



HEALTH & FITNESS EXPO



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Challenge of the Week



Okay, are you ready again? Next Challenge--The first person to email me (Yusef@FitSolution.org) the most "sound"

How Do We Train to Lose Belly Fat?

Today we will give you some insight into the "million dollar" belly fat question. Read our article below. Please also take part in this week's challenge (see side panel) where the prizes will include jewelry from Oxford Jewelers and a gift certificate from Eggspectations. We have already received some challenger answers---but it is not too late. The last day to submit is this Saturday. We will announce the winner next week.

We still need to know how we can specifically help you better with Fitness and Nutrition so please complete all (3) surveys on the Challenge Webpage (see left side panel) if you have not already done so. Also, be sure to instruct your teammates on how to properly enroll in the challenge (see left side panel below).

approach to a health & fitness program (specifically a beginner Anatomical Adaptation Training Program) will receive a gold diamond cut, necklace from Oxford Jewelers and a gift certificate from Eggspectations. Here are the things we want to know (try to be brief and "to the point"):

- Cardio Program (How many minutes of cardio each day?, How many days per week? What intensities?, What types of exercise? etc.)
- Strength Program (How many exercises per workout? How many sets and repetitions? How many exercise sessions per week? How long should the rest periods be? What techniques and philosophies should be used? etc.)
- Stretching Program (How long should you hold the average stretch? How many sessions per day? How many days per week? etc.)
- Sleep Program (How many hour per day? What bedtime techniques help promote better quality sleep? etc.)

We look forward to hearing from you!
Turn-in your answers by Sunday, October 26th.

New Challenge Contributors



[Oxford Jewelers](#)

[Willoughby's Market](#)

[Taste of Morocco](#)

[Metamorphosis Boutique](#)

[1 Cut Above](#)

[Eggspectations](#)

[Starbucks](#)

[Mizz Ashley Hair Styling \(at About Beauty Salon\)](#)

[GymSource Fitness Equipment Store](#)

The focus topics today include:

Losing Belly Fat
The Metabolism Breakdown
Pre and Post Workout Meals

Ask the Expert (Nutrition and Fitness)
Exercise of the Week

Don't forget to check the website for announcements and updates. We will be archiving all of the previous newsletters for your convenience in referencing past fitness and nutrition articles.

Yours in Health,

Yusef R. Battle, ACSM RCEP
 The Fit Solution, Founder
 American College of Sports Medicine(ACSM)
 Registered Clinical Exercise Physiologist (RCEP)

Losing Belly Fat

It is time to answer the "million dollar" question. Let's start with a few strategies we have already mentioned in past newsletters. When working to reduce belly fat one must never underestimate the impact of stress. During stressful moments your body releases hormones for "fight or flight." In order to provide energy for these actions the body releases stored energy into the bloodstream by way of glycogen stores (or stored carbs) in the muscle and liver. The problem is that, when stressed, most of us are not necessarily moving. So this unused energy has got to go somewhere. Unfortunately, that somewhere is often into the body's fat stores. A substance called cortisol is also released during stress. Research shows a strong correlation between cortisol and storage of excess body fat around the stomach region. So the message is---practice strategies to reduce stress at the immediate moment it occurs. Here are some ideas:

- Prayer
- Deep Breathing
- Self-Massage
- A timely positive thought
- Laughter (works like good medicine)
- Focusing on the specific relaxation of your muscles---one group at a time

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Now, the obvious---one must pay attention to the total amount of fat consumed in a day as well as "total calories in" versus calories burned. Most registered dieticians recommend only consuming between 20-25% of the diet as fat if the goal is to lose excess body fat. The last thing you want to do is be consistent with exercising and continue to refill the body fat stores you are trying to reduce each day. Read the The Metabolism Breakdown article below to start practicing eating to your individual metabolism. Another thing to remember is "a fat is a fat is a fat." This means that even when you choose to eat the healthiest fats (i.e omega 3's, polyunsaturated etc.) they are still the easiest substances to be stored as excess fat in the body.

