Focused Individual Training
Training the Athlete in Every Body™

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Putting Exercise into Perspective

by Johnny Nguyen

This month FIT is be hosting the Norcal Open weightlifting meet. Lifters of all ages will compete – women and men, beginners and seasoned. If you won't be participating then I hope you'll be a spectator, because it will be big.

After the last competitive weightlifting meet hosted at FIT, a friend asked if this isn't bad for the image of the company, displaying a bunch of people lifting extremely heavy weight to win medals. He had a point. The answer is… maybe. But we feel that weightlifting, running, cycling and most sports represent what FIT stands for: An active lifestyle. It's not just about weightlifting, but also about any activity that gets people off the couch and moving their bodies. So we try to support athletic events at any chance we get.

In the past, FIT has hosted running and cycling races, competitive events in which many people like you and I participated and gave our physical best. Twice we've hosted the annual national Crossfit event, "Fight Gone Bad," raising thousands and thousands of dollars to benefit prostate cancer research. We will continue to host athletic events of all levels. It is in our company's DNA, and we're very proud of it.

But I would like to bring something to the front at this time. The Norcal Open weightlifting meet is a competitive event, and like most athletic competitions, participants will perform physically at, or above, their physical limits. And, just like athletes of any competitive sport, they will assume inherent risks. Soccer, football, tennis, marathons, triathlons and almost every popular sport in America have their share of risk and injuries.

Here is the kicker though: Statistically, Olympic-style weightlifting (which you'll see at the Norcal Open) has some of the lowest number of injuries per hour of participation – lower than soccer, tennis, running and most other sports into which even most sane people are willing to put their children.

But I am not making a case for Olympic-style weightlifting, or for any other sport, for that matter. I am merely pointing out that the risk of injury goes by degrees: the higher the physical output, the greater the risk. The best way to not get injured is to be a couch potato. But that is not an option for reasons I should not have to mention.

When we take something that is otherwise healthy (e.g. weightlifting, jogging, tennis, dancing, etc.) and turn it into a high-level competitive activity, the risk of injury goes up. It is the nature of being active. (Relevant pop-culture trivia: Dancing with the Stars' Cristian de la Fuente suffered a torn biceps ligament during a competitive dancing routine while Derek Hough received a neck injury during a dancing rehearsal.)

But we realize that most people workout with us to get healthy and fit, and that is what we are about. We use elements from multiple sports to deliver the health and fitness that people seek. This includes running, jumping, pushing, pulling, throwing and lifting. The typical fitness program – which millions of people have used for decades in commercial gyms – is borrowed from the sport of bodybuilding since the 1950s, as well as from the Iron Sport of the early 20th century, used primarily by circus strongmen and later by strongman competitors and strength athletes. The same stuff once used in circus shows is now endorsed by thousands of medical doctors.

The exercises are the same whether you're a competitive athlete or a busy CEO who wants to get fit; the difference is in the load and intensity. For example, my client, a petite mother with two children, uses 77 pounds in the clean and jerk to

build strength and power and burn calories, while a competitive weightlifter might use 300 pounds to win a first-place medal. This same client of mine runs 3 miles for aerobic fitness, while a marathon runner runs 26.2 miles for personal satisfaction and bragging rights.

The means to get fit are the same as the means to win medals; the difference is in their load and intensity. The next time you watch a sport displaying some of the world's best athletes, remember that they too were probably using the same exercises you used in your last session to become fit.

Olympic-style Weightlifting: One of Many Elements at FIT

by Tracey Downing
Co-Founder and Co-owner, FIT

(This article first appeared in Los Altos Town Crier)

Activity in adults and children has declined over the past few decades while obesity rates have soared. Nearly two of every three Americans are overweight and obese - a 50 percent increase from just a decade ago. More disturbing: nearly 15 percent of our children and teenagers are overweight, about eight million kids. Studies show that overweight children will probably grow up to be overweight adults who may develop serious illnesses as a result. Type-2 diabetes is one weight-related illness; its prevalence increased almost 50 percent from 1990 to 2000. As a result, parents are on the lookout for fun activities at which they and their children can succeed. Physical education in school has been a big part of children's exposure to sport, but it's been limited by budget cuts and shifting priorities. Organized sports, another traditional choice, have their downside: Someone is always going to sit on the bench, and someone is always going to be a bit more talented. Olympic weightlifting is an excellent exercise option for parents and children. It is a form of resistance training, which improves strength, flexibility, balance and coordination - all of which help improve confidence in one's physical abilities and overall health and fitness.

