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Muscle

by Johnny Nguyen

At a Starbucks in Mendocino I was making small talk with a stranger. As predictable when someone learns that I'm a fitness trainer, she started telling me that she wanted to get into shape – burn a little fat off from here, tone this flab there and maybe shape this area a little. But definitely she did not want to put on muscle. She assured me that she's "not into all that."

I politely changed the subject while subtly assessing her body. While it's true that she needed to lose some fat, this lady had virtually no muscle. Her skin just hung from her bones like skin on an old peach you discover in the back of the fridge. Her body lacked shape, and she probably had been noticing a steady appearance of soft bulges where there used to be none. She didn't know it, but her body is on a downward spiral toward functional decrement, physical frailty and fat accumulation.

And it was then that I wanted to make the theme of this month's newsletter about muscle.

Muscle Mass

Muscle is typically accepted of well-paid, professional athletes. Outside of this group it is generally deemed the traits of guys who are meatheads, Neanderthals or non-intellec[t]s who drag their knuckles across the floor of a gym. And muscle on a woman? Well, she's a gender transgressor, a freaky indelicate, or... gulp... a man. There are many juvenile name-calls from which to choose.

The fact is, muscle has many roles in our lives, men or women. Muscle transcends social

perception and cultural ideals. It facilitates life, improves life, and saves life. It gives us the ability to create the world in which we live, allows us to become who we are, and defines us as functional, dexterous human beings. It is mostly misunderstood.

Below are several benefits we enjoy by carrying around muscle, that part of us that helps to regulate our interior functions, so that we may continue to enjoy our exterior world.

Essential Organs

Our muscle mass provides protein reserves for essential organs like skin, brain, heart and liver. These organs have constant protein turnover, so when they are depleted as a result of turnover, fasting or starvation, muscle provides the necessary proteins. If you sit in a meeting for too long, or missed a meal or two, proteins are shuttled from your muscles to these important organs to keep them functioning properly. Or if you were with the Donner party and were stuck in the mountains, you'd want to be the one with the most muscle to survive the treacherous blizzard. Or be eaten.

Recovery from Acute Illness or Injury

Protein is critical for recovery from acute illness such as cancer or trauma such as burn. Someone who suffered a burn to half of his or her body needs 1.4 grams of protein per pound of bodyweight a day. Add another half gram for organ requirement and accelerated immune cell activity and this amount reaches 2 g/lb./day. To give you an idea of how dramatic this increased need is, the Recommended Daily Allowance (RDA) is 0.36 gram per pound of bodyweight per day. This means a normal 160-pound person requires 58 grams of protein per day; to recover from a severe burn, the same person requires 320 grams of protein a day – over five times the RDA amount. Basically, the protein requirement for recovery from acute stress is far higher than

that resulting from even starvation (Biolo, 2002).

When recovering from a major illness or trauma, no one wants to eat a dozen chicken breasts per day. And, to begin with, people who are suffering typically fail to eat adequately. In this case the body breaks down muscle protein to meet the recovery need. For this reason, people with low muscle mass respond poorly to acute stress. Survival from severe burn injury is lowest in those with low muscle mass (Pereira, 2005).

The Recovery Process

Not only does muscle provide the protein necessary for recovery from trauma and acute illness, it also provides the strength key to the recovery process. Muscle strength provides a quicker return to daily activities and, therefore, a faster recovery process. Because trauma typically results in an acute loss of muscle, those with a pre-existing deficiency in muscle mass fare worse in the recovery process. And in those with pre-existing deficiency in muscle mass, trauma might push them beyond the point where complete recovery is unlikely. This could explain why many elders, after breaking a hip, may never walk again – some dying within a year. The elderly typically have low muscle mass to start.

Muscle and Cardiac Disease

People suffering congestive heart failure typically lose muscle mass; those with already low muscle mass face an uphill battle. Muscle provides the functional capacity necessary to begin a truly effective exercise routine to fight the progression of the disease, or to reverse it. Muscle also provides the metabolic support to control some of the factors that cause heart diseases, such as insulin resistance.

Muscle and Aging

Muscle and strength loss are associated with aging, and this loss has a devastating effect on the quality of life and, ultimately, survival. If left unchecked, this loss can accelerate and result in unkind conditions: premature frailty, likelihood of falls, and increased challenge in doing everyday things. The ultimate outcome is, therefore, a decreased quality of life, increased dependency, and the heart-breaking commitment to institutionalization.