The University of Virginia recently published a very informative study through the American College of Sports Medicine that demonstrated an effective strategy to lose belly fat. This particular study focused on exercise results on post menopausal women. Now, before you start to say that this does not relate to you, understand that post menopausal women often have the most difficult time reducing excess body fat. So if a strategy works for this group, you can be more positive that it will work for you. This study specifically focused on which type of "cardio" training was best for losing total abdominal fat, visceral abdominal fat (fat around the deep organs etc.), subcutaneous abdominal fat (fat underneath the skin), mid-thigh fat and reducing other factors related to metabolic syndrome (i.e. blood pressure, blood triglyceride level, HDL cholesterol level, fasting blood glucose etc.). The study compared the results of individuals who accomplished burning a total of 2,000 calories per week through high intensity "cardio" workouts versus low intensity "cardio" workouts. What was the verdict? High intensity cardio significantly reduced abdominal fat, and mid thigh fat---much more that low intensity "cardio." With that being said, here is the training regiment utilized in the study for you to glean from:

Participants completed a 16-week supervised moderate to high-intensity exercise intervention. Participants were progressed to five exercise sessions (days) per week by week 5. Three days per week (e.g. M, W, F) participants exercised at an intensity midway between the LT (lactate threshold)

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and the VO₂ peak(maximal exercise intensity capacity---this is usually perceived as a personal rating of 15-17 on an exertion chart up to 20---I will explain below). On the remaining 2 days (e.g. T, Th), the participants exercised at or below their LT (equivalent to a rating of 10-12 on an exertion chart)

Okay, so now we have a brief understanding of the techniques used in the "belly fat" study. Let's go over a few principles that will further help you understand how to make your individual "cardio" programs better. First of all, the concept lactate threshold (also called anaerobic threshold) is when you increase your exercise intensity (by speed walking, jogging, running etc.) to the point where your body doesn't have time rely upon oxygen to create energy to do the work (thus the meaning anaerobic). The body forms a substance called lactic acid that builds up in the blood stream when you exercise at this type of rate. Exercising at lower intensities (or aerobic exercise) allows time to utilize oxygen for the work and easily clears out any hint of lactic acid out of the bloodstream before it starts to accumulate.

When planning to use a higher intensity "cardio" program to lose excess body fat, the study shows that one must, first of all, gradually transition to this type of work intensity (it took 5 weeks). Also, you want to have a clear understanding of how to properly gauge your exercising intensity. You've seen me mention in previous paragraphs numbers that rate exertion (e.g. 10-12 and 15-17). It is important to practice properly gauging because studies show that this is a simple, yet effective, way to measure proper training levels without measuring heart rate or doing any fancy exercise testing. I have included a copy of the Borg's Rate of Perceived Exertion Chart below so you can practice while you workout. Try it out and let us know how you are doing on the blog.

Borg Rate of Perceived Exertion

6 No Exertion

7 Extremely Light

8



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Exercise of the Week



Bench Dips

I can not talk about important exercise without mentioning the "upper body squat." The dip movement effectively works the chest, anterior shoulder, and tricep muscles of the upper body. The great thing about the dip is that it can be done almost anywhere. As long as you have a chair or supportive ledge at the appropriate height ---you will be just fine. Start the movement with your feet flat on the floor and your palms flat on the edge of the chair or ledge. Your palms should be a little wider than the width of your hips. With your weight on your palms, bend your elbows and lower your body until your elbows are about 90 degrees (going too low in the movement can often put unnecessary stress on the shoulder joint). Complete this

