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Training the Athlete in Every Body

by Johnny Nguyen



Great Britain's heptathlete, Kelly Sotherton.

This trademarked phrase has been with FIT since the early days, and it has guided our exercise programming ever since. It is our training philosophy, using the means by which great athletes train; however, this does not refer to any singular athlete of any particular sport, but to the inner athlete of every person that walks through our doors. Our mission has been, and will always be, to make people fit and healthy.

What exactly do we mean by “the athlete in every body”? You don't have to compete in a sport, but you can have a body that moves better in everyday activities. The movement does not have to be suave, but it can be better than if you were untrained or unfit. You don't have to demonstrate a 28-inch vertical jump, but you can jump higher than you've ever jumped before. You don't have to run like lightning, but you can run faster than you did yesterday. Your endurance doesn't have to last, but you today you'll make it one minute longer than you did last week. What we mean by “the athlete in every body” is that the performance of your body can improve – often with positive changes in

body composition to show.

But perhaps the biggest reason we developed the phrase “training the athlete in every body” is because we use the same means to make you fit that competitive athletes use to win medals. These means comprise of a wide variety of exercises used by athletes of various sports. But if we have to use a singular athlete in a particular sport as an example, I'd have to turn the attention to the decathlete (heptathlon for women). This track and field athlete is developed to compete in a wide variety of events – ten in all for men and 7 for women, and these events exploit physical qualities that span power, speed and endurance. These are the traits that bring you optimal fitness, metabolic health, improved body composition, quality of life, and longevity.



Roman Sebrle, decathlete



Body composition reflecting all-around fitness.

Of course, we don't take our clients to the track (although we have on occasions), but we develop much of the same physical qualities that decathletes possess. We use a wide variety of exercises to accomplish this, from throwing to weightlifting, from sprinting to jumping, and from running to rowing. Power, speed and endurance – we train the athlete in every body.

But if you ever want to specialize in a particular sport, we can meet that goal, too. We have a group of national- and international-level Olympic-style weightlifters training under the watchful eyes of one of the brightest and most committed coaches in the sport. We have an NFL athlete training with our trainers at FIT in the off-season. We have national and international cyclists doing strength development to support their performance on the bike. We have a professional golfer who has been with us from the days when we developed the phrase “We train the athlete in every body.”

But for the majority of people who walk through our doors, the only competition they face is life and all that it presents. We’re here and we’re always ready for the athlete in you.

Protein: Whey Versus Casein

by Scott Kolasinski

The various issues related to protein have been debated for years in an effort to reveal the optimal amount of protein to be consumed, the perfect time to ingest it, and, finally, the best type of protein to use. What would happen if we answered all these questions correctly? Well, the two most coveted fitness effects would be experienced: You could build more muscle and lose more fat.

Last month was a detailed discussion of the different types of milk protein that are available, how they are made and how this makes each of them unique. This month I am going to put the whole picture together so that you can try to utilize these proteins more effectively and make better choices of which products to use according to your lifestyle and goals.

Whey vs. Casein

The most popular debate in the protein supplement media is the whey vs. casein debate. Recall in my previous article that whey and casein have different components or subfractions, and it is these subfractions that make the protein distinct. Also, whey and casein have different physical differences. Whey protein moves quickly through the stomach and small intestine, while casein “clots” in the stomach. Our bodies absorb casein slower than whey. Much of the media attention says that whey is better.

Why?

During and after certain types of exercise, there is continual protein degradation. In order to optimally recover from this injury, there must be a surplus of amino acids available for use to repair. Because the amino acids in whey are absorbed quickly, this results the body repairing muscle, making enzymes and hormones, and whatever else may be needed. Blood amino acids rise and peak 1-1.5 hours post-ingestion and return to normal 5-hours after eating whey protein. However, this rise in amino acids does not impact protein breakdown.

On the other hand, casein creates the opposite effect. The slow delivery of casein will lead to a small but steady increase in blood amino acids for at least 7 hours. This stimulates protein synthesis to a smaller extent than whey but it does significantly decrease protein degradation.

So what does this information mean for us? A study comparing the effects of whey vs. casein on net protein balance (i.e. protein synthesis and degradation) after 2-h and 7-h showed that after 2-h, there were no significant differences in protein balance between the two proteins. However, after 7-h, the body was synthesizing more protein in the casein group than the whey group.

Perhaps the issue is the “speed of absorption” that is the issue here. Another study wanted to compare a “regular” slow-digested casein, to a manipulated fast-digested casein and a “regular” fast-digested whey protein, to a manipulated slow-digested whey protein and once again look at the effects on protein balance. These results showed that at 7-h, the “slow” protein (whether whey or casein) created a positive protein balance than the “fast” protein (whether whey or casein). So it appears that the

speed of the protein's absorption is what makes the difference.

Another study has showed that compared to whey, a milk-protein isolate drink (80% casein, 20% whey), when on a training program, may be a better way to enhance fat loss and muscle gain.

