THE SURPRISING PROBLEM WITH CALORIE COUNTING

Part 1: 'Calories In'

By John Berardi Ph.D. and Helen Kollias Ph.D.

Most people who count calories for weight loss or weight management assume it's an exact science. It's not. Here we outline 5 reasons calorie counting (i.e. logging your food to calculate intake) is fundamentally flawed.

Make no mistake, the principles of energy balance work:

Take in more calories / energy than you expend, you gain weight.
Take in fewer calories / energy than you expend, you lose weight.

However, *counting* calories as a way to try to know, and control, your energy intake is fundamentally — sometimes hopelessly — flawed.

For starters, you can't really trust that the calorie (and macronutrient) numbers you see on food packages are accurate. You see, the way they're calculated — if they're calculated at all — is surprisingly imprecise.

Plus, even if food package numbers were precise, once the food is cooked, or chopped, or blended, the amount of energy available for digestion and absorption changes.

Then there's what happens once that food enters your body...

In the end, even something that seems as simple as knowing how many calories you're taking in (and absorbing) can be influenced by dozens of unexpected factors.

That's why, today, we share the 5 biggest (and surprising) problems with calorie counting as it relates to the "calories in" side of the energy balance equation.

THE SURPRISING PROBLEM WITH CALORIE COUNTING

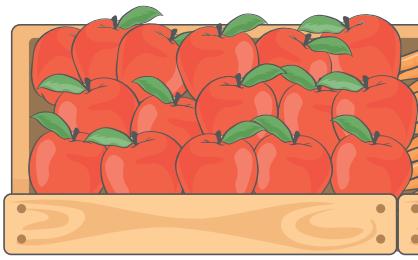
PART 1: 'CALORIES IN'

Most people who count calories for weight management assume it's an exact science. Here, 5 reasons why tracking the calories in your food is a flawed approach.

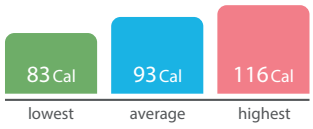
1 CALORIE COUNTS ARE IMPRECISE.

The calorie counts on food labels and in databases are averages. Research shows that the true calorie content of what you're eating is often significantly higher or lower.

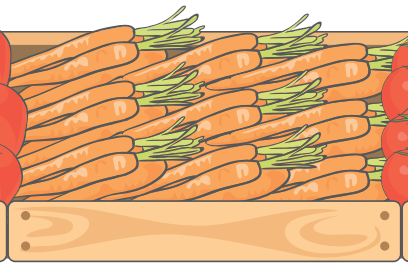
APPLES



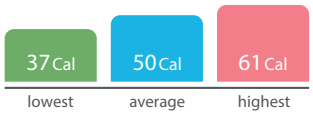
1 medium apple



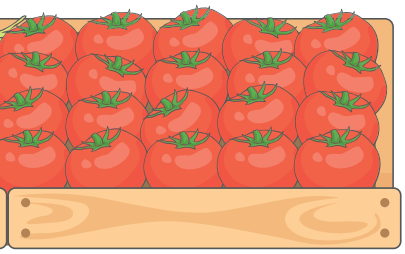
CARROTS



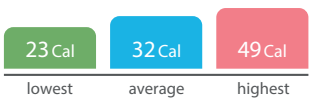
1 cup carrot sticks



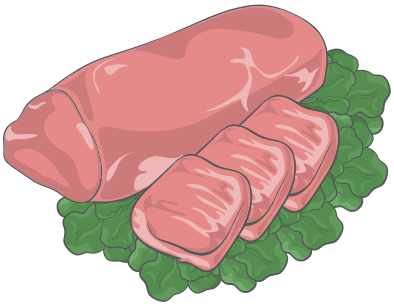
TOMATOES



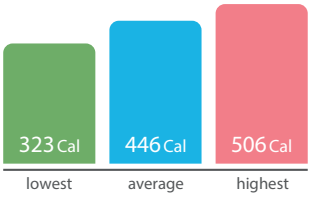
1 cup chopped tomato



LEAN BEEF LOIN

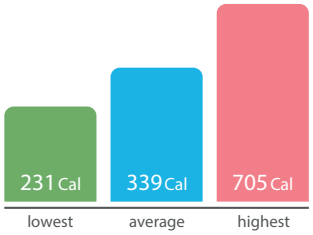


1 6-oz filet mignon

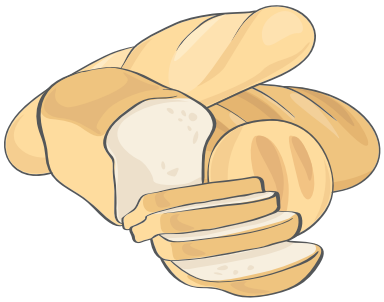


SWEET POTATO

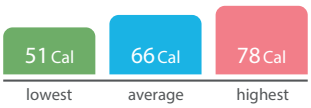
1 large sweet potato



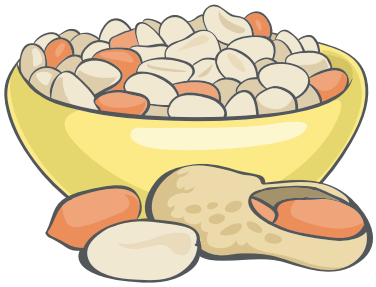
WHITE BREAD



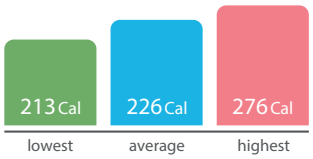
1 slice of bread



PEANUTS



1/3 cup chopped peanuts



Food companies may use any of 5 different methods to estimate calories, so the FDA permits inaccuracies of up to 20%.