Olympic-style weightlifting refers to the collection of exercises called the snatch and the clean and jerk. Their fundamental purpose is to build power throughout a full range of motion, using every major muscle group to perform each lift. In the snatch lift, the barbell is lifted from the ground to arm's length overhead in a single, continuous movement. In the clean and jerk, the barbell is lifted from the ground to the shoulders and then to the overhead position. If performed with poor technique, the lifter, in most cases, will fail to accomplish the lift. The enormous amount of technical skill required to perform these lifts makes them among the safest activities for adults and children, if closely supervised by qualified professionals. Such programs as FIT Kids and FIT Teens allow children and teenagers to hone their athletic skills by helping them become quicker and more powerful, to increase their muscle and connective tissue strength, to enhance coordination and motor awareness and to build strength and flexibility.

For adults, Olympic-style weightlifting is among the most efficient ways to train every muscle of the body as long as trainers and coaches provide training and supervision. The Olympic-style lifts and their derivatives are incorporated into FIT's personal training programs for all the benefits listed above, as well as many of the other physiological benefits they elicit. These include a metabolic shift, which is effective for weight loss; improving flexibility; building strength throughout the individual's range of motion; offsetting age-associated loss in bone mineral density; and increasing functional strength and power.

Olympic-style weightlifting is included in FIT's overall health and fitness program, not by whim but by thoughtful analysis of all its benefits.

Ready for Recess

by Analisa Naldi

It is no secret that in a perfect world we would all do what we love. Some of us would workout three times a day, take naps and eat in between. Others would travel the world, taste every type of food, and write a review, or simply write our name on the wall somewhere. And then there are those who'd work, in an office, on a private jet, from a luxurious hotel room, wherever, but they'd work every minute, of every day, getting minimal rest and maximum results. So, why is the statement "Do what you love" plastered everywhere?

After writing the burpee recap last month, I received a lot of funny feedback. Some asked why? Others just asked if we are just a little crazy. The answers were, why not? And, of course, we are. But, I found myself repeatedly answering with the following statement: "Our job is the perfect combination of my favorite class and recess." In my favorite class, I have a fabulous teacher (in this case, co-workers, clients, practical experience), a curriculum that entices me on a regular basis (our ever-changing world of exercises, health, and fitness), and an environment that facilitates me to be myself and be the best person that I can be all at once (FIT). In conjunction, being fortunate enough to play on the best team during recess (our highly qualified staff) enables me to be constantly challenged, play harder, play smarter, with each day being different, fun, and adventurous.

One of the most unique qualities about the environment at FIT is that not only is our staff knowledgeable, passionate, and, dedicated, but we all love to be here. While we have a very positive team dynamic, the fact that we all genuinely enjoy our job is due to the combination of what we do each day and who we do it with. Our clientele is a one-of-a-kind. We have an ex-Olympic water polo player at age 60 doing pull-ups next to a 40-year old housemother doing leg raises. On the platforms behind, we have a couple, married for 15+ years, performing the Olympic-style weightlifting they've just learned, focusing on their technique, versus competing with each other. After completion of a set, they high-five each other, ask a question or two of their coach, and continue with their workout.

Does the demographic here really matter? Do their individual levels and years of gym experience really matter? Nope. What really matters is that people come to FIT to learn how to safely and correctly implement functional movements into their daily regimens. They show up and they do their thing.

This is not meant to imply that upon entering the door, each person is overcome with a sense of happiness and peace, ready to sit by the campfire and sing Kumbaya. What this means is that this facility is a place where education, experience, raw emotion, and effort collide to create an unparalleled entity.