The good news is that the rate of muscle loss during aging can be controlled and, in some cases, reversed. Possessing sufficient – or even a surplus of – muscle mass gives you a healthy reserve of muscle for the aging process. Also, studies show that people can build muscles at any age – well into the 90s. So even if you've entered your later years with low muscle mass, it's never too late to start building.

Muscle and Obesity

Energy expenditure in the body relies on three things: Caloric cost of eating, physical activities, and resting energy expenditure (the cost of simply keeping the body alive). While it's obvious that physical activities impact caloric expenditure, the energy cost of muscle metabolism is less appreciated in the prevention of obesity. As a component of resting energy expenditure, muscle metabolism is a constant source of calorie burning, and more relevant to this article is the fact that it can vary greatly: The more muscles you have, the greater the caloric cost. Even at rest.

Many experts claim that increasing muscle mass may not affect resting metabolic rate appreciably. While this is true, they ignore muscle's long-term effect on the prevention of obesity. Here's the deal: for every pound of muscle you possess, you burn 5 extra calories per day at rest. Of course, it's a measly amount

– that is, if you're merely analyzing only one pound of muscle in one day.

But, let's say you gain 10 pounds of muscles – which is not unreasonable. This additional ten pounds of muscle can burn 50 extra calories per day. Still not much? Well, of course not in one day. As fat is not accumulated in one day, we should not expect to burn it in one day. Let's look at what 50 extra calories add up to in one year: over 18,000 calories. So, if there is 3,500 calories in one pound of fat, then 18,000 calories means over 5 pounds of fat. In other words, you can burn over 5 pounds of fat in a year for doing absolutely nothing. In one decade, you would avoid putting on over 50 pounds of fat.

You get the concept, but it isn't the end of it. This extra muscle allows you to approach your exercises and daily activities with more vivacity, resulting in greater caloric expenditure. This not only burns more fat but also keeps us functionally young.

So, you can see that muscle has many functions outside of athletics. Muscle is for everyone. And I would love to see a world in which a woman ceases to apologize for having some muscle and for being strong, and one in which she no longer has the need to make it clear that she's "not into all that."

Less is More – Celebrate Your Muscle!

by Analisa Naldi

When you think of fat loss, you associate everything with lower numbers: fewer calories, less body weight and smaller clothes. It is not uncommon to forget that, while working towards altering your body composition and decreasing body fat, your lean muscle mass will likely increase. In this situation, less IS more. Less body fat and more lean muscle lead to more strength, more power production and, therefore,

more calories burned regularly.

Let's take a second to define some basics. Lean body mass describes all body tissues that are not fat and water (muscle, bone, connective tissues). An increase in lean body mass usually means muscular hypertrophy, which is an increase in the cross-sectional area of the muscle. The contractile components of the muscle (actin and myosin) increase in number yielding a slight increase in the size of the muscle.

Fat mass is the amount of body composition that is all fat. Fat mass is made up of essential fats (those that our body needs for basic physiological functioning) and non-essential fat (a direct result of taking in more calories than you are expending).

Keep thinking: Less IS more! While training to weigh less, I focused my objectives on squatting more weight, producing more power (increasing my Olympic-style weightlifting totals), and completing more pull-ups and push-ups consecutively. It is optimal for athletes involved in activities that require strength, power and muscular endurance to focus on increasing lean muscle and decreasing fat. Therefore, I am continuing to monitor my diet, so as to maintain my current body weight (73kg-74kg). I am currently training to achieve my Olympic Weightlifting goals and not doing any additional cardiovascular/aerobic workouts outside of my two-hour sessions with barbell club.

"Aren't you worried you're going to get fat?" I've been asked this a number of times since beginning my new weightlifting goals (which exclude aerobics) around New Year. I weigh the same (my body weight fluctuates between 0-3 lbs during the course of the day) as I did on New Year's Day and I haven't done a bit of "cardio" since December 29, 2007. I am currently being coached by our own Barbell Club Coach Rob, am 60 days into my training, and my body has

changed physiologically and aesthetically.