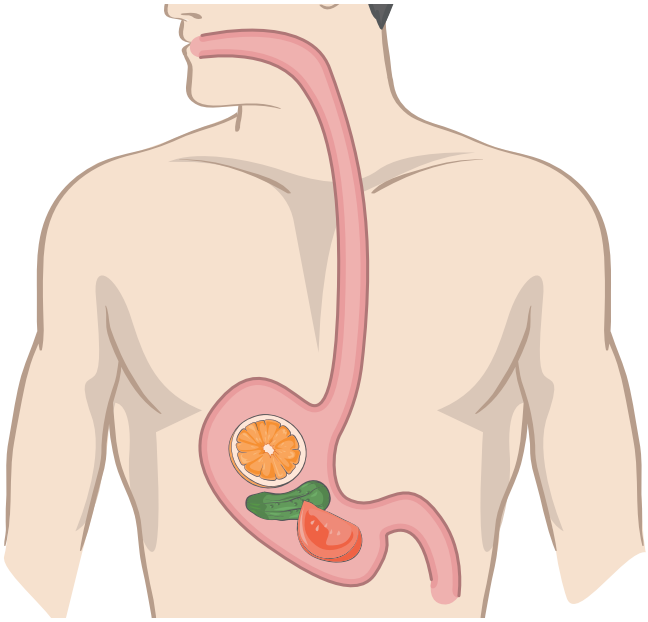
So “150 calories” actually means 130-180 calories.

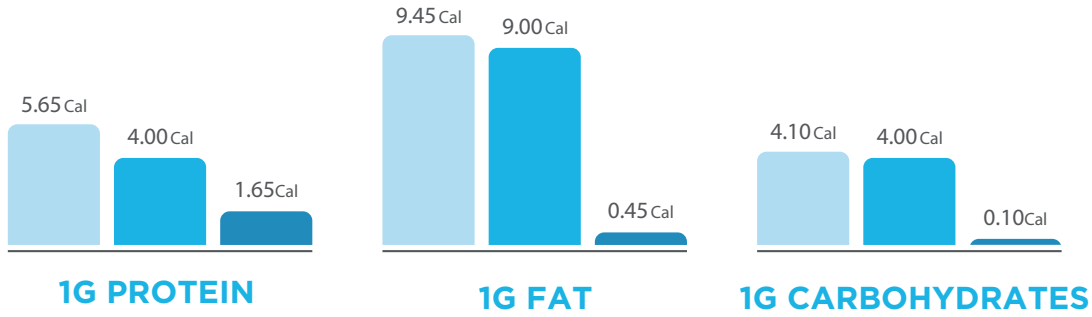
ERROR: UP TO 50%

2 WE DON'T ABSORB ALL OF THE CALORIES WE CONSUME.

For decades, scientists have used this formula to come up with calorie counts that reflect only what we'll absorb:

Some calories pass through us undigested, and this varies from food to food.

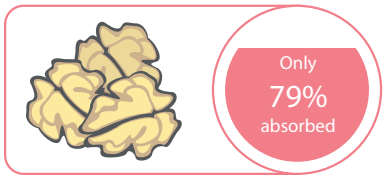




- TOTAL CALORIES PER 1 GRAM OF MACRONUTRIENT
- CALORIES AVAILABLE FOR ABSORPTION
- CALORIES NOT ABSORBED

BUT THIS FORMULA DOESN'T TELL THE WHOLE STORY, EITHER.

For example, the formula doesn't work for nuts and seeds, because we absorb fewer calories from them than calculated.



Another example: The formula is wrong about fiber-rich foods.

