

ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle



INCREASE your energy output with NEAT

Weight regulation is much more complex than the calorie-in vs. calorie-out equation. There are a myriad of factors that impact weight, and once excess weight is gained it is very difficult to reach and maintain a healthy weight. Despite this, it is still true that fat stores can only increase when energy (calorie) intake is greater than energy output, and fat stores can only decrease when energy intake is less than energy output. Obesity is the result of a long-term energy imbalance of months or years. The more we learn about the factors impacting weight, especially those that we can directly control, the better we will be able to prevent and treat obesity. The focus of this newsletter is on the energy output component of the energy equation of which there are three parts:

- **Basal metabolic rate (BMR)** is the number of calories your body burns at rest to maintain normal body functions. BMR is

dependent upon age, weight, height, gender, body composition, diet and exercise, and can change over time. For many people this is about 60% of daily caloric output.

- **The thermic effect of food (TEF)** is the energy required to digest, absorb and metabolize food. This is about 10-15% of daily caloric output.
- **Activity thermogenesis**, you guessed it, is the energy used for activity. It can be broken down into two parts, exercise-related and non-exercise-related thermogenesis (NEAT). Exercise-related thermogenesis is the energy used when engaged in aerobic dance, swimming, jogging, bike riding and other forms of intentional exercise. NEAT is the energy used in the activities of daily living; shopping, sitting, playing guitar, and walking throughout your workplace. NEAT can range from 15% of total daily caloric expenditure in sedentary people to 50% or more in very active people.

Energy output is a big part of the energy equation for weight loss and maintenance. Take a look at the three parts of energy output; the basal metabolic rate can change,

but change will happen slowly over time. Little can be done to alter the thermic effect of food. That leaves activity thermogenesis as the component of energy output that we can fairly easily manipulate. Exercise-related activity thermogenesis is an important aspect of the energy balance equation and a regular exercise program is needed for most people to reach and maintain a healthy weight. Realistically, there is only so much time, energy and motivation one can devote to an exercise program. Most of our time is spent working, taking care of our homes and families and participating in leisure activities. This then raises the question, "Is there a way to move more during our daily activities to increase the non-exercise-related activity thermogenesis (NEAT) and enhance our energy output, and if we can find ways to do this, will it help us to reach and maintain a healthy weight?" Much of the information we have about NEAT comes from Dr. James Levine of the Mayo Clinic.

There are a host of factors that impact NEAT. Some are obvious, others not so much so. Let's take a look at a handful of the factors.

- Occupation has a major role in NEAT. Someone who engages in manual labor for a living will have much different NEAT than someone who has a desk job.
- Modern conveniences and environments promote a sedentary lifestyle. Examples of

this abound, from the motorized walkway at the airport, the fast food drive-through, elevators, taxi cabs, suitcases with wheels,



and washing machines, to the more recent online shopping. In addition, leisure activities like neighborhood softball and dog ball games have largely been replaced by computer games, gaming systems, cell phones, and movies.

- Gender may play a role in NEAT with boys generally being more active (higher NEAT) than girls, or the gender role of many women who work outside the home and also have the responsibility for the majority of the household work (higher NEAT).
- Education and income levels impact NEAT. Those with higher education and income levels tend to be more active than those with lower education levels.
- Weather and climate impact NEAT. People tend to be less active when it is cold, cloudy, raining, snowy or otherwise unpleasant to be outdoors. NEAT can increase by 50% when weather is conducive to outdoor activities.
- Those with a higher body weight will use more energy moving than those with a lower body weight.
- Those who have lost weight use about 15% less energy during physical activity compared to those who have a stable weight. This means that a 150# woman who just lost 30# will expend less energy walking the same distance than a 150# stable-weight woman. This may be part of the

Exercise is so much all about movement — getting up from the television to run and jump and play. Sometimes families are very sedentary, and they see it as too big of an obstacle ... but they don't have to go from sedentary to an hour-a-day workout.

Tami Streich

How Little Changes Can Really Add Up!