A typical workout starts with a general warm-up on the rowing machine, treadmill, or jump rope. This takes me anywhere from 5-10 minutes, depending on how cold it is. This is different from previous workouts in duration, intensity, and activity choice. I am not as aggressive in my warm-up due to the increased demands on my muscles during my actual workout. My warm-up is followed by overhead squats, which I do everyday since it's one of the most difficult movements for me to consistently do correctly. Workouts will consist of full snatch and/or clean and jerk, or their variations. High-volume days are cycled with heavy days, and there is always one "play day" during the week, which usually falls on a Friday. "Play day" is a day in which I do a plethora of non-weightlifting movements (pull-ups, push-ups, burpees, box jumps, lunges, etc) for 45-60 minutes to work out any soreness and keep my sanity.

My squat totals have all increased steadily over the last six weeks. I've set two more personal records in my Snatch and Clean and Jerk totals, which are due to a combination of strength gains and improved technique. Strength gains have become apparent in my daily performance. It is hard work, but rewarding because the improvements have been steady and realistic.

The aesthetic results have been entertaining and exciting. My body type (somewhere between a mesomorph and endomorph) is not naturally lean and muscular. A mesomorph is referred to as an "hourglass" figure with a higher percentage of muscle mass and higher rate of muscular development. An endomorph typically has a greater number of fat cells, wide waist, and larger bone structure than the average person.

Every little striation (muscular definition) that I can see is the direct result of hard workouts and monitored nutrition. The best part of doing

burpees is not only dropping to the ground and knowing that I have the upper body strength to pop up, but also seeing my deltoids and triceps pop out. My point here is that, while it is important to focus on your performance goals, it's okay to celebrate the small visual victories that accompany your success.

Don't be afraid of your muscles. You will not turn into a "large-and-in-charge" woman or man simply by gaining some muscle mass. You will not get "big and bulky" unless you consume an excessive amount of calories, decrease exercise to little to none, or begin a body-building training program. The key is to remember that muscle does not mean "big and bulky." Muscles indicate functional strength, healthier body composition, and improved athletic performance.

I've read a ton of studies that have shown the correlation between an increase in muscle mass and a decrease in body fat. Studies have shown high negative correlations between relative amounts of body fat and athletic performance. Wilmore and Costill (1994) discussed that, when an athlete moves the body through space, higher lean muscle mass and lower body fat is optimal for success. Based on my own workouts, burpees, pull-ups, squats, you name it, I agree.

I realize that there are psychological battles with the numbers, both on the scale and in the weight room. But, coming from somebody who has struggled with both, placing a greater focus on the latter definitely leads to more success. It is important to remember that your body weight may increase anywhere from 1-5lbs during the transition. But if these small weight gains occur while performance is improving, then you're moving in the right direction: improved body composition and aesthetics.

Now, after reading parts of my personal testimony, struggles, and muscle battles, do you believe that less IS more? Less body fat accompanies more lean muscle mass. More lean

muscle mass leads to improved athletic performance. Improved athletic performance leads to increased functional strength. Increased functional strength is directly applicable to life, daily activities, and overall healthier existence. This being said, why wouldn't you want to increase lean muscle mass if you can reap all of these benefits?

Reference: Wilmore, J.H. and D.L. Costill. Physiology of Sport and Exercise. Champaign, IL: Human Kinetics, 1994.

Nutrition for Muscle Mass by Scott Kolasinski

The quest for muscle mass is the mission of every bodybuilder and many young male athletes who are trying to put on those needed pounds to look massive in the mirror to impress women, the world and himself.

However, an even more important population that should be concerned with muscle mass is the general population. Whether you are in high school, out of college, a middle age, an athlete, a CEO or an elderly, you'll always benefit from additional muscle.

There are hundreds of examples throughout life that make additional muscle necessary, in some cases even be lifesaving.
So How Do You Eat to Get Muscled Up?

Eating for muscle is a gray area that I cannot give a 100%-with-certainty-prescription that will work for all body types and individuals at various fitness levels. There are many theories spinning from science that may be plausible, but trial and error are always necessary. Here, I want to keep it simple: I will give what the research suggests.

Protein Requirements

Some research suggests that protein should be 1.4-1.7 grams per kilogram of bodyweight per day (1) or as high as 2g/kg bodyweight per day in athletes (2). [That's 0.6 to 0.7 grams per pound of body weight or as high as 0.9 gram per pound of bodyweight.] The Recommended Daily Allowance of 0.8g/kg bodyweight per day protein is based on what is healthy for the average sedentary individual, which is not necessarily enough for athletes. It would be better to get more than enough protein rather than not enough when it comes to building muscle.