Now, taking it back to "doing what you love." Personally, I love what I do. This is not a secret. I love the physical demands of my day. I love the personal interactions with every type of person you can imagine, day in and day out. I love that I never know how many times I will be cursed at and then thanked within the same hour. But, most of all, I love that not everyone that comes through the doors of FIT loves and wants to workout.

Some walk through those doors because they've dedicated their energy to becoming healthier. Some walk through those doors because someone at home threatened to change the locks if they didn't. Some walk through those doors because they simply need to use the bathroom. Whatever the reason, they walk through the door, which means we are given the chance, even with just a "hello," to share a bit of us with them.

I've finally figured out that is one of the biggest reasons why I love my days at FIT. We never know who is going to walk through that door. Therefore, we are always on point, always ready for what will be thrown into the fire, always ready for that pop quiz, (think: favorite class). At the same time, we all practice what we preach. This not only includes visual cueing, demonstrating the exercise we're teaching, and doing push-ups every time the bell rings, but also possessing a

sense of team, unity, and friendship that is strong and family-like. Now, we're back to the playground at recess.

So, whatever way you look at it; favorite class, recess, your gym, that dreaded place in which you have to sweat twice or three times per week, the point is you're here. You are a part of this. And for that, I thank you.

Know Your Milk Protein

The Differences Among the Types of Milk Protein
by Scott Kolasinski

Protein is composed of chains of amino acids. There are twenty-two amino acids. When various forms of amino acids come together, they form protein. Therefore, different forms of protein contain different concentrations of amino acids. The primary source of dietary nitrogen (an essential element) for the body comes from these amino acids, usually in the form of meat, fish, eggs, dairy, soy and/or various nuts.

Of these, milk proteins have been extensively studied in the literature because of their many benefits of stimulating muscle production (such as in strength athletes), muscle retention (such as the elderly), muscle immuno-enhancing effects (AIDS and cancer patients), and beneficial changes in body composition (such as fat loss in overweight people).

Many of these milk proteins are now sold in nutrition stores to help the population with their goals, however, there are so many forms of milk protein available, that a consumer may get easily confused among them and wonder why would an individual want one product versus another. This article will help answer this question.

Milk Protein Concentrate and Milk Protein Isolate

Milk protein concentrate (MPC) and milk protein isolate (MPI) both contain the two primary proteins of milk called casein and whey (the liquid proteins). Concentrates and isolates are very similar, except isolates differ from the concentrates in that isolates possess a high protein content with almost no lactose content. However, because of the greater filtration, MPI may lack in subfractions (i.e. the molecular components) compared to MPC.

Undenatured proteins (i.e. less processed proteins) retain their original bioactive properties. The bioactive properties or subfractions, are what make each protein unique. Therefore, the greater the bioactive properties in the final product, the better the product for obtaining the health benefits of the subfractions.

The beauty of MPC and MPI is that because they contain both casein and whey (explained below), they contain the benefits of both of these proteins, but in lesser concentration as opposed to taking a purified bolus of whey or casein. MPC and MPI have interchangeable uses, but because of MPI's solubility and greater protein content, milk protein isolate would be the preferred protein for people seeking to add high-protein, low-carbohydrate and/or low-lactose foods to their lifestyle.

This does not mean that MPI is superior to MPC. It depends on an individual's goals. For example, because of an MPC's greater fat content (low as it already is), it contains various subfractions. Studies suggest these compounds can improve immunity and intestinal health that both athletes and "normal" people may find beneficial. Thus, young and old, active or inactive, we all can benefit from a product containing some milk protein concentrate/isolate.

Whey Protein

Making up the liquid portion of the cheese-making process is whey. Whey's popularity has increased dramatically in recent years because of how cheap it is to manufacture and because of advances in processing technology.

Whey contains an impressive and complex array of subfractions. These subfractions include b-lactoglobulin, a-lactalbumin, immunoglobulins (IgGs), glycomacropeptides, bovine serum albumin and minor, smaller proteins such as lactoperoxidases, lysozyme and lactoferrin. Also, whey protein is a great source of branched chain amino acids (BCAA). BCAA's are ideal for recovery from exercise. I know, this is a lot of "big-worded" scientific jargon, but protein manufacturers list a number of these subfractions on their ingredient labels to try to impress upon us. Do not be fooled by these potentially impressive lists of subfractions that are used as marketing tools. The above subfractions of whey are in all whey protein products. More of one or the other subfraction may be added to make a product more unique, but there needs research supporting the addition of whatever subfraction is added.