Here are examples of how you can change your daily routine to burn more calories:

Typical Day at the Office Calories burned

Park by building and take elevator to your floor.	15
Park 5 blocks from office and take stairs to your floor.	80-120
Make phone calls for an hour at desk.	15
Take calls standing up and pacing. Put notepad on bookcase or filing cabinet to take notes without bending down.	100-130
Seated 45-minute lunch.	25
Walk 30 minutes at lunch; sit and eat 15 minutes.	100-130
Seated 1-hour meeting.	15
1-hour walking meeting.	150-200
Take elevator to ground floor. Walk to car. Drive home.	15
Take stairs out of the building, walk back to car.	80-100

Typical day total: 85
Picking up the pace total 510-680

Source: Adapted from *Move a Little, Lose a Lot* by James Levine and Selene Yeager

reason that it is so easy to regain weight after having worked so hard to lose it. Scientists are not sure why this happens.

- In the past, people have generally been less active as they aged, although this trend may be reversing with activity levels of seniors increasing more than in young adults.

Dr. Levine found that the average person burn 700 NEAT calories on an average day). Obese individuals move a lot less than normal-weight individuals, resulting in less NEAT. If you set it up right, you may be able to burn up to 1,000 extra NEAT calories a day! Now that has got to have some implications for getting to and staying at a healthy weight.

Simply put, to increase NEAT, decrease sedentary time (sitting, lying down) and increase standing and moving throughout the day. Some of these ideas you have heard before, but others may be new.

- Use a pedometer to track the number of steps you take throughout the day. This will let you know how much you are moving throughout the day. An initial goal is to build to at least 10,000 steps a day, but some people will require up to 15,000 steps a day to maintain a healthy weight.



- Take the stairs when possible. Start with one flight up or two flights down and build your strength and endurance. If you are going up several flights, walk one or two and take the elevator the rest of the way.

- Walk or bike rather than drive when possible. This works great for short errands when you live in a city or town.
- Walk while you talk with your co-workers. Rather than calling, exchanging emails or chatting at your workstation, walk down the hallway or to the water cooler to discuss your business.

A man's health can be judged by which he takes two at a time — pills or stairs.
Joan Welsh

- Walk at lunch. If you take your lunch, rather than standing in the cafeteria line, you may find that you have a few minutes to spare for a 10 minute stroll.
- Put a treadmill or stepper in front of your TV and take a leisurely stroll as you watch your favorite programs.



- Add a workstation to your treadmill and walk at a leisurely 1.1 mph rate. This is a novel idea that would be sure to decrease sedentary time for many of us. Even if you are unable to do this at your place of work, you could do it at home

while you pay the bills, update your Facebook page, shop online, or even play computer games. Some companies are embracing these new workstations—workers burn 100 calories an hour, are more focused, and have more energy throughout the day.

- Stand or walk in place while talking on the phone.
- Meet your buddies at the park for a walk rather than going out to eat or talking on the phone.

In the News

Those 65 and older are not at greater risk for side effects when undergoing weight loss surgery. More older people are undergoing bariatric surgery and the good news is that the research confirms that surgery can be done safely. Seniors may face an insurance challenge with Medicare to have the procedure covered. See the full story: http://www.nlm.nih.gov/medlineplus/news/fullstory_111854.html



The Treadmill Desk



If you like the idea of the treadmill desk, but don't have \$5,000 sitting around, you can build your own. There are a lot of different versions of the treadmill desk from the very simple to the quite elaborate. You may want to start with something homemade and simple and then learn from the experience and upgrade if you find that you like your new "mobile" office. Here are some links to pictures and instructions to get you started:

- Build your own treadmill desk for \$39.00 (<http://www.treadmill-desk.com/2007/06/anders-burvall.html>)
- Build a detached desk (<http://www.treadmill-desk.com/2007/06/step-2-building-your-desk-design-2.html>)
- Dr. Levine talks about the treadmill desk (<http://www.youtube.com/watch?v=wiw-7-zY9iQ>)
- NY Times article (<http://www.nytimes.com/2008/09/18/health/nutrition/18fitness.html>)
- Walkstation (http://details-worktools.com/products/walkstation/?gclid=ClrgtMHU_qgCFcbc4AodKT1H1IQ)

Exercise is a journey,
not a destination.

journey



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www.barixinfo.com



Recipes

Asparagus Frittata

2 teaspoons olive oil
1 small onion, thinly sliced
1/2 teaspoon salt
1 pound asparagus, tough ends snapped off, spears cut diagonally into 1-inch lengths
1 cup egg substitute, lightly beaten
1 cup shredded Swiss cheese

Heat olive oil into a 10-inch ovenproof frying pan over medium high heat. Add onions and salt and cook, stirring occasionally, until onions are softened, about 3 minutes. Add asparagus, reduce heat to medium-low, and cook, covered, until the asparagus is barely tender, 6 to 8 minutes. Pour in egg substitute and cook until almost set, but still runny on top, about 2 minutes. While cooking, pre-heat oven broiler.