Choose protein sources from turkey, chicken, eggs, fish (although cold water fish have higher fat content, these are much needed healthy fats), lean cuts of beef, tofu, low fat cottage cheese.

Carbohydrate Requirements

Eat a diet rich in complex carbohydrates at a ratio of 5 – 7 g/kg bodyweight (2.5-3.5 g/lb bodyweight). Starchy foods such as pasta, wheat bread, whole grain cereals, brown rice, and potatoes should be kept at a minimum. Yams, sweet potatoes, squash and green vegetables should provide the majority of energy to fuel your activities. These foods are also a source of fiber, phytonutrients, vitamins and minerals.

Fat Requirements

Keep fat intake to 20 percent of your total calories, consisting primarily of essential and monounsaturated fats. Essential fatty acids are the type of fat that the body cannot create and are found in fish, flax seeds and walnuts. Other essential fats can come from olive or canola oils (uncooked), seeds and/or avocados.

For someone consuming 2,000 calories a day, the fat intake should be about 400 calories. This is equal to about 44 to 67 grams (each fat gram contains nine calories).

Fat is used as fuel for endurance, but it also aids in neural recovery. Keeping your fat intake to less than 15 percent may have a harmful effect by inhibiting absorption of vitamins that need to dissolve in fat, and this low amount has no effect on improving your body fat percentage.

While You Are Exercising

As previously alluded, the methods of muscle-building depend on body type, sex, age and current training status. However, more and more research is showing that what happens before, during and after the resistance training program is very critical for producing muscle mass.

According to the research, each of the following should be practiced before, during and after training:

- Try consuming 20g whey protein and 30 to 40 grams of carbohydrates 30 to 40 minutes prior to exercise.
- Sip carbohydrates during weight training (i.e. Cytomax).
- Immediately after, consume a protein shake with at least 20g whey-casein combo or drink 20 oz. of skim milk, fat free chocolate milk or Wheaties with skim-milk.
- Eat a whole-food meal one hour later.

Once you have applied these guidelines and are participating in an intense resistance-training program, your only other enemy will be consistency. A lack of consistency in training and/or a lack of consistency in your nutrition are always detrimental in achieving muscle mass. It is up to you to prevent this from happening and to plan your schedule accordingly.

As your training and nutrition support each other, you will realize that Rome was not built in a day. But it is within that process that you will truly savor and enjoy the rewards of your hard work. The work is worth it, just like your time

was worth it.

There is no age limit to building muscle. All ages and all people benefit from muscle mass, even to the point of life or death. Gaining muscle will require dedication, but it is well worth it. Go put some meat on those bones.

Until next time...

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2) Tipton, K. D., R. R. Wolfe. Protein and amino acids for athletes. J Sports Sci. Jan; 22(1):65-79. 2004.

Psychological Benefits of Muscle Gain

by Herm Blancaflor

Imagine a bodybuilder: Muscle upon muscle built to perfection, proportioned, oiled and bulging onstage. The contest-ready bodybuilder has pushed his muscular development and his body to the limits of his genetics. This is truly a genetic freak show of human extremes.

Not all of us want to look like Arnold, and certainly not all of us want to gain weight. I would venture to say most people in our culture would be better off losing weight. But no matter what goal you have, weight-training-induced muscular gain is psychologically beneficial, no matter whom you are.

It is well documented that adding muscle and strength benefits you in many ways physically. They include increases in bone density, stronger connective tissue, and added functional strength for common daily tasks, such as carrying in the groceries or climbing a flight of stairs.

Granted, there are a very few sports in which ADDING muscle mass is not only undesirable but also disadvantageous: elite marathon runners and jockeys must carry lower overall body weight for their performance. However, these examples are for function only, and even these individuals may benefit psychologically from muscular gain after their competitive days are over.

"But I don't want to have huge arms!" Don't worry. You won't get to that point by accident. For some reason, it is a widespread preconceived notion amongst new trainees (and especially women) that as soon as one starts lifting weights, some dramatic phenomenon happens and the new trainee starts building muscle rapidly and uncontrollably. As much as many aspiring bodybuilders would love this to happen, it simply does not happen. I consider myself possessing a genetic predisposition to gain muscle mass relatively fast compared to the general population, and have gained muscle faster than many of my contemporaries. But I still have to consume large amounts of specific "bodybuilding foods," and sleep and train like a bodybuilder for almost every day. I've been trying extremely hard to gain extra muscle for the past 25 years, but my arms still fit into most jackets and sleeves.