17% more calories absorbed

TOMATOES

28% more calories absorbed

KALE

21% more calories absorbed

CABBAGE

12% more calories absorbed

ORANGE

10% more calories absorbed

MANGO

15% more calories absorbed

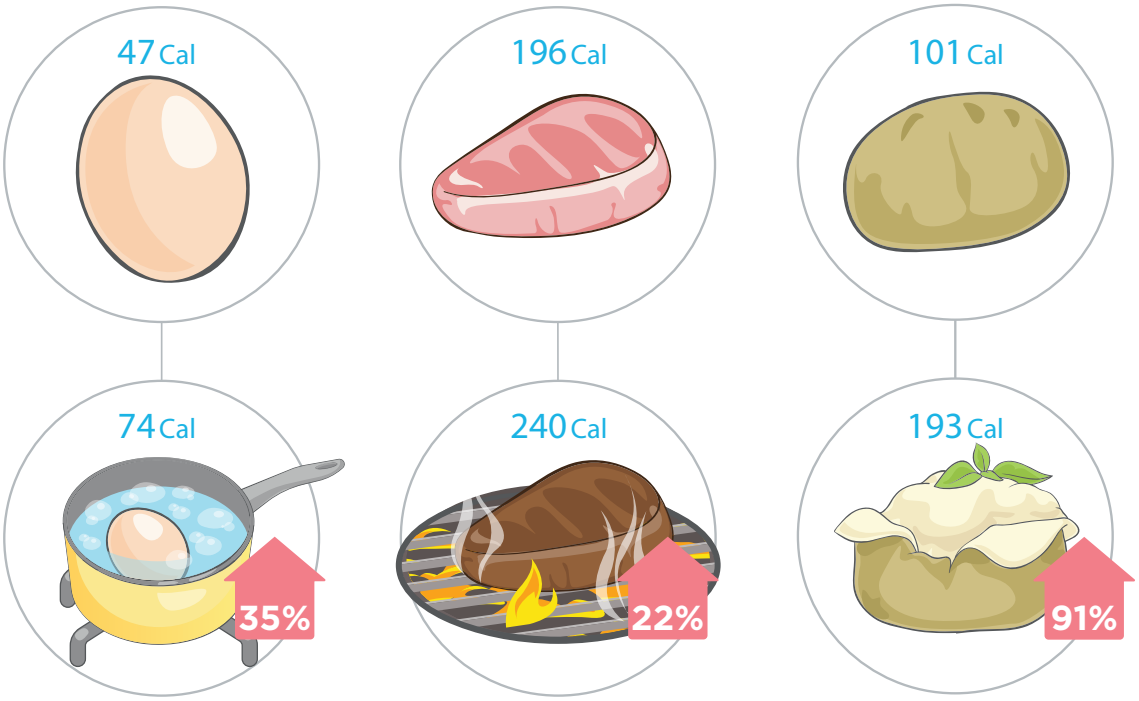
BLACK BEANS (COOKED)

And another example: It turns out that the number of calories available for absorption from protein-rich foods is much more variable than the formula calculates.

ERROR: 10% ON AVERAGE

3 HOW YOU PREPARE FOOD CHANGES ITS CALORIE LOAD.

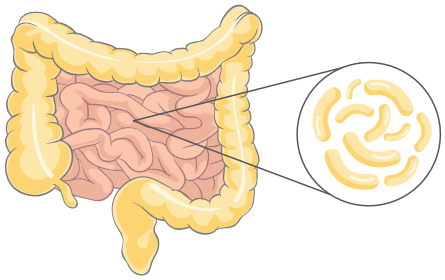
Cooking your food generally makes more of the calories available for absorption, and food labels don't always reflect that.



CHOPPING OR BLENDING YOUR FOOD ALSO INCREASES CALORIES ABSORBED.

ERROR: UP TO 90%

4 INDIVIDUALS ABSORB CALORIES UNIQUELY (AND VARIABLY).



Our own individual gut bacteria can increase or decrease the calories we absorb.

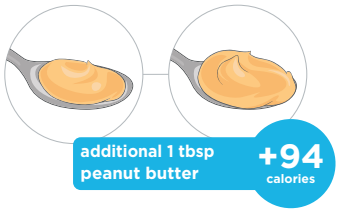
People with a higher proportion of Firmicutes bacteria absorb an average of

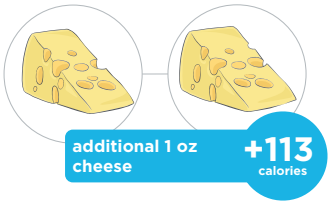
150 calories PER DAY MORE

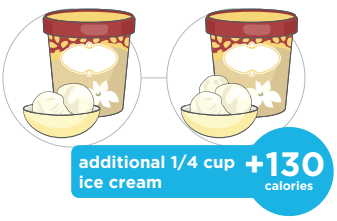
than those with a higher proportion of Bacteroidetes.

5 PEOPLE AREN'T GREAT AT EYEBALLING PORTION SIZES.

Studies show that people mis-measure portions about two thirds of the time, so it's easy to accidentally consume a lot more calories than you intend to.







PUTTING IT ALL TOGETHER

Because...

Calorie counts are imprecise;
We don't absorb all of the calories we consume;
How you prepare food changes its calorie load;
Individuals absorb calories uniquely and variably; and
People aren't great at eyeballing portion sizes...

...calorie counting may not be worth the work.

TOTAL ERROR WHEN COUNTING 'CALORIES IN':
UP TO 25%

SO, WHAT'S THE SOLUTION?

For a much easier portion measurement system, see

The Surprising Problem with Calorie Counting, Part 2