9 Very Light

10

11 Light

12

13 Somewhat Hard

14

15 Hard (Heavy)

16

17 Very Hard

18

19 Extremely Hard

20 Maximal



Pre Workout Meals

By Yusef Battle, RCEP and Mark Strasser M.S. CSCS

- Maintaining your strength and energy level is essential when training. The food you eat is a big factor on how you perform.
- During exercise individuals primarily rely on pre-existing glycogen stores (i.e. carbs stored in the muscles and liver) and fat stores. If your pre-workout meal is eaten at the proper time then you will be assured that your glycogen stores are full and this will optimize performance. Liquid meals can also be an advantage by digesting more rapidly than solid foods as well as provide hydration. Liquid meals can be eaten closer to workouts because they are emptied from the stomach quickly.
- Pre-workout snacks within 1 hour of a workout or practice can be more beneficial to individuals that exercise longer than 60 minutes.

movement while keeping the lower back close to the edge of the chair or ledge. Then push the upper body back up to the starting position. Lower the body in approximately 3-4 seconds and push up in about 1 second.

Breathing

You can breathe inward sometime inbetween the starting position and lowering the elbows to 90 degrees. After the push (about 2/3rd's of the movement upward) you should let your breath out.

Ask the Expert

Registered Dietician



Tia Jeffery, RD, MS

How to Join The Challenge

Get Pre-Tested at a Fit Solution event (see web calendar updates). Includes free body fat analysis, weigh-in and BMI

Complete (3) mandatory online surveys on the Challenge Blog Sites

www.FitnessChallengeMD.com or www.FitnessChallengeDC.com or

- It is important to choose primarily carbohydrates before a workout because they are quickly digested, and readily available for fuel.
- Drink adequate amounts of fluid (avoid dairy). The American College of Sports Medicine recommends 17 ounces of fluid two hours before exercise, as well as enough fluid during exercise to replace the water lost through perspiration. A rule of thumb is to drink enough water to urinate clear prior to a workout. For the first hour of aerobic exercise use water only. Use electro-light replacement drinks after the first hour of exercising.
- Use caution with foods that have a high sugar content (such as soft drinks and candy). Since athletes' metabolism is higher than the average person they may experience a drop in blood sugar following consumption, which can result in light-headedness or fatigue and loss in performance.
- Here are some guidelines for when to fuel prior to a workout (amount will also vary with the size of the individual):

Hours Before Workout	Meal Type	Calories
3-5 hours	Large meal	300-500
2-3 hours	Small meal	200-300
1-2 hours	Liquid meal	100-200
.5-1 hour	Snack	50-100

*With intense exercise your body shifts 80 percent of its blood supply to the muscles in use. This shift deprives the stomach of the blood needed to digest food. This slows digestion and may cause an uncomfortable feeling in the stomach because of undigested food that is still present. A meal that is high in calories will take longer to digest than a lighter snack. It is suggested a three to four hour delay between high calorie meals and intense exercise.

Post Workout Meals

By Yusef Battle, ACSM RCEP

- Should always occur no more than 30-minutes after your workout. We call this the "30-Minute Window."
- Your muscles are like sponges after a workout. They will be ready to absorb

on the Challenge Web Page at
www.FitSolution.org/Fit.html

and Work on recruiting (3) challenge
 teammates

Tell a friend (it's free)



[Click Here Anatomical Adaptation
 Phase Sample Workout](#)



Ask the Expert

Exercise Physiologist



Yusef R. Battle, ACSM
 RCEP

The Fit Solution Client stated:

Challenger #1
**What are the best exercises for
 arthritis in the knees?**

anything you feed them. This is the best
 time to eat quality nutrients.