So what would adding muscle do for you? What benefits would come about? Would this newfound muscle add benefit to your life outside of the power and strength sports? My answer is a resounding yes! The psychological benefits of added muscle to the average adult become quite obvious to the individual who is experiencing or has experienced it.

Several studies have been done on this subject. In 1982, one of these studies suggested that the more weight training done by the individual, the more self-confident and satisfied they tended to be overall. Similarly, the males who indicated that they had trained relatively often with

weights in the past showed the most positive attitudes toward their body parts and processes. They also tended to be significantly more sociable, impulsive, and outgoing than the males who reported relatively less experience training with weights. From the results of the study, increased credence must be given to the assertion that weight training can play a significant part in the mental health and wellbeing of males. (1)

Another similar study was conducted in the same year by the same researcher. 60 college males were enrolled in a weight training class and a history class. The control group was a group of 45 other males that were only enrolled in the history class and not lifting weights. According to the study results, regular training with weights tends to significantly bolster feelings of personal pride, confidence, and self-worth, but it does not tend to place the self at an elevated status in relation to kin and friends. Similarly, feelings of being a "good" or a "bad" person and relationship to God and self-satisfaction do not seem to be significantly influenced by weight training when compared to non-weight trainers. (2)

In yet another study 4 years later, 100 women ages 17 to 26 and 40 to 49 were assigned by random drawing to a weight lifting group or to the control group. While the experimental and control groups had similar psychological profiles on pretests, the profiles of the two groups were significantly different on the posttest on self-concept measures used in this study. These results indicate that both the young and mature experimental groups viewed their physical bodies more positively and that their perceptions about themselves were more positive. (3)

The last study I bring to the table is one that compared the effects of weight training versus running on self-confidence. Not surprisingly, the group of women who exhibited the largest gain in self-esteem was the group that gained an

average of 68% in body strength and expressed significant losses in certain bodily areas. Although 35% of the running group felt both physically and psychologically better, 83% of the weight-training group felt the same way. (4)

So there you have it. There is possibly no better way to enhance one's self confidence than the added muscle gain a weight training program permits. If you haven't been enjoying the benefits from added mass from your routine and diet, what are you waiting for?

1. Tucker, Larry A. "Weight Training Experience and Psychological Well-Being". *Perceptual and Motor Skills*. 1982. Vol.55 Pgs. 553-554.

2. Tucker, Larry A. "Effect of a Weight -Training Program on the Self-Concepts of College Males". *Perceptual and Motor Skills*. 1982. Vol.54 Pgs. 1055-1061.

3. Brown, Rebecca D. and Harrison, Joyce M. "The Effects of a Strength Training Program on the Strength and Self-Concept of Two Female Age Groups". *Research Quarterly for Exercise and Sport*. 1986. Vol.57 No.4 Pgs. 315-320.

4. Trujillo, C. "Effects of weight training and running exercise intervention programs on the self-esteem of college women". *International Journal of Sports Psychology*. 1983. Vol.14 Pgs. 162-173

Client of the Month, March 08: Ruth Patterson

Age: 54

FIT member since: February 2004

What are/were your short and long terms goals coming here to FIT?

Have you obtained them?

Short term goals:

- * Consistency in exercising 5 days a week-yes
- * Better arm definition-yes
- *Weight loss - no (but it is the food part that is the problem, not the exercise!)

Long term goals:

- * Increase core strength and overall fitness
- *More well rounded exercise program than just hiking 3 times per week.
- *I think I am obtaining my long term goals.

What do you enjoy about FIT?

"I like the great atmosphere, the positive attitude of the trainers and the sense of community involvement and service to others; I also love Saturday mornings - I marvel at the weightlifting group and like their background noise! I've also enjoyed the interaction with other clients."

What exercises do you like and dislike?

Likes: rowing, pushups, dead lifts, most arm exercises

Dislikes: kettle bell swings, abdominal exercises, exercises involving balance

What is the key to your success from training here at FIT?

"Corny as it sounds, Danielle is a real inspiration.

She is always at the gym, she loves what she does and she doesn't laugh at me when I lose my balance doing things! She has the right balance of making me want to push myself without making me feel like I can't do something. She brings out my competitive nature (for example, getting rowing times) in a positive way to make me do things I didn't think I could."

