



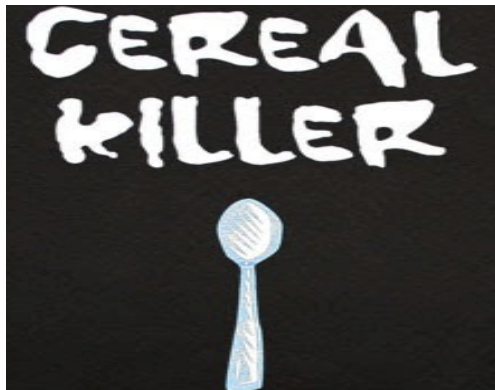
AAARRRGGGHHH!!!

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King T.U.T (Time under Tension)

T.U.T. refers to the amount of continuous time your muscles are working. In order to increase lean muscle mass and metabolic demand while simultaneously lowering your body fat, T.U.T. should be between 30-70 seconds per set with weight that is at least 40% of your maximal output. Any more or less time is counterproductive. It is also important to spend more time with the eccentric (lowering phase) part of the lift in order to get the greater adaptation.

Like most other resistance training variables I believe it is important to vary TUT in order to continue to elicit beneficial neuromuscular responses. So watch your watch next time you do a set and see how long it takes you.



Cereal Killer

Most cereal is made with refined grains and sugar. Commonly the first two ingredients are: Rolled oats and sugar (or high fructose corn syrup, fructose, agave, sucrose, cane, beet sugar, etc). Physiologically your body reacts the same to a bowl of (most) cereal as it would to 4 to 5 tablespoons of sugar. Furthermore, although many cereals are 'fortified', the bioavailability of these vitamins are highly suspect.

Breakfast is a vitally important meal yet less than 44% of Americans are eating it everyday. And those people who choose to eat breakfast overwhelmingly decide to go for a bowl of cereal. Typically cereals are high in sugar, carbohydrates (and chemicals) and low in fiber and protein. Individuals who eat breakfast high in protein and fiber will consume less calories throughout the rest of the day.

Healthy Breakfast Alternatives:

- Steel cut oatmeal
- Eggs with veggies
- Quinoa with sliced almonds
- Whole grain toast with nut butter
- Smoked salmon (sans the bagel)
- Low sugar Yogurt with nuts
- Ricotta with nuts or low sugar jam
- Whole wheat veggie cheese wrap
- Turkey bacon and whole grain toast
- Cottage cheese with berries
- Sliced pear with cheese
- Apple with almond butter
- Grapefruit with cottage cheese

I'm Hormonal

We've all been told in order to lose weight you need to burn more calories than you eat. Once you achieve a deficit of 3500 calories you will lose one pound of fat. I used to believe this as well. But like many things the full equation is infinitely more complex.

Ok lets do a little math and I promise it will be easy. Lets cut your calories by 500/day. In a week you would have a 3500-calorie deficit would lead to the loss of one pound of fat. In a year it would be 52lbs of fat loss. In a few years you would simply disappear. Right? Now lets do the opposite, add one medium apple (100 calories) to your diet per day for a year (everything else remains the same) you would gain 10lbs (700 extra calories per week x 52 equals 36,500 extra calories). Does that make sense? And if you take it a decade down the line you would gain a portly 100lbs. On the surface most of us believe that the only way to obesity is to take in more calories than we expend.

Thought Experiment: Picture you have an identical twin; you eat junk food all day long and she eats the same amount of calories worth of healthy low sugar foods – otherwise your lives are equal. After two months do you think your bodies will look the same? Skin, hair, muscles, body fat, body weight etc? Even though you share the exact genetics of your sibling you would express (or turn off) certain genes due to the food you ate and this would affect your body in lots of different ways.

Calories in and out certainly contribute to weight gain/loss but there are many underlying causes for this, mainly hormones. Insulin, leptin, ghrelin, T₃, T₄, and cortisol are the main culprits responsible for regulating calorie intake, body-fat, metabolism and body weight. These hormones and others make you hungry, sated, fat, skinny, tired etc. Controlling them is the key to controlling your body fat and changing your body. Unfortunately science does not fully understand the interactions and processes of these hormones. Here is a little of what is known in relation to weight gain/loss:

Insulin- Sugar intake raises insulin which then directs your body to make and store fat. Exercise lowers insulin.

Leptin- An increase in leptin causes you to feel sated (consuming dietary fat triggers an increase), while decreases of leptin escalate your appetite (consuming simple carbohydrates will decrease leptin).

Ghrelin- This hormone stimulates hunger and the storage of fat in the abdominal region. Low calorie diets provoke overproduction of ghrelin! High protein breakfasts seem to inhibit it.

Fun Fact: Learning may be best when the stomach is empty and ghrelin levels are highest.

T₃/T₄ – Higher levels increase your metabolic and fat burning rate (controlled by thyroid). Resistance training boost T₃/T₄ and low calorie diets decrease it.

Cortisol- When this "stress hormone" is released your body will store fat more readily. Vegetables, healthy fats and low sugar fruits have been shown to depress cortisol. Meditation and exercise are also inhibitors of cortisol.

Everything we put into and on our physique affects our hormones. All calories are not equal. Some calories will raise or lower certain hormones which in turn will make you fat, skinny, hungry, sated, happy, sad etc.

Simple Rules To Lose Body Fat, Keep Muscle and Stay Sated:

1. Eat less sugar
2. Eat less processed foods (anything in a package and deli meats)
3. Eat more fiber, healthy fats and good protein
4. Drink lots of water
5. Stay away from fake sugar and food chemicals a la Diet Coke
6. Eat less (or no) bread, pasta, rice, white potatoes and baking flour
7. Read nutritional labels - know what you are putting into your body
8. Get enough sleep 7-9 hrs per day
9. Move your body as much as you can
10. Eat breakfast with lots of protein and fiber
11. Very low calorie and low fat diets don't work long term