bonhotal talks with men's and women's divers

Diving is an incredible sport, which requires a unique combination of explosive power and technical grace. Hear what a couple of our divers had to say about how Purdue Sports Performance has helped them jump to new heights at the pool.

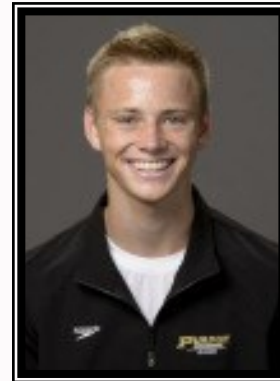
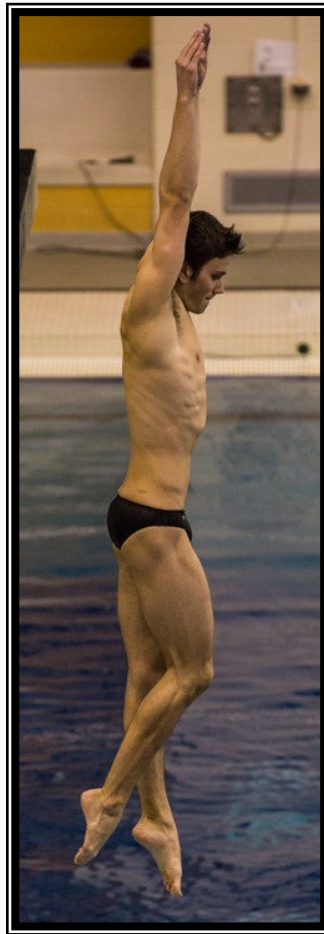
**Samm Reese
Women's Diving**



The squats and jumps we do have helped me at the pool to jump higher and really have that pop off the board and tower.

I really like when we do speed squats. I also like the new core training we do that is really specific to diving.

To be a great diver, you have to be really determined and patient because a lot of things don't come easy with diving; it takes a lot of repetition. Lastly, you just have to commit to hard work.



**Steele Johnson
Men's Diving**

The core program we have implemented has definitely helped me get a tighter core and has given me more control over my dives. Any sort of ab or oblique exercise is beneficial. Being a diver, you need a tight core on the takeoff, throughout the dive and through the entry. I feel like the ab and core exercises have done that for me.

Lastly, divers definitely need to have a strong, lean body. You don't want to be too bulky, but you don't want to be too skinny. You need to have a strong core and strong shoulders so you don't get any injuries, and you need to be able to jump really high.

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Inside The Huddle

Coach Giacchino talk with men's and women's cross country.

Hope Schmelzle, Women's Cross Country

1. Which aspect of your sports performance training has impacted your performance the most?

Coming into college, I thought upper body weight training had very little to do with my running performance. My mentality was the faster I run when I train, the faster I will race, and maybe throw in a few core strengthening exercises here and there. It wasn't until the start of my sophomore year, when I truly started focusing on my upper body weight training, that I realized how much I used my arms in races. Having put in more work in the weight room with upper body training has really given me an edge this year, especially at the end of a race when I am kicking to the finish line.

2. What exercise or exercises do you find the most beneficial for your sport?

Core strengthening of any type has huge benefits to runners of all speeds and distances. For me, as a cross country runner in the fall and a steeplechaser in the spring, I depend on my core to keep my form in check during the longevity of the race. When fatigued, it's very easy for me to drop form first, which ends up expending a lot more energy in the long run. This year, I have felt extreme improvements with addition to core strengthening in the weight room, especially with the Sorinex rollers and bear crawls.

3. What would you say are the best attributes of a successful cross country runner?

To become an elite distance runner, the sport quickly becomes a lifestyle. Bed times become more important, bathroom visits become more frequent and ice baths/rollers become your best friends. Food must be seen as fuel, and eating the right foods (as well as enough!) is so vital in order to carry the runner's body through his/her race. Finally, a successful distance runner must be as passionate for the sport as they are diligent and self-disciplined. Whether it be going out for an eight-mile recovery run or stepping on the line at the NCAA Championship meet, athletes must have a burning desire to push themselves to be the best runner they can be each time they start a run to truly be successful.