Celebrations:

100m Row = 22.3 seconds (2/12/08)

Push Ups (strict) = 15 x 4

Pull Ups (neutral grip w/ assistance) = hole 9/4 x 3

Back Squat = 115lbs

Deadlift = 115lbs

Key to the Ruth's success (from Danielle):

Ruth began training with me in June of 2007.

Ruth was eager to accomplish the goals she had set. She's a very hard worker who has been consistent with her training and it shows. She trains with me once a week, hikes two to three times a week, and is at FIT almost every Saturday. Ruth has increased her muscular strength and endurance. She is executing strict push ups, back squatting 115lbs, dead lifting 115 lbs, and has an impressive time completing the 100m sprint on the rower. Ruth is a joy to be around and is on her way to a healthier lifestyle. Congratulations Ruth!

Kid Spotlight, March 08

Name: Spencer Elman

Age: 14

Date you started working out at FITBUDDIES:
October 2006.

Why did you start working out at FIT? To become fit.

What is your proudest moment at FIT?
Completing "Fight Gone Bad."

What is your favorite exercise? Rowing.

What is your least favorite exercise or movement? Back Squats with heavy weights.

What is one thing you've learned from working out at FIT? How to Jump Row.

Spencer says, "Thank you Jen for being our trainer twice a week. Jen is so nice to me and all the FITBuddies."

Spencer has been a part of FITBuddies since October 2006 and everyday he shows up to FIT with a smile on his face, ready to go. After a year and a half, he is much more aware of his body and has had significant strength gains. Spencer loves "learning something new" and always works to the best of his ability. Thanks Spencer for being such a great addition to FITBuddies and FIT.

For More Muscle, Recover Fast with Massage

by Angelo Dela Cruz

One of the most overlooked keys in strategically building lean body mass is providing the body with proper recuperation. In addition to appropriate nutrition and the right type and amount of exercise, it is essential to have a program of rest and recovery to help build a stronger body. Restorative massage may be a powerful tool in boosting your body's ability to recover from muscle-building workouts. The more demand that is placed on your body, the more significant it is to establish massage as part of your workout and recovery regimen.

Let's take a quick look at a few physiological responses and consequences that occur when you challenge your body with exercise:

- Microtraumas ("microtears") in your muscle and connective tissues lead to inflammation causing adhesions and decreased circulation, all contributing to soreness, stiffness, and perhaps less willingness to workout or a decrease in performance during the next workout
- Energy stores in your muscles are expended. Of course, eating nutrient dense foods will help to replenish, but it may be more challenging for oxygen and nutrition to get into your muscle cells when blood circulation is sluggish due to adhesions
- Your nervous system shifts into stimulation mode. This is excellent to get your heart beating faster and muscles to work harder, however, your body will increase the production of cortisol, the "stress" hormone. This benefits the body by acting as an anti-inflammatory agent, but sustained elevation of this substance after exercise leads to the breakdown of muscle tissue.

Massage from a skilled therapist can help you

overcome these obstacles. Flushing massage strokes in the areas of microtrauma will aid in reducing the inflammatory response and help minimize the pain associated with soreness. Other specific massage techniques can lessen the formation of adhesions and also eliminate them. With fewer adhesions in your tissue, you will be able to move more freely and efficiently. Furthermore, the much needed oxygen and replenishing nutrients will have an easier time getting into your cells and the metabolic wastes will more readily be eliminated.

It is also important to bring the nervous system back to a calmer state after a workout . This tends to happen automatically, but if you are chronically overstressed physically, mentally, or emotionally, you can use a helping hand to alleviate the negative effects of cortisol. By taking advantage of the relaxing and calming effect of massage, your nervous system can quickly return to a more balanced state promoting muscle growth, quality sleep, and an overall sense of well-being.

When you increase the amount of time your body is able to recover, you increase the ability for your body to build muscle. And the faster your body is able to recover from strenuous activity, the faster you will be able to reach your goals of fitness and vitality. Massage can definitely help you achieve new gains in your fitness program by keeping your muscles supple and healthy and creating a physiological environment enabling your body to thrive. Ask your massage therapist how they can tailor your sessions to fit your personal needs and goals.

