

METABOLISM 101

So many people are talking about how slow their metabolism is and why they need to start taking the latest diet supplement, fad diet or medication -- yet they don't even understand how the human metabolism works. Often the subject of metabolism is treated like some remote, mysterious and magical force acting on the body. The fact is, if you implement specific habits into your lifestyle **you** can make your body perform at a higher rate metabolically on an everyday basis.



In order to know what you must do to change it, you have to understand the factors that affect your metabolism.

So before going into how to speed yours up, first let's go over some basics:

What Is Metabolism?

Although there are many ways to explain it, **metabolism is the rate at which your body burns calories to sustain life**. Your body burns calories 24 hours a day, everyday, regardless of whether or not you workout. Remember that your body needs energy all the time, even while you're asleep -- that is why skipping meals is not a good thing do if your goal is to lose weight (body fat).

Let's talk about...

What Affects Metabolism?

What do you think has the **biggest** impact on your metabolism--activity levels, your thyroid, age? Activity levels, thyroid function, and age do affect metabolism but not nearly as much muscle tissue. The more muscle you have the more calories you burn regardless of how active you are, how old you are, etc. It's live tissue and it's there working for you and burning calories 24 hours a day - each and every day!

The purpose of the food you eat is to fuel and build/repair your body. Your body functions on a needs basis. Any excess calories and nutrients you eat either get flushed down the toilet or are added to your frame as FAT!

Factors Affecting Metabolism In Order Of Greatest Impact To Least:

- **Muscle tissue** (you already know why this is on the top of the list)
- **Meal frequency** (the longer you go between meals the more your metabolism slows down to conserve energy)
- **Activity level** (important but doesn't make any difference if you don't match your eating to your expenditure)
- Food choices (ex. low-fat diets tend to result in poor hormone production which leads to a slower metabolism)
- Hydration (over 70% of bodily functions take place in water - not enough water causes all your systems to slow down and unnecessary stress)

- Genetics (some people have higher metabolisms than others - you can't change genetics but you can still win the battle!)
- Hormone production and function (think you have a slow thyroid? it's not likely - before you go blame it on the thyroid first stabilize your blood sugar and throw in some progressive exercise 2-3 times each week)
- Stress (stress also can slow metabolism by placing extra stress and strain on numerous systems. plus, many people tend to overeat when "stressed out")

Why Does It Slow Down?

How many times have you heard someone say, "as soon as you hit 30 your metabolism slows down"? Maybe you've said it. However, metabolism does NOT slow down significantly due to aging but DOES due to a lack of muscle. And, you don't lose muscle quickly due to aging either but due to a decrease or lack of physical stress (think about how much you moved around on a daily basis when you were 20 compared to your 8-10 hour desk-set lifestyle today).

So, The Major Cause Of A Slowing Metabolism Is Three Fold...

1. You lose muscle due to the lack of physical stress.
2. Your body cannibalizes muscle when it needs energy but you won't supply any because you are "dieting" and skipping meals.
3. Your activity levels tend to decrease as you get older (a better way to put it is -you decrease your activity as you get older).

Now that we know the problem... what's the solution? Address those 3 issues! Increasing your metabolism and getting rid of that excess body fat can often times be quite easy! Yet you'll hear "experts" telling you how hard it is and why you need to buy their new diet program, supplement, or fitness contraption.

It's not that hard, it doesn't have to be confusing, and you don't need any of that junk! All you need is an understanding of how your body works and the willingness to make some small changes.

Here's a basic formula for jump starting your metabolism:

Step 1 - Stop The Storage Of New Fat

It doesn't make any sense to start an exercise program if you just end up adding new fat later that day. This is a problem that is very common among people who start an exercise in an attempt to lose weight. The problem is...

We don't get fat due to a lack of exercise - we get fat because we supply the body with more calories than it needs at a given time. So the solution is not just about exercise - it's also about your eating! And I'm not saying you have to eat low-fat, super clean and healthy diet consisting of salad and tofu only (although the more natural and unprocessed your food, the better). You can still eat the foods you like IF you can give the body just the amount it needs.

The key is to give the body the energy it needs, but just that amount and not a bunch extra because extra is extra, it doesn't matter what it's from (remember, there has to be a need for those calories). Salad can be stored as fat, celery can be stored as fat - if it results in extra it can be stored as fat.