4. Something unique to what you do. People assume you just run for a long time, but we know there is more to it.

We've all heard the quote that running is "90 percent mental and the rest is physical". Though I'm not sure if the proportion is correct, there is definitely some truth in this statement. The physical aspect of running is very important, but each week when I start a workout, I find myself testing the strengths of my mind almost more so than my physical limits. As cheesy as it sounds, your mind truly can be your toughest competitor. In my opinion, dominating the voice in your head begging you to quit is the hardest, yet largest, step in becoming the best runner you can be. Once you become comfortable with being uncomfortable, there are no limits on what you can accomplish.

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Inside The Huddle

Coach Giacchino talk with men's and women's cross country.

Matt McClintock
Men's Cross Country



1. Which aspect of your sports performance training has impacted your performance the most?

A lot of what I have worked on during my college career is improving the strength in my core and shoulders. Running 85-plus miles a week year round gives my legs plenty of work so a lot of my focus goes into the little muscles in the hips, core, back and shoulders that help me stay upright and allow my efficiency to stay peaked even in the late stages of the race when fatigue begins to set in. I have observed over my time here that the people who tend to win are the ones who appear to have the least change in their form over the course of the race.

2. What exercise or exercises do you find the most beneficial for your sport?

In terms of exercises, body weight, band and low weight/high rep upper body work has seemed to work the best for me. High weight/low rep work doesn't seem to work the endurance portion of muscle metabolism that I require, I have found that it improves my overall power, but I am unable to utilize the power at the end of the race without the endurance. As a runner, it is also a key to proper strength training to develop effective muscle mass without drastically increasing the body weight I must carry over 5-plus miles of racing. Again, the body weight, band and low weight exercises seem to help me improve my overall efficiency while limiting a gain in unneeded muscle mass.

3. What would you say are the best attributes of a successful cross country runner?

I believe the biggest key in being a successful cross country runner is a persons ability to slow down what is happening around them and be able to analyze what they and the competitors around them are doing and be able to project what these "happenings" will result in five, 10, 15 minutes down the road. Running well is all about putting forth the least amount of work in the first two-thirds of the race to put yourself in position to achieve a positive result over the last one-third. Those who can effectively separate real moves from pointless surges are the ones who move themselves through the race most efficiently and have the most left at the end.

4. Something unique to what you do. People assume you just run for a long time, but we know there is more to it.

I don't think people realize the amount of work I put in outside of running. Overall, I average running for about 75 minutes a day, but end up spending nearly twice that everyday in terms of other exercises such as drills, strides, core work, strength training and recovery. Obviously, running more is how one is going to improve in the sport of running, the problem arises that injuries arise so swiftly in the form of overuse problems. Injuries in our sport are so different from those seen in other sports where an athlete may tare an ACL, get surgery, rehab and comeback. Overuse injuries are so frustrating because there is not much you can do to treat them but rest. I sat out the first month of indoor season with IT band syndrome, causing pain in my knee. Treatment was just not running and an anti-inflammatory and waiting until it went away. This is why I believe strength of the small structural muscles and proper recovery are so important in our sport.

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BOILERMAKER SPORTS NUTRITION

Supplement Facts

Serving Size: 1 Scoop (13.5g)
Servings Per Container: 30

Amount Per Serving	%DV*
Protein (as L-Glutamine Peptides)	2g
Vitamin B6 (as Pyridoxine HCl)	10mg 500%
Vitamin B12 (as Cyanocobalamin)	25mcg 417%
Calcium (as Calcium Glycinate Chelate)	65mg 7%
Magnesium (as Magnesium Aspartate)	60mg 15%
BCAA Matrix 2:1:1	5000mg **
L-Leucine	2500mg **
L-Isoleucine	1250mg **
L-Valine	1250mg **
Aminolix EAA Endurance Matrix	3335mg **
Beta-Alanine	
L-Phenylalanine	
L-Lysine	
L-Threonine	
L-Citrulline Malate	
L-Histidine Monohydrochloride	
N-Acetyl-L-Methionine	
Cissus Quadrangularis Extract (Standardized for 2.5% 3-Ketosterone)	
Agmatine Sulfate	
Alpha-hydroxy-isocaproic Acid (HICA)	
AstraGin™ (from Panax Notoginseng and Astragalus Membranaceus)	
ActiGin™ (from Panax Notoginseng and Rosa Roxburghii)	

*Percent daily values (DV) are based on a 2,000 calorie diet.
**Daily Value (DV) not Established

Other Ingredients: Citric Acid, Natural and Artificial Flavor, Malic Acid, Sucralose, Silicon Dioxide, Maltodextrin, Acesulfame-K, Dicalcium Phosphate, Soy Lecithin, FD&C Red #40, FD&C Blue #1. Contains Milk and Soy Lecithin. Contains 0% Juice.