Sprinkle cheese over eggs and put in oven to broil until cheese is melted and browned, about 3 to 4 minutes. Remove from oven with oven mitts and slide frittata onto a serving plate. Cut into wedges. Makes four servings.

NUTRITION INFORMATION

PER SERVING: 206 calories, 17 grams protein, 12 grams fat, 5 grams carbohydrate, 304 mg sodium.



Chipotle Citrus Pork Tenderloin

2 pork tenderloins, about 1 pound each, halved crosswise
1 cup orange juice
6 tablespoons fresh lemon juice
6 cloves garlic, smashed
2 shallots, chopped
2 dried chipotle chilies, crushed into small pieces with your hands
1 tablespoon olive oil
Kosher salt and freshly ground black pepper
3/4 cup low sodium chicken broth
2 tablespoons chopped fresh cilantro

Mix orange juice, lemon juice, garlic, shallots and chilies in a small bowl. Pour over tenderloins and let sit for 20 minutes at room temperature. Preheat oven to 400 degrees.

Heat olive oil in a large, ovenproof skillet over medium-high heat. Remove the tenderloins from the marinade, reserving the marinade. Wipe the tenderloins dry with a paper towel and season with salt and pepper. Add to the skillet and cook, turning as needed, for 4 to 5 minutes, until evenly browned. Transfer to the oven and roast for 12 to 15 minutes, until they reach an internal temperature of 160 degrees. Remove tenderloins from skillet and cover loosely with foil to keep warm.

Pour remaining marinade into skillet, add chicken broth. Bring to a boil over high heat and cook for 8 to 10 minutes, until reduced and thickened. Pour through a fine-mesh sieve into a bowl.

Cut tenderloins across the grain into thin slices and arrange on a platter. Drizzle sauce over top and sprinkle with cilantro. Serve. Makes 6 servings.

NUTRITION INFORMATION

PER SERVING: 219 calories, 32 grams protein, 7 grams fat, 4 grams carbohydrate, 313 mg sodium.

Featured Product



ProFuse is now available in 2 oz protein shots for just \$4.00 each or \$42.00 for a case of 12 or the original 16 serving container for \$2.00.

Packed with essential Vitamins B12 and D3, ProFuse is a concentrated high-dose protein shot broken down to be quickly absorbed into the body. With 10 times more protein, 2 times more B12 and 1000 times more Vitamin D3 than 5-hour energy drinks, ProFuse is the ultimate protein infusion.

Following 8 years of development with Medical Nutrition, Dr. Schram is happy to introduce ProFuse — a vitamin-infused liquid hydrolyzed protein that tastes great. The response from bariatric patients has been overwhelming. Every one-ounce serving of ProFuse contains:

- 10 grams of protein: vital to energy production, the regulation of metabolism and digestion
- 1000mcg of Vitamin B12: the energy vitamin, essential for supporting the body's immune system
- 1000IU of Vitamin D3: helps maintain strong bones, decreases risk of cancers and infectious diseases
- Only 48 calories, 2 carbs and fat free
- Lactose and gluten free, a certified kosher product
- Made in the USA

REWARD YOURSELF

This month, you could earn a SPECIAL GIFT for your "It Worked For Me" tips or recipes! Just submit as many recipes and "It Worked For Me" tips as you like. The most original and creative will be awarded a special gift from our online store. Include your name and contact info with your entry—make sure your recipes follow Barix nutritional guidelines. Tips must be submitted by June 30, 2011. Please send comments, ideas, recipes and "It Worked For Me" tips to Deb Hart, RD, LD at dhart@foresthealth.com.

