

the physiological riptide known as *aging*. This will happen no matter if you've eaten the same foods for 20 years – but, unless you are maintaining a fairly high level of energy expenditure (example: **regular exercise**) your energy requirement is dropping and body fat percentage is rising. When that happens, metabolism starts to decline.

2. Thermic Effect of Food (TEF): a second major component of metabolism is one that most people never heard of: TEF, the caloric “handling cost” of digesting, using and storing food energy. Depending on your gene's and dietary preferences, TEF can range from 10 to 15% of daily metabolism. In other words when you eat a high calorie meal, you might only absorb or get to use 85% of those calories. It takes a lot of metabolic work to convert raw foodstuffs – from trout amandine to candy bars – into forms of energy the body can use. In simplified terms, the process begins when the digestive system breaks down nourishment into its constituent building blocks. Complex carbs are reduced to simple sugars, fats to fatty acids and proteins to amino acids. Proteins provide more thermogenic effects.

It takes nourishment from food circulating through the body in the form of tiny molecules to feed the cells. Inside each cell, tiny engines further break down the food into energy forms that

power all the actions taking place in your body from fighting germs to losing weight.

Between 10-30% of the calories you burn each day get burned by the simple act of digesting your food. But not all foods are created equal. Your body uses more calories to digest protein (about 25 calories for every 100 calories consumed) than it does to digest fats and carbohydrates (10-15 calories) for every 100 calories consumed).

3. The Active Life: Metabolism's third major component – and its most variable—is physical activity. This includes planned exercise as well as the unconscious movements we perform in the course of daily life. Generally speaking, any activity can equal 15-30% of an average daily metabolism.

Exceptions are of course those who expend huge amounts of energy such as Tour de France riders who have been shown to expend as many as 9000 calories per day throughout a 3 week race.

Realistically, most of us are not going to work that hard. We don't have the energy or the time to get into that kind of shape. With family and work, we are lucky to squeeze in three work outs a week. But when you look at, 3 hours a week out of 168 represents only 2% of the total.

4. Weight Control After 40Isn't Easy:

There's no doubt about it. Every body faces thickening and a slow, steady rise in weight gain in the 40's and 50'seven people who have always been slim, who have a good diet, and who regularly exercise.

Statistics show that body fat typically doubles between the ages of 20 and 50. Both men and women go through a change of life in middle years that affect body shape.

For a woman, a primary calorie burning process grinds to a halt after menopause because the menstrual cycle consumes extra calories. Studies show that the metabolic rate in the last two weeks of the menstrual cycle account for up to 20,000 per year.... Calories that start to add up with menstruation ceases.

Therefore, a woman needs to work a little harder to lose that extra fat later in life. However, studies also show that once her body adjusts to its new hormone levels, weight gain stabilizes. Women also find that testosterone levels drop. It is easy to fix that as well with natural remedies.

Hidden Factors That Might Be Undermining Metabolism:

There can be hundreds, but for the sake of space in my newsletter, lets talk about a couple:

1. Missed Meals: Severe calorie restriction creates a biological billboard that say, "We're starving here!" Your body responds by slowing your metabolism in order to hold onto existing energy stores. What's more, if the food shortage continues, you'll begin burning fat and muscle tissue, which will further lower your metabolic rate. That is why I teach people to eat 5-6 small meals a day (grazing throughout the day) and how to eat foods in proper proportion based on average daily expenditure (proteins, carbs, fats and glucose for the brain) – and still keep you in a fairly low range of calories. One good rule of thumb seems to be cutting your daily (current) intake of calories by 500 and increasing your energy expenditure by 500 calories gives you a positive bank account of 1000 calories. In a week's time that can pretty much guarantee you a weight loss of 2-3 lbs.

When you think about it, gaining only 1 lb per month for 12 months = 12 lbs a year = 24 lbs in two years. It doesn't take much for it to add up. Its much more of a challenge to take it off than to pay attention on a daily basis to what you are putting in your mouth.

2. Hormone Shortage: when your thyroid gland doesn't pump out enough thyroxin hormone, your metabolism is forced to downshift. Including calorie burning, lethargy and weight