Evaluating Nutrition Supplements

- Dietary supplements include any product taken by mouth that contains a dietary ingredient intended to supplement the diet
 - Vitamins, minerals, herbs, botanicals, amino acids, etc.
 - Dietary supplements typically have a “Supplement Facts” label on the package, whereas food items have a “Nutrition Facts” label.
- Dietary Supplements are **NOT** monitored by the FDA
 - No guarantee that supplements are pure, safe, or effective
- Third party organizations can independently test batches of dietary supplements for banned substances
 - NSF Certified for Sport® : www.nsf sport.com
 - Informed Choice : www.informed-choice.org
 - US Pharmacopeial (USP) : www.usp.org



ALL DIETARY
SUPPLEMENTS
SHOULD BE
APPROVED BY
YOUR SPORTS
DIETITIAN!

RED FLAGS!

- Be cautious of label claims: “testosterone booster”, “metabolic energizer”, “fat burner”, or “metabolic booster”
- Beware of “blends” on supplement facts labels:
 - Proprietary Blend** - company does not want to share information
 - Herbal Blend** - can often be contaminated or impure



CONSEQUENCES OF TESTING POSITIVE: BANNED SUBSTANCES

- * - Loss of one (1) season and ineligible for a 365 day time period for a Positive Drug Test for a Banned Sub-
- * - Loss of 50% of a season for a Positive Drug Test for a "Street Drug"(NCAA testing)

Contact your Sports Medicine or Compliance staff with questions about testing and penalties.

In the News: Football receiver suspended for 2014-15 season

- * Purchased a nutritional supplement for use in workout routine
- * Supplement was purchased over-the-counter and easily accessible
- * Was **NOT** approved by sports medicine staff, including dietitian

Stats:

- * 94 (14.8%) of 634 freely available substances contained anabolic agents that were not declared on the label
(Int J Sports Med 2004;25:124–129.129)
- * 25% of 52 products tested contained small amounts of steroids or other banned substances
(C. Judkins, D. Hall, K. Hoffman ; investigation into supplement contamination levels in the US market; HFL Sport Science 2007)



@BoilerFuel



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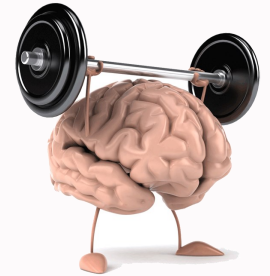
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Mental Conditioning

"Developing Mental Toughness"

By Dr. Chris Carr, Sport Psychologist



Exercises to Enhance Performance

Goal Setting

- Daily use of goals
- Specific, Challenging, Realistic, Adjustable, Measureable
- 3x5 Cards (daily practice/games); Journal (written)
- Goals for relaxation/studying/social

Use of Relaxation/"Centering" Exercises

- "Doing" an exercise three to five times per week
- Relaxation exercise/CD
- Yoga, Meditation, other form of "centering"
- The key is "doing"

Visualization Exercises

- "Doing" an imagery exercise three to five times per week (daily is best)
- Attach imagery to Relaxation/Centering exercise
- Develop imagery "scripts" (e.g. best sport performance, academic performance, social situation) that enhance confidence
- Develop both external and internal imagery
- Involve all senses (sight, sound, feel ...)
- Keep all imagery "positive" (even situational imagery)
- Journal entry with a positive imagery experience ("it works")

Journal Your Process

- A journal "reinforces" your mental preparation and mental toughness training
- A journal can be a "reflection" (how my day went) and can also be "instructional" (my "best performance" scripts; my pregame focus plan); it also can instruct you how to "control" your performance anxiety...
- A journal reinforces your "beliefs" about yourself and your training/preparation
- A journal can list your "Motivations" ... why you compete and why you sacrifice...
- A journal describes your "journey" ... it is unique and personal.

*These are some simple "steps"
to develop your mental toughness.*

Good luck on your personal journey!!

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Purduesports.com



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BOILER UP™