her table for one

TEXT BY PAM BAKER

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FAT FOOLERY AND THE SCIENCE OF JIGGL

The holidays are over but the leftovers are still hanging around – right around my belly button area. Thankfully, I don't have to feel guilty over the extra jiggle in my wiggle because I just found out that a virus causes weight gain, so clearly the extra pounds are not my fault! I kid you not; the esteemed Dr. Nikhil Dhurandhar of the Pennington Biomedical Research Center in Baton Rouge, part of the Louisiana State University System, has let us all off the hook!

He discovered that the AD-36 virus infects humans and chickens and causes them to increase fat storage 2.5 fold. That means that for every spoonful of Christmas pudding I ate, 2.5 spoonfuls landed on my thigh! OK, so I wiped that off, but the pudding effect is magnified by the virus, says