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RECONSTRUCTIVE SURGERY

To receive a **FREE RECONSTRUCTIVE SURGERY** guide, call 800-282-0066 or send us an email at rc@barixclinics.com with your name and contact information. Our reconstructive surgery program is currently performed at our centers in Michigan, Ohio, and Pennsylvania. **Call us today for more information!**

SHARE YOUR SUCCESS

Tell us about how your life has changed as a result of your weight loss surgery. Your story may be printed in this publication or on one of our websites and can serve as an inspiration to others.

Submit your story online (http://www.barixclinicsstore.com/share_your_story.html).

We'd love to hear from you.

QUESTIONS

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YOUR SURGERY?

Call a Barix Patient
Service Representative
at 800-282-0066

Protein Drinks

How do you find a protein drink that you look forward to each day? For this and other valuable advice and feedback from other Barix patients, visit forum.barixclinics.com. A member posted this on the Barix forums and received the following feedback (edited):

Posting: I absolutely hate protein drinks. I don't know if it is the smell or what but when I was on full liquids, it was all I could do to get those down. And when I got on soft foods, forget those shakes. But now I am not getting enough protein in. Any ideas?

Response 1: Have you tried the premixed ones like Slim Fast Low Carb or Atkins? I think they taste better than the powdered stuff and are thinner with no lumps. I still drink one a day to help get in the protein.

Response 2: I couldn't agree with you more! About the only one I can stomach is the chocolate with peanut butter & milk. It makes a lot. I freeze the other portion and pretend I'm eating ice cream...lol.

Response 3: I was able to do the berry shot of fruit punch (New Whey). I have to put that in a glass with some light Hawaiian Punch.

Response 4: You do not need to use the protein powders to get your protein in, although it is hard in the early without using them. Adding ice in the blender helps immensely. The Any Whey protein powder that Barix sells is virtually tasteless and pretty much doesn't change the consistency of anything you put it in.

Here are two of my favorite protein-packed recipes:

PUMPKIN SHAKE

¼ cup pure pumpkin puree
3 Tbs Splenda granular
1 heaping scoop vanilla protein powder
½ tsp pumpkin pie spice or cinnamon
¼ cup Coffeemate Hazelnut Liquid Sugar Free Creamer
1 cup water
6 ice cubes

Combine all ingredients in blender—pulse until smooth and frosty. Serve with dusting of cinnamon on top and a dollop of sugar-free Cool Whip. This has 28 grams of protein.



SUGAR-FREE FINGER JELLO WITH FAGE YOGURT

1 large box sugar-free jello
1 ¾ cup water
4 Knox gelatin packets
2-7 oz containers of Fage 0%
1 protein bullet, flavor that complements the jello flavor

Heat 1 cup of water to boiling. Meanwhile, put remaining ¾ cup of cool water in a bowl and sprinkle the Knox gelatin over top. When water comes to a boil, stir in jello until dissolved. Add jello mixture to the gelatin and stir until it is all dissolved, stir in the protein bullet, stir in the Fage yogurt. Pour into a 9x13 pan. Cover and refrigerate until set. Cut into 24 pieces. Each piece has 25 calories and 4.5 grams of protein.

Response 5: I tried a couple protein powder shakes today with great success! The first one I had was a 6 oz container of Fage 0%, ½ cup skim milk, one scoop Nectar Caribbean Cooler powder, ½ a banana and a few ice cubes blended. I also tried 1 scoop chocolate protein powder, ½ cup skim milk, 4 ice cubes, 1 Tbsp of peanut butter blended. It was FABULOUS.

Response 6: I buy Premier Protein shakes from Costco! They are \$24 for 18 shakes (chocolate or vanilla) and each shake has 30 g of protein. That's almost half my protein intake for the day, and I just drink it on the way to work. Super easy and delicious!

Response 7: I wasn't really into the protein drinks until I found Syntrex's Matrix Mint Cookie. Barix sells it. I love it! I use a half scoop of the powder, ½ cup milk and a few frozen strawberries. It is delicious! I have also had it with a half banana instead of the strawberries and that is good too.

Response 8: I'll second the Syntrex's Matrix Mint Cookie shake. That is my new favorite right now. I use one scoop in 12oz of skim milk to give me 35g of protein. It tastes like you are eating melted mint chocolate chip cookie ice cream. Throw it in the freezer for a bit and it's even better! It's so good it shouldn't be legal.