The following is a description of the development of whey protein powders as they have evolved over the past decade in purity.

Whey Protein Concentrate

Whey protein concentrates (WPC) are products derived from whey from which the water, minerals and lactose have been removed. In this form, whey is not of much benefit to athletes, but with gentle low-temperature processing and filtration, this liquid can be stripped of most of its lactose, fat, cholesterol and water to yield concentrated whey powders containing anywhere from 34 to 89% protein. Also, this low temperature and low acid condition ensures that 90-96% of this protein is undenatured thus containing many active peptide subfractions. Most of the health benefits of MPC are derived from whey.

It is important to note that there are significant price and nutritional value differences between the various whey protein concentrate supplements on the market. A WPC containing 34% protein may cost up to 80% less than better quality whey protein concentrates with protein contents of 77% or higher. The process of protein concentration calls for the use of various separation techniques such as diafiltration, ultrafiltration, electrodialysis and ion-exchange technologies.

Whey Protein Isolates (WPIs): Crude, or sweet dairy whey, can also be "isolated" via a process called cross flow microfiltration (CFM) or ion exchange (IE) filtration to produce whey powders that are virtually fat, carbohydrate (lactose) and cholesterol free. By definition, WPIs contain >90% protein by dry weight. On today's market, you will find there are a few products that derive all of their protein content from WPIs, but WPIs are most often used in conjunction with WPC and/or other proteins to boost the overall protein content of a supplement.

Many people often ask which isolation process creates a better form of whey protein isolate. The following is a brief overview of the processes and the potential benefits each has to offer.

Ion Exchange (IE) is a process that separates proteins on the basis of their electrical charge. Ion exchange requires the use of various solvents to create an attractive charge on the proteins. Once charged, these proteins migrate toward oppositely charged resin beads in a reaction vessel. The protein can be later removed from the resin beads by reversing the charge to result in a highly purified WPI. Ion-exchange whey protein isolates contain more than 90% protein content with minimal lactose and no fat. This offers an advantage over whey concentrates in terms of pure protein content.
Although the ion-exchange process sounds pretty fancy, there are serious drawbacks to this method. Due to the nature of the ion-exchange process, the most valuable and health promoting components are selectively depleted. Though the protein content is increased, many of the most important subfractions are lost or greatly reduced, resulting in a denatured protein.

The pros of an ion-exchange whey is for those who simply want the very highest protein contents per gram, but the cons are that the higher protein content comes at cost; a loss of many of the subfractions unique to whey and more expensive than WPC. Is this acceptable? You be the judge.

Cross Flow Microfiltration (CFM) was developed to prevent the problems seen with IE proteins. CFM is a process that uses natural non-chemical ceramic filters to separate whey proteins from a variety of undesirables (i.e. fat, cholesterol, lactose, etc.). Advantages to this process include minimal protein denaturation, preserved protein subfractions and a higher calcium and lower sodium profile.

The only drawback of CFM is the price. One of the reasons for the high price is because the first company that developed the process patented the technology and now controls the price. It is a bit higher than making aWPC or IE whey isolate, but there is a better concentration of protein that offers all of the benefits of whey.

So, to sum up the take home message on the two filtration methods:
Cross Flow Microfiltration - Good

Ion-Exchange – OK at best.

Casein

Casein makes up approximately 75-80% of cow's milk protein. Though not currently "en vogue" with many athletes (due, in large part, to the success of whey proteins), casein is easily assimilated by the body and a complete protein, a protein containing all the essential amino acids in amounts adequate for human use.

When casein enters and mixes with stomach acid, it creates a gel or paste-like substance, thus, slowing its absorption into the bloodstream and giving satiety. This results in a trickling of amino acids into the bloodstream. Because casein has this slow delivery of nutrients and decreased hunger, casein is the protein of choice in the pharmaceutical and food industries where it is used in baby formulas, enteral nutrition products, and meal replacement products.