Angelo Dela Cruz is an Orthopedic Bodywork Specialist, working at FIT. You can also visit his website:

<http://www.kineticbodywork.com>

FITBuddies

by Jen Pleimann

It is 4:20pm on Monday and I'm in the back room getting ready for FITBuddies.

"Hi Jen!"

It is like clockwork. I can see Spencer walking thru the front doors of FIT. He has barely made it inside as he calls my name across the gym. I smile as I hear him say hello to all the trainers on his way back to change.

Many of you have been at FIT on a Monday or Wednesday and have seen FITBuddies in action. For those of you who have not had the pleasure of meeting these special individuals, I would like to introduce you to FITBuddies.

FITBuddies is a small training group for special individuals, predominantly Down Syndrome, who meet every Monday and Wednesday from 4:30 to 5:30. Currently, I am working with four individuals, ages thirteen to twenty two, three of which have been together now for a year and a half.

I am frequently asked questions about FITBuddies concerning the purpose of the program, the physical capability of these individuals, and the progress and changes I have seen. This month, as FIT highlights the FIT Buddies' program and these special individuals my goal is to answer these questions and share what I experience on a 'typical' Monday or Wednesday from 4:30-5:30pm.

As I walk up front, I see Jeremy reading the sports page and Spencer waving his arms at me.

"Hi Jen! Time for FITBuddies! Did you watch the Shark's game last night? Jen, there's one, two, three FITBuddies so far."

Before I have a chance to answer his question, Xenia comes dancing thru the front doors. She runs over and gives me the world's biggest hug.

"It's my little rock star!!" I say to her as I return the hug.

"I not a rock star! I Xenia!!" She responds, giggling.

"Jen, its 4:31. There's one... two... three... FOUR FITBuddies now. We're late! Can we get started now?" Spencer says.

How it all started. After several years of volunteering, working as a behavioral therapist, and working as a personal attendant for individuals with a variety of special needs, I repeatedly saw a lack of physical activity in a population that could greatly benefit from it. There is a vast amount of literature stressing the importance of physical activity for those with Down Syndrome to help improve "hypermobility of the joints, obesity rates (as it is prevalent in this population), an underdeveloped respiratory and cardiovascular system, and poor balance and perceptual difficulties"(Rimmer, 1993, NCPAD); yet, there are very few resources available to them.

In the field of special education, there are a number of great therapist, special ed teachers, and parents who are constantly trying to implement some form of structured physical activity; they see the need and potential yet lack the knowledge in the area of health and fitness. In the field of health and fitness, there are a number of knowledgeable trainers and coaches

but many are not trained to work with this special population or are possibly unaware of their potential. Kenneth Pitetti states in "What is Known about Physical Fitness and Down Syndrome":

"If given the time to adjust to a testing environment, the staff, and the time to practice test protocols or exercise procedures, persons with DS (Down Syndrome) have sufficient motor skills and intellectual capacity to adequately perform these activities."

In other words, if given the OPPORTUNITY individuals with Down Syndrome have the ABILITY to participate in structured physical activity if those implementing the program are willing to take the TIME. FITBuddies was started to create this OPPORTUNITY.

"Time to get started. Warm up is on the board," I tell them.

"500 meter row. My faavorite." says Spencer.
"Jen, can I sing my rowing song?"

He begins chanting before I can even answer, "legs, arms, arms, legs. Legs, arms, arms, legs."

"Xenia, let's try to go a little faster please."

"But Jen, I am faster!!" She replies.

"Nice work Jeremy! Keep going!!" I cheer them all on.

"Aw, thanks Jen, thanks for your nice words." Jeremy stops mid pull to thank me.

They then begin their body weight squats as Spencer collapses to the dynamax ball, Jeremy begins performing a quarter of his normal squat (and counting, as always, at the top of his lunges) and Xenia is standing with her hands

behind her head, elbow covering her face exclaiming how "this is too hard!!" After six months, I thought we had perfected the squat but I take a deep breath and regroup.

"OK, everybody STOP. Jeremy, show me your REAL squat please. Spencer, cross your arms, place your hands on your shoulders and do not take your eyes off the wall."

I walk over to Xenia; we do a little dance to get her laughing and I hold her hands as she does one squat with me.

"I did it. I did it!!" She exclaims as she begins laughing at my dance moves. "You so silly, Jen."