Are casein and whey healthy? Casein has been shown to increase HDL levels (the good cholesterol) in men. In rat studies, casein has been shown to decrease inflammatory markers related to cardiovascular disease. There needs to be further research to show this in humans.

However, in whey's favor, one study showed that when supplementing with 20g of whey or casein for three months, the whey group had up-regulated their antioxidant defense systems and had an increase in anaerobic performance. The casein group did not show any improvements.

Whey also has some very potent immunological benefits as well as other healthy effects. It has been shown to increase HDL, decrease triglycerides, and decrease blood pressure in healthy men. Because of whey's antioxidant ability, endurance athletes, who commonly suffer from "overtraining syndrome" prior to competitive events, have been suggested to supplement with at least 25g of whey protein per day during periods of moderate to hard training to help protect their immune systems.

Summary and Recommendations

As you can see, there are benefits to both whey and casein. How are they when combined in one drink/serving? Today, researchers are realizing the benefits of both and their research has shown that the best overall combination in terms of adding muscle mass, metabolizing fat and/or retaining muscle while dieting is a blend of milk proteins. However, what is not clear is the optimal ratio of whey:casein. Products vary by their whey:casein ratio. Researchers also vary the amount of whey:casein, yet everybody appears to be getting beneficial results. Which one is best for you is dependent on your goals, the taste, allergenicity and your sensitivity to the amount of protein per serving.

I have found nothing to suggest one company's brand of protein is better than another. Certain companies have studies that support their product can create results under their tested exercise protocol, but this does not mean that the results would not have happened with another product of the same exercise protocol. The results suggest it is the addition of the protein, not the product, which creates any benefits in people. Supplement companies like to take advantage of the public's ignorance concerning this.

If you can obtain your protein needs only through whole food sources, then congrats! Humans have adapted to chew, not drink their protein. You may not necessarily need a milk protein supplement.

However, convenience is an issue for our fast-paced world and that is where eating a bar or making a shake is better than not having anything or fast food. Protein powders as "meal replacements" (which contain healthy fats, and some carbohydrates along with protein) are definitely healthier and cheaper than a lot of the fast food or microwave dinners that are offered today.

A simple guideline for how much protein you should consume is 0.8-1g/lb. of body weight. Depending on your training intensity and goals, you may need more or less, so some experimentation may be needed.

Throughout the day, eat whole food sources and supplement as needed with products that contain slow proteins like blends of milk isolate, casein and whey. After exercise, a post-workout drink of a whey/casein product that contains at least 20g of protein is ideal. Finally, before bed, a slow protein like casein, cottage cheese or a blend of mostly milk isolates and whey is necessary to keep blood levels of amino acids high

and in a positive protein balance while sleeping.

If you would like to know of various products that utilize any of the filtration methods of milk protein that were discussed in the last article or how to further optimize utilizing products that contain these milk proteins, then please email me at Scott@focusedtrainers.com.

Support, and When It's Not There

The past two issues of FIT Monthly have included the topic of peer and family support for a fitness program to which you might have committed yourself. In those issues we explored why it's important to have support outside of the gym, as well as looked at the ways in which we happily receive the support. This month we read a personal account of someone who discovers that the support by her significant other is not ideal.

Support at Home

Support at home wasn't always halfway there, nor was it ever a question that he believed in me, my efforts in the gym, or my nutrition habits. Being active has always been a part of both of our lives, in the form of team sport early in life and then as we grew older, it became more of a regular routine with gym workouts, running on the weekends, and random physical adventures when time allows (i.e. bike rides, hikes, etc). Therefore, when I came home one night and started preparing dinner, I heard for the first time that there was a slight degree of separation between my views of exercise and nutrition versus his.

Our general pattern was that I'd prep and cook dinners, sometimes making more food for him as he requires more calories than I do, and our food would be a little bit different due to my weight loss goals. For example, I'd marinate two chicken breasts in teriyaki sauce (his favorite) and put some type of dry rub on mine. We'd both have vegetables accompanied by some type of starchy carbohydrate, generally something brown (rice, quinoa, etc). After a few months and some obvious success with my weight loss he began to slip in little snippets here and there, asking why I never just come home and order pizza, or when my next cheat meal was going to be. At first, I thought he was challenging me a bit. But one night it evolved into a full blown argument about how he hates eating with me because we eat different things and he doesn't understand why we can't eat the same.

Long story short, he was beginning to question his dedication to his own personal health and wellbeing because our exercise and nutrition choices were so different. The discussion following this revelation revealed that while I live each day focusing and often times worrying too much about what I am fueling my body with, aiming to eat the correct amounts so that my performance and body weight are in line, he is worrying about whether or not he needs to focus more. It's amazing that I never even thought the reason he didn't seem supportive of me was because it caused him to look at his own health, body weight, and physical attributes.