Summary

Milk proteins contain casein and whey. However, various forms of whey protein have been developed via filtration methods because of the greater number of beneficial subfractions found in whey versus casein. As such, both casein and whey have their own benefits. Therefore, in terms of health benefits, both are beneficial for improving overall health.
Next month, I will describe a protein debate (which is better, casein, or whey?) and let you know what the research has to say. In this way, you will be able to conclude which, when, how and if these proteins should be supplemented to your lifestyle to enhance your personal fitness goals.

Until next time…

Client of the Month, May 2008: Ximena Pavlik

Name: Ximena Pavlik
Age: 35
Member since: 9/11/07

Goal: Ximena wanted to get "strong" and "fit" to keep up with her 3 kids.

Results: Simena has increased her overall strength, power, and endurance. She has noticed the difference in the way her clothes fit. She is training 4 times per week and gets up to run twice per week with friends.

Likes: Squats, lunges, heavy weights, and working out hard.

Dislikes: Running on the treadmill.

PR 500m Row: 2:05

PR Chin-Ups: 100 in 7 minutes (jumping).

Key to success: Ximena works her tail off. She fits her workouts in between dropping off the kids and other errands when she could be sipping a Starbucks or napping herself. She is coach-able, will try anything, and follows directions closely. She always has a positive attitude, even when I know she is suffering. As of mother of 3 (6 years, 4.5 years, 16 months), she is a prime example of the results women like her can achieve when they make health a priority.

From Ximena: Since I've been working out with Thom at FIT, I've shed the extra pounds I gained during pregnancy, I have toned up, and I feel strong and healthy. I love working with Thom because he makes every workout challenging and pushes me to my limits!

Kid Spotlight, May 2008: The Bear

Name: Nathan “The Bear” Schadle
Age: Just turned 14 several hours ago
School: Charles Armstrong (will start Monta Vista High in Fall)

Date you started at FIT: I started training at Barbell Club under Coach Rob in August of 2006, when I was 12.

Your best lifts:
Snatch: 55 kg. (121 pounds)
Clean and Jerk: 72 kg. (158.4 pounds)
Front Squat: 77.5 kg. (170.5 pounds)
Back Squat: 95 kg. (209 pounds)

Bear is a two-sport athlete, participating in baseball and Olympic-style weightlifting. With hard work and determination, and under the guidance of Coach Rob, Bear went to the 2007 National School-age Championships, where he won a Silver medal, his first medal ever. And just recently, Bear turned a triple play in a baseball game.

Bear played baseball before he joined Barbell Club. He was also playing soccer but, with a tight schedule of schoolwork and baseball, he dropped it in order to make time for Olympic-style weightlifting, as he realizes the importance of strength training for overall athletic development.

If you’re ever at FIT in the late afternoons, you can see the lightning speed at which Bear pulls himself under a barbell. This kind of speed, no doubt, increases his athleticism for baseball and for any sport that he may consider in the future.

FIT Announcements

HAPPY MOTHER'S DAY!

Mom, Mommy, Momma, Mother…all names that warm our hearts the first time they are uttered by our children and whose meaning requires constant reinterpretation. Even the most prepared among us cannot anticipate how assuming the role of motherhood will affect every aspect of our lives. After working in this field for the past 10+ years, I sincerely believe that every woman has the best intentions…to be the best mother, the best wife, the best employee, the best everything. But, often, and sometimes seemingly unavoidably, they lose their self in the process (after all, there are only so many hours in the day). This month, we salute you, FIT's "Momma's," who have made the time to take care of your self, who have committed to getting fitter and stronger, and who have chosen to set a healthy example for your children…YOU ROCK!

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FIT FEET

Please join the FIT FEET drive. Bring your slightly used or new socks to FIT for donation! We are joining one of our clients in her self-funded venture to help homeless teens in San Francisco. Starting Monday, May 5 through Monday, May 19, FIT will be participating in a sock drive. Socks may be new or slightly used. Please do not bring anything tattered or unusable. Remember, these are going to those in need, so every little bit helps! For further questions or information, please contact Analisa at analisa@focusedtrainers.com or 650-947-9831 x133. Thank you and here is to happy feet!