So forget about trying to burn off any fat unless you can first stop storing new fat! Again, you do that by matching your eating to your activity level. This means small, balanced meals or snacks every 2-4 hours and the amount of calories in each feeding should depend on how active you are at that time of day.

Step 2 - Attack The Existing Fat

This requires a combination approach consisting of stable blood sugar/energy levels, and **progressive cardiovascular/aerobic exercise and strength training.**

We already talked about how important stable blood sugar and energy levels are and how to match your eating to your activity level so now I'd like to cover the exercise part of the equation.

In order for the exercise to even be worth your time you must be sure it's progressive. Just because you run on the treadmill for 30 minutes three times a week doesn't mean your body has to burn off that unwanted body fat! You have to force the body to make changes and improvements and the ONLY way to do that is to consistently provide a stimulus or stress that is greater than what the body is used to.

General Guidelines On How You Can Make Your Exercise Progressive & Productive:

Strength training

- Change exercises frequently (every 3-6 weeks)
- Increase resistance regularly
- Perform more reps
- Slower reps
- Use more advanced techniques

Cardiovascular training

- Increase speed/resistance
- Perform intervals
- Increase distance traveled
- Cross train by performing numerous activities

It is important that you have a thought out plan to follow. You shouldn't just say "ok, now I know what to do" and then try a little of this here and little of that there. You need a roadmap. If you are serious about achieving your weight loss and fitness goals get the help of a Wellness Center staff person. Whether that means one on one consultation, personal fitness training or just a do-it-yourself fitness plan - your chances of success are much greater.

Here's a metabolism check list based on what we've discussed already :

What Are My Current Dietary Habits?

1. Do I Eat A Balanced Diet?

It is IMPERATIVE that our bodies eat a combination of protein, carbohydrates & fat. These are ALL sources of energy for survival. Your diet should consist of a VARIETY of foods.

2. Do I Eat Breakfast?

It is common for some people to miss breakfast due to fast paced lifestyles. Eating breakfast "kick starts" your metabolism after going for hours without fuel.

Studies show that eating breakfast also decreases your chances for obesity and insulin resistance syndrome. This metabolic disorder is signified by the body's resistance to use blood sugar (glucose) efficiently, boosting the risk of diabetes and heart disease.

3. Do I Eat Mini Meals Frequently?

Think of your body as a fire. The more frequently you "throw a log on the fire" the greater the burning capacity. Without a doubt, You can tell the difference in your metabolism and energy level when eating 6 or 7 times a day rather than 4 or 5. Eating 200 calories 6 times a day is STILL only 1200 calories! Every 24 hours is recommended for optimal results.

4. Do I Exercise Portion Control?

Most individuals have no idea of the size of a standard portion. To give you a rough idea, use your hand as a guideline. A portion of meat should be about the size of your fist. Most fruits, vegetables, other food portions could be held in the palm of your hand or about 1/2 a cup. How many servings are you REALLY eating?

5. Do I Strategize My Eating?

If I want to eat high carbohydrate foods, do I spread them out and eat them EARLY in the day (no later than 3 p.m.) so that my body has a chance to burn them off before my metabolism slows down at the end of the day or before I go to bed?

6. Do I Avoid Saturated Fat, Processed Food (including soda) and Refined Sugar?

The more NATURAL the food, the better the body utilizes it. Saturated fat and chemicals found in processed food only inhibit the body's design to function. 1200 calories a day from refined & processed food will have nowhere NEAR the same effect or micronutrient content of a 1200 calorie diet from whole grains, fruits, vegetables, lean meats, fish, nuts and seeds.

7. DO I Avoid Eating Late At Night OR During The Night?

Remember the metabolism slows down during inactivity. Eating late or in the middle of the night will require your body to work at burning or storing calories, NOT resting! Avoiding late night indulging results in waking up more refreshed & rested. If you have to eat late, eat little & choose carefully!

8. Do I "Spice Things Up"?

There's no need for food to be bland. Spices & herbs are PLANTS, which contain many essential nutrients. Specific spices, such as cayenne, contain thermogenic properties. It's a GREAT way to spice up your egg whites!

9. Do I Eat At Least 1200 Calories Daily?

If you are one of the billions of individuals attempting to lose weight, cutting calories by 10-15% might just do the trick. Skipping meals and restricting your calories below 1200 results in metabolic suppression. Your body has it's own "brain" and begins to slow down metabolism if you're not eating enough. Most bodies require 1200 calories daily just to survive.