- Know that vigorous exercise (particularly strength training) can produce potentially harmful "free radicals." Therefore it is important to have foods that contain antioxidants in your post workout meal as well as consistently in your normal diet (i.e. blueberries, strawberries etc.)
- Replacing your spent energy stores in the muscle and liver (or glycogen) is very important. It can affect how quickly you recover and the quality of your future results. Use whole grain foods such as brown rice, whole wheat pasta, whole grain bread etc. *However, if there ever is a time to eat more simple carbs as a part of your meal after a workout would be the best time. Simple carbs raise the insulin levels more quickly. Some experienced trainers use this post workout body environment to help foster muscle growth. Check with your physician first---this advice is not for everyone.
- Always include quality protein sources in your post workout meal as well. For non-vegetarians, you can get all of your required amino acids in a piece of lean meat or egg whites. Vegetarians should strive to eat foods from the grain, legume and seed categories. The body will make it's own complete proteins if these foods are consumed within a 24-hour period.
- Research has shown progress in eating a carbohydrate-to-protein ratio of 2:1, 3:1 or 4:1. For example, eating 30 grams of carbohydrates and 15 grams of protein would be a 2:1 ratio
- Get into a habit of weighing yourself before and after your workout. For every pound of sweat loss drink 2 cups of water. If you are at a water fountain or drinking from a bottle, 2 cups equals 16 gulps.

Challenger #2

Should I exercise when my knees or foot hurts? Am I causing more damage to them if I exercise?

Yusef Battle, RCEP:

Since these questions are similar I will answer them together.

Arthritis and Rheumatoid disease typically affect almost 14% of Americans and cause muscle weakness, fatigue, and pain, stiffness, and swelling in joints and other supporting structures of the body. The American College of Sports Medicine makes the following recommendations for an exercise plan:

- Cardio Training 3-5 days/week for 20-60 minutes (beginners can start with 5-10 minutes and build) at a RPE of 12-16 (see Borg Chart in article above to the right)
- Strength Training 2-3 days/wk 8-10 exercises (include all major muscle groups at least 1 set of 3-20 reps to volitional fatigue (19-20 RPE) or stop 2-3 reps before volitional fatigue (16 RPE). Never start with heavy weights.
- Flexibility Minimal-3 days/wk Ideal is 5-7 days/wk. Hold each stretch 15-30 seconds 2-4 sets for all major muscle groups. Try to do this 1-2 times daily.
- You want to stop your exercising if you have unusual or persistent



Join The Fit Solution this Saturday for the **American Diabetic Association and Eli Lilly Foundation** sponsored Fight Against Diabetes Wellness Initiative with special guest artist (and Celebrity Fit Club star) **Angie Stone**. We will be doing free fitness pre-testing for anyone that has not properly enrolled in the 17-Week Challenge. Please let your friends colleagues and family know. Angie Stone will be performing at approximately 12 noon.

When:

Saturday, October 25th
10:00 AM-3:00 PM

Where:

Greater Mount Calvary Holy Church
610 Rhode Island Avenue, NE
Washington, DC

Metabolism Breakdown

This week's tip is to Eat 5-6 Small, Healthy Meals Spaced 2-3 Hours Apart (eating frequently can also be called "grazing"). You are probably thinking...how in the world am I supposed to do this? Well, the first thing you want to do is understand what is happening in the body. Just as I mentioned in a previous newsletter when I urged you to never skip breakfast...you always want to let your body know that energy is always available. When you do not, your body will turn on it's "defense alarms" and make it

fatigue, increased weakness, decreased range of motion, increased joint swelling, and continued pain that lasts more than 1-hour after exercise.

- Avoid vigorous, highly repetitive exercise with unstable joints, overstretching and hypermobility and morning exercise with rheumatoid arthritis because of significant morning stiffness.

If you are experiencing knee and/or foot pain the first thing you must do is get it assessed by a physician specialist. We can do more to help alleviate pain and speed the healing process when we are aware of whether there is still existing swelling and inflammation---and of the damaged, muscle, bone, tendons and/or ligaments. If this initial inflammation etc. exists and the injury is new, you could very well be in what is called the "acute stage" of the injury. Oftentimes, prescribed anti-inflammatory, meds etc., ice and other clinical modalities/treatments are used by your medical professionals in this stage to decrease initial shock and swelling so that the injury can be properly rehabilitated. Physical therapists are definitely recommended to be used during the initial injury stages.

If you have an existing injury that is not a new (or recently over aggravated) injury, then it is considered to be a "chronic injury." When deciding how to

easier to store fat.