After a year and a half, some parts of FITBuddies are completely predictable and at times I have no idea what to expect. I know I will get the updates on the Sharks or Giants from Spencer every session. Jeremy will fill me in on life as a "working man" at Starbucks and consistently reminds me how hard he likes to work at FITBuddies. I can guarantee I will receive at least fifteen hugs in an hour from Xenia. I can almost always count on hearing how excited they are to row or run because "it's their faaavorite!" Xenia will tell me at least once, "It's too hard" and then as we do her first rep together will yell, "I did it, I did it!" Most importantly, the three of them ALWAYS walk through the door with a smile on their faces, ready to go and at the end of the hour tell me they can't wait until next time.

This predictability and consistency is what makes it easy to work through every unpredictable moment: When asked to perform a body weight squat (an exercise we had perfected after six months), the three look like they are doing it for the first time. Give them common cues, such as "keep your head up," "chest up," "heels on the ground," and you'll often see them drop their

head, round their back and lean forward on their toes. I have to be creative to increase their awareness of their body and their movements. Give them familiar cues, though, and surely they're back on track.

Since day one, these three have challenged my training in a variety of ways. It has been a process of learning to control the chaos as needed, and letting it be chaotic when appropriately safe. It involves training a group while tending to very individual needs. For example, Spencer has to "stand up tall" every time he mentions the Sharks or the Giants, as we work on his posture. Jeremy does not like to be corrected and will pretend he understands what I have said even when he is extremely confused. Visuals always work better, unless, of course, you are cheering him on. Xenia needs constant appraisal and slight humorous distractions. This may involve holding her hand and doing a rep or two with her while, between sets, dancing with her as we sing along to Britney Spears.

At the end of the day, the one thing that has helped FITBuddies tackle every obstacle and given them the ABILITY to perform most of the exercises you and I do is TIME. I am often told "you must have all the patience in the world to work with individuals with special needs." If this is referring to the ability to deal with individuals who 100% WANT to be able to do what I ask and who have the ABILITY but simply are not able to process it as quickly as others, then yes, I guess I am patient. In my opinion, this is easy. I don't care if it took us three months to perfect the body weight squat, six months to jump rope, or a year to learn the snatch balance because these individuals have proven if given the TIME they absolutely have the ABILITY.

"Water Break!"

Jeremy spots 'Coach Rob' and heads over to give him a high five and give him trouble for the day.

"Jeremy, shouldn't you be working. Why are you resting" Coach Rob asks Jeremy

"Get real Coach Rob. I'm a working man and I'm on a break!!"

Xenia then comes in to join the fun. "Beauty and the Beast! Beauty and the Beast!" She chants as she starts hysterically laughing (referring to Coach Rob and Serena).

Spencer runs over to give his high five as well. "Hi Rob. Did you watch the Sharks game last night?"

From day one, Thom, Tracey and all the trainers at FIT have been extremely supportive of FITBuddies. Because of their support, FIT has become much more than a gym to Xenia, Spencer, and Jeremy. It is a place where they can go and have fun. A place where they can socialize with peers, fellow trainers and other clients and everyone is welcoming. It is a place where they can go and receive a structured physical activity program in a fun, safe and effective manner. FIT is a place where they can be treated like everyone else.

It's 5:30pm and time to go. As I start to put things away, I catch Jeremy flexing his arms as he checks himself out in the mirror.

"Looking good Jeremy," I tell him as I give him a playful nudge.

He looks up at me, smiles and says, "Jen, You touch my heart."

Xenia has now positioned herself in front of the mirror. As she puts her hands on her hips she turns from one side to the next. The next thing I know she is running at me screaming, "Jen, just look at me, I look amazing!!"

Once again, I get the world's biggest hug from

Spencer. "Bye, Jen, GREAT workout! I just saw you MONDAY, now I'll see you WEDNESDAY and you will get to see my mom on FRIDAY!"

The three of them give each other high fives and hugs and walk out the door leaving me smiling from ear to ear.

FITBuddies was started to create an OPPORTUNITY for special individuals who deserve the same resources in terms of health and fitness as the rest of us. It is about noticing that these individuals have the ABILITY to participate in a structured program similar to yours and mine. When provided with the opportunity and the appropriate guidance they will learn, they will grow, and they will CHANGE. FITBuddies is a program that "trains the athlete in everyBUDDY."

Ref: Kenneth H. Pitetti, Ph.D., FACSM. What is Known about Physical Fitness and Down Syndrome.

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