Assess Your Current Exercise Habits:

10. Do I Exercise At Least Three To Five Times A Week?

If you want to make changes in your metabolism and your physique, persistence and consistency is required!

11. Do I Create Overload Or Push Myself With Some Sort Of Intensity?

One of the three basic training principles is OVERLOAD. The muscles must be pushed beyond what is normal or comfortable in order for training to take place. This is what takes you to the next level. You should never train beyond 90% of your capacity! If you choose to do so, realize the injury risks increase dramatically!

12. Do I Change My Exercise Regime?

If you have been doing the same thing in the same way for weeks, months or years... GET OUT OF YOUR RUT! Your body responds best to change! Change the order, the exercises or implement intervals of jump roping, biking or other exercise.

13. Do I Cross Train?

Rather than always running or biking, how about ADDING roller blading, cross country skiing or swimming? Remember: YOUR BODY RESPONDS BEST TO CHANGE AND you'll be MUCH less likely to develop repetitive stress injuries from using the same muscles in the exact same way all the time.

14. Do I Combine Weight Training and Cardiovascular Exercise?

Studies report that you triple your efforts by combining the two. If you weight train, you burn more calories for your efforts during cardiovascular exercise because your body contains more lean mass than those who abstain from weight lifting.

15. Do I Attempt To Stay Active Outside The Gym?

Every flight of stairs, walk to the mailbox, household chores, or hours of gardening ALL ADD UP! A sedentary lifestyle works AGAINST your body's metabolism.

Stay as active as possible throughout the day. If you have a sedentary job, take breaks and short walks. When you return to work you will be refreshed, more energized, more focused & ready to go.

Check the list below to see if your diet includes the following foods:

Basic Metabolism Dietary Guide

| NUTRIENT | ESSENTIAL FOR | FOUND IN |
|------------------------------------|--|--|
| <u>Calcium</u> | Involved in enzyme activation, including lipase, which breaks down fats | Dairy foods, seafood, sardines, dark leafy greens, tofu, figs, prunes, soybeans |
| <u>Essential Fatty Acids</u> | Proper function of the thyroid; reducing triglycerides (blood fats) and cholesterol | Deep water fish, flaxseed, canola, olive, primrose, wal-nut & flaxseed oils |
| <u>Chromium</u> | Metabolism of glucose; energy | Brewer's yeast, brown rice, cheese, meat, whole grains |
| <u>Vitamin B 1 (Thi-amin)</u> | Carbohydrate metabolism, supplies energy, boosts immune system, healthy skin | Pork, dried beans, peas, broccoli, wheat germ, egg yolks, poultry, fish, soybeans & whole grains |
| <u>Boron (Trace Mineral)</u> | Metabolism of calcium: Uses energy from fats & sugars | Apples, carrots, grapes, dark green leafy vegetables, raw nuts, whole grains |
| <u>Vitamin B 6 (Pyridoxine)</u> | Regulates metabolism, activates enzymes, may reduce symptoms of PMS, depression & asthma | Brewer's yeast, eggs, fish, baked potato with skin, spinach, carrots, banana, peas, avocado, chicken, wal-nuts & sunflower seeds |
| <u>Biotin</u> | Helps produce energy and regulate metabolism | Chicken, lamb, beef, pork, veal, liver, soybeans, milk, cheese, cooked eggs, yeast, whole wheat flour, peanut butter & rice bran |
| Iodine | Metabolism of excess fat/healthy thyroid function | Seafood, iodized salt, kelp, & saltwater fish |
| <u>Protein</u> | Metabolism of fats & carbohydrates | Seafood, poultry, lean red meat, egg whites, dairy food, nuts, tofu & soybeans |
| <u>Panthenic Acid (Vitamin B5)</u> | Important component in metabolism & nerve transmission; important to the production of hormones that reduce stress | Eggs, potatoes, saltwater fish, pork, beef, milk, whole wheat, peas, beans, & fresh vegetables |
| <u>Zinc</u> | Needed for the proper release of insulin | Brewer's yeast, egg yolks, fish, kelp, lamb, legumes, lima beans, liver, meats, mushrooms, oysters, pecans, poultry, pumpkin seeds, whole grains |

Your metabolism doesn't have to be a mystery to you. Use the above information to take control of your weight and health. No one else can do it for you. You have the most influence on your metabolism. Perform your own magic.

Adapted from Metabolism Mystery Uncovered by ReformFit and Take Control of Your Metabolism by Jesse Canonne