Eating 5-6 meals without knowing how to control portion size can also be a problem when trying to cut excess body fat. That is why it is a good idea to get a Resting Metabolism Test. Measuring your oxygen consumption (through indirect calorimetry) is the "Gold Standard" for figuring out how much you should eat each day. If you do not have access to a metabolism test you could start with a basic equation (i.e the Harris-Benedict equation). Just keep in mind that using the equation is an "educated guess" and will require some guess work as you make adjustments as the weeks go by.

These are the factors that go into figuring how much you should eat daily:

- **Your BMR (Basal Metabolic Rate) or RMR (Resting Metabolic Rate)** ---this measurement tells you how many calories your body requires each day to provide for normal functioning of our organs and body processes or, in plain words, the energy we need just to exist
- **Your ADL's (Activities of Daily Living)** These are the calories you burn through your normal daily movement
- **Your SDA's (Specific Dynamic Actions of food)** These are the calories your burn daily processing, absorbing, digesting and releasing heat from food.
- **Exercise Expenditure** is the amount of calories you burn through Strength Training and Cardiovascular workouts each day

Let's use the Harris-Benedict equation to get started figuring out your BMR.

exercise with a chronic injury, use these tips:

- Avoid impact exercises that involve jumping, and excess weight bearing when the injury is aggravated. Swimming and/or water aerobics and weight training are ideal exercises to provide a combination of cardiovascular and strength developing benefits without overstressing the joints.
- Particularly with foot and knee injuries it is wise strategy to build hip and core strength as well increase overall hip and leg flexibility. Your body has a "natural flow" that joints and muscles are designed to move in. We call this the body's kinetic chain. Injuries, muscle tightness, and weaknesses cause this kinetic chain to be disturbed and can lead to future injuries. Two important concepts to understand are Synergistic Dominance (SD) and Reciprocal Inhibition (RI). SD happens when you have muscle groups that have similar functions but the smaller muscle of the group tries to do most of the work while the larger ones are not doing as much as they should (i.e. lower back, glutes and part of the hamstring do similar

Women: $BMR = 655 + (4.35 \times \text{weight in pounds}) + (4.7 \times \text{height in inches}) - (4.7 \times \text{age in years})$

Men: $BMR = 66 + (6.23 \times \text{weight in pounds}) + (12.7 \times \text{height in inches}) - (6.8 \times \text{age in year})$

Harris Benedict Formula Final Step

To determine your total daily calorie needs, multiply your BMR by the appropriate activity factor, as follows:

- If you are sedentary (little or no exercise) : Calorie-Calculation = $BMR \times 1.2$
- If you are lightly active (light exercise/sports 1-3 days/week) : Calorie-Calculation = $BMR \times 1.375$
- If you are moderately active (moderate exercise/sports 3-5 days/week) : Calorie-Calculation = $BMR \times 1.55$
- If you are very active (hard exercise/sports 6-7 days a week) : Calorie-Calculation = $BMR \times 1.725$
- If you are extra active (very hard exercise/sports & physical job or 2x training) : Calorie-Calculation = $BMR \times 1.9$

Let's say you figured out that you should eat only 1,600 calories per day to lose 1.5 lbs of body fat per week. This works out to be about 267 calories per meal (6 times a day) or three 400 calorie meals and three 134 calorie snacks. A quick practical way to build a sense of how to "eat to your metabolism" is to build a list of 400 calorie, 267 calorie and 134 calorie meals/snacks. Place your favorite combination lists on your refrigerator and pick from them and prepare your meals/snacks ahead of time. Be sure to practice eating quality whole grain "carbs", omega and/or unsaturated fats and plenty of vegetables.