Although we had a very constructive discussion about how to communicate and support, (be positive with your partner, encourage their efforts, and ask if you don't understand), there is still a gap. As the person in the duo who is more active, cognizant of personal health, my recommendation is to make sure that you're living your life for you, making choices that are best for you and realize that they will not always be understood or supported by those around you. As for my personal request to those on the other side, please do your best to ask if you don't understand why your significant other is making their exercise or nutrition choices. Ask if there is an optimal way for you to support them and don't be afraid to be candid.

If it were easy, we'd never have anything to strive for.

FIT Client of the Month, August 2008

Client Name: Kerri Rosen

Age: 40

FIT member since: Fall 2005

Goal: I wanted to lose weight and get in better shape because I wanted to get pregnant again. I lost 25 pounds in the first year and got pregnant. I've lost another 28 pounds since Jack was born and I hope to lose more.

Results: I feel strong and healthy. I have a busy life and a busy mind and working out helps me calm down and sleep better. I'm happily shopping for smaller clothes!

Likes: The exhausted and completely satisfied feeling I get at the end of a really hard workout, "heavy" days, negotiating with Jen (even though she never gives!), my work out partners, and med ball slams (very therapeutic).

Dislikes: Rowing, parallel bars and knees to elbows.

Key to success: Jen!! She keeps my workouts interesting and challenging. She's taught me to always work hard and to push my personal limits.

Summary (from her trainer Jen): When Kerri first started at FIT, she was a little apprehensive and definitely had a list of things she did and did not want to do. Since then, she has learned to push herself beyond what she thought her body was capable of and is almost always open to trying new exercises she never thought she would agree to (although she still says unless I chase her with a knife, she will not run). She is extremely disciplined and works extremely hard inside the gym as well as at home where she squeezes in workouts between naps and feedings. One of the key to her successes has also been a FIT client, Barbara Wipfler, who heard Kerri may have to stop coming to FIT due to childcare. Barbara offered to come to FIT and watch Jack so Kerri could continue to workout. Since January, Kerri has been extremely diligent about working out at home in addition to FIT and has given up sweets and sugar. When I recently asked her about her diet and her success, she said it was Barbara that helped keep her disciplined. She said she couldn't dare break her diet or give up a workout knowing that someone was volunteering their time to help her reach her goals. Thanks for the extra hand Barbara and Congratulations to Kerri!

The Walking Lunge

by Johnny Nguyen

This is a common exercise that nearly everyone does at the gym. There are many varieties of the walking lunges, some of which I'll mention below. But let's look at some of the benefits of the simple walking lunges that we often see:

- Stronger legs
- Major muscle groups are targeted, such as the gluteus, hamstrings, quads, and calves
- Improvement of stabilization in the ankle complex (via greater proprioceptive challenge)
- Legs are challenged independent of each other
- Increase in hip and leg flexibility
- Heavy load is not required to challenge the muscular and cardiac systems
- More awareness to dynamic posture (trunk straight, hip-knee-ankle-joint alignment, etc.)



It's For Everyone

If an individual can walk, generally the individual can perform the walking lunge, with appropriate modification as needed. The classic walking lunge is performed with the front leg stepping forward (about 18 to 24 inches) and with the back knee bending and gently tapping the ground. However, it can be modified to meet everyone's skill and strength level by controlling the stride length of the step and the depth of the lunge. For some people, simply stepping forward with a shorter stride and bending just a little at the knees will provide enough stimuli to challenge the lower-body neuromuscular system. (Other ways to reduce challenge is to hold a broomstick or a more stable structure like the back of a chair.)

Variations

Walking lunges can be done with hands held overhead, effectively raising the center of gravity, thus increasing stabilization demands through the kinetic chain.

Rotating the trunk during walking lunges provide another stabilization challenge. Rotation of the trunk can be done to either side of the forward leg.

Walking lunges can be performed with a variety of angles. For example, you can step out diagonally – or anywhere between 0 to 90 degrees. If you are stepping 90 degrees out, this means you're performing sideways walking lunges. These variations increase hip and leg flexibility, as well as add and improve neuromuscular patterns.

All of the variations of walking lunges covered can be done with added weight, either held in the hand (medicine balls, dumbbells, kettlebells) or placed on the upper back (barbell).

Barbell Club

FIT Barbell Club head coach Rob Earwicker creates an atmosphere that encourages lifters and athletes of all skill levels to reach their goals in a team setting. Our club is open to everyone from the recreational athlete, high school, collegiate, and pro athletes in explosive sports, and the aspiring Olympian. Olympic-style weightlifting improves coordination, flexibility, strength, power and speed, enhancing athletic performance in all sports as well as functionality in life. Olympic-style weightlifting also aids in injury prevention, body fat loss, and has positive effects on both bone density and muscular health.



Body composition reflecting all-around fitness.

Coach Rob has sent a number of lifters to compete and medal at the School-Age, Junior, Collegiate, and Senior National Championships. Additionally, FIT BBC athletes have competed in International Competitions. Whether you are looking to compete at a local level, aiming for a national championship, or are interested in furthering your Olympic-style weightlifting experience, please contact Rob at rob@focusedtrainers.com.