



Health and Wellness

POCKET TOOLS TRAINING

Are all calories created equal?

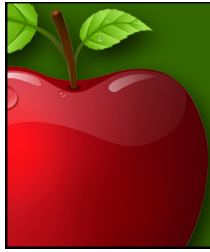
Of course not! Certainly, some of you are already raising arguments to such a statement with the supportive evidence of people like the professor who lost weight on “The Twinkie Diet”. Yeah, sure- he lost weight because the amount of energy (calories are energy) he took in was less than the amount of energy (calories, to reiterate) he expended. Does it necessarily mean that someone is “healthy” because they are skinny? Or, conversely, does it mean someone is “unhealthy” because they are fat? No, it does not. We have to stop automatically assuming that thin is synonymous with fit. Just because someone loses weight by (enter fad weight loss diet method here), does not make their lifestyle conducive to health. Yes, blood pressures, cholesterols, etc may improve temporarily; however, the change is not likely to be permanent... alas, I am getting off topic...we will save fad diets for another column. Today, I want you to understand that all calories are not created equal.

In the nutrition world, there is a very important concept known as “*nutrient density*”. This can be defined as: “*A measure of the nutrients provided by a food relative to its calorie content.*” So what are nutrients? Nutrients are important substances in our food that provide our bodies with the abilities to move, grow, heal, think, breathe, ..Well, pretty much to live! Now, our bodies can store quite a bit of vital nutrients; however, some must be consumed daily for proper functioning (think: water, vitamins and minerals). Pretty much any food we consume will provide us with nutrients to some degree; however, some foods are far more nutrient dense than others. This is where the **quality** of calories you eat varies.

Think about it this way:

What if you had a choice between two pills? One pill tasted amazing, yet offered no other benefit than that of taste. Zero, zilch, nada... it just tasted good and maybe gave you a very small, short-lived burst of energy. The second pill; however, tasted good and made your immune system stronger, provided you with sustained energy, built strong muscles and bones, made your heart stronger, lowered inflammation, protected your body from cancer, improved brain function, helped you sleep better, etc. Which pill would you choose? I know which one I would pick, hands down. The same comparison can be used when we make daily food choices. Should you eat a blueberry muffin for breakfast OR oatmeal with fresh blueberries instead? While the ingredients and calories may be similar, the quality and amount of nutrients in the oatmeal and fresh blueberries will far outweigh those of the muffin.

Let’s take a look at the nutrients in two foods with similar caloric content to illustrate the point a bit further.



Health and Wellness

POCKET TOOLS TRAINING

Light Vanilla Ice Cream		1% Milk	
Serving size: ONE HALF cup		Serving size: ONE cup	
Calories	111		118
Fat	2.29g		2.88g
Saturated Fat	1.4g		1.7g
Monounsat. Fat	0.6g		0.8g
Polyunsat. Fat	0.08g		0.1g
Protein	4.31g		9.67g
Carbohydrate		19g	13.5g
Sugar	16.45g		12g
Sodium	62mg		143mg
Potassium	194mg		443mg
Calcium	138mg		349mg
Vitamin C	.8mg		3.0mg
Folate	4mcg		715mcg
Vitamin A	91IU		499 IU
Water	61.25g		218 grams

Here we have two food items with similar caloric content. Note first of all, that the same amount of calories is found in a SMALLER serving size of the ice cream. Secondly, when comparing calorie for calorie, the milk is a far more “nutrient dense” choice than ice cream. It has more protein, less sugar, more potassium, calcium, folate, Vitamin A and water per 118 calories than does the ice cream. Clear as mud?

The bottom line is this: When you are making daily food choices to fuel your firefighting body, chose nutrient dense foods that will give you more “bang” for your calorie “buck.” In general, processed foods that come to you via a box, bag, or drive through window are going to be less nutrient dense than whole, unprocessed foods (lean meats, fresh fruit and veggies, whole grains and low-fat dairy).

Remember, the nutritional choices you make today will give you the body you have tomorrow. Thanks for reading!

Contributed by: Heidi Heavner, Fire Rescue Training Specialist, ACE Fire Service Peer Fitness Trainer
Got a nutrition related question? Email Heidi at heidi.heavner@ncdoi.gov .