All research and clinical material published by The Fit Solution is for informational purposes only. Readers are encouraged to confirm the information contained herein with other sources. Patients and consumers should review the information carefully with their

jobs as you stand up straight after touching your toes---but the glutes are larger and should be doing most of the work. If they are inactivated due to tightness, weakness injury etc. the smaller muscles (lower back and long head of the hamstring) can be overstrained. In RI the muscle group on the opposite side of the injury, tight or over-active muscle is weakened by a relaxed neural response. For example, if you injured your hamstring or are extremely tight in the back of the leg, the front upper leg or thigh muscles (on the opposite side of the same leg) will be weaker. If you fix the tightness or injury you can protect yourself from future injury as well as regain strength in an area that being "blocked."

- To develop flexibility in the hip practice all of the hip stretches in the Sample Anatomical Adaptation Workout below. Also, practice using exercises that abduct (or open the hip sideways---see side steps in sample routine)), adduct (close legs together), extend the hip (see stiff leg deadlifts in sample routine) and flex the hip (forward leg raises, knee raises etc.). If your hips are tight or weak your other joints

professional health care provider. The information is not intended to replace medical advice offered by physicians. The Fit Solution will not be liable for any direct, indirect, consequential, special, exemplary, or other damages arising therefrom.

that are not designed to do what the hips do try to assist---this leads to further injury and aggravation.

- The reason you want to develop "core strength" is because many of the movements that your limbs do depend on the strength of your midsection. So as you get stronger here your injured limbs are also less strained.



TOP 100 MBEsSM HONORING MINORITY AND WOMEN ENTREPRENEURS

I would like to personally thank all of our clients, employees, community partners, and friends for the continued support throughout the years. The Fit Solution has been chosen as one of the Top 100 Minority Enterprises in the Maryland, District of Columbia and Virginia regions. Out of the reach of over 400,000 women and minority business owners and more than 1,400 nominations, The Fit Solution was selected for outstanding achievement in the areas of eligibility, entrepreneurship, professionalism and community contributions. Once again, thank you very much and we will continue to strive to provide you with excellent service in the field of exercise physiology and nutritional science.

P.S. If you would like to attend our honoring ceremony on Thursday, November 6, 2008 please click the logo above for more information. We would love to see you.

Where: University of Maryland University College
Marriott Inn and Conference Center
3501 University Boulevard E
Adelphi, Maryland 20783

When: 5:30 PM-8:30 PM

Yours in Health,

Yusef R. Battle, ACSM RCEP
The Fit Solution, Founder

The Fit Solution Upcoming Events:

Congressional Black Caucus Health Empowerment Program
Saturday, September 27th
10:00 AM-3:00 PM
Washington Convention Center

State Farm Walk-a-Thon & 50 Million Pound Challenge Wellness Fair
Saturday, October 4th
10:00 AM-2:00 PM
Bowie State University

Bison Stampede 5K (Howard University Homecoming)
Saturday, October 18th
7:00 AM-9:30 AM
Howard University Campus

Whole Foods Market Fall Festival 2008
Saturday, October 18th
2:00 PM-6:00 PM
Downtown Silver Spring Whole Foods

Holiday Health and Fitness Expo
Saturday, October 25th
9:00 AM-2:00 PM
Prince George's Community College

American Diabetes Association with musical guest
Angie Stone
Also sponsored by the Eli Lilly Foundation
Saturday, October 25th
10:00 AM-3:00 PM
Greater Mount Calvary Holy Church
(610 Rhode Island Ave. NE)

HUD Healthy Lifestyle Expo
(call HUD in advance to see if you may attend)
Wednesday, October 29th
11:00 AM-3:00 PM

WPGC For Sisters Only
(at American Heart Association booth)
Saturday, November 1st
11:00 AM-8:00 PM
Washington Convention Center

Montgomery County G.O.S.P.E.L. Fatherhood Conference
Saturday, November 8th
8:00 AM-3:00 PM
Richard Montgomery High School

NBC-4 Health & Fitness Expo

(at American Heart Association booth)
Saturday, January 10th
Sunday, January 11th
Washington Convention Center

If you would like more information about attending any of these events please contact us at (240) 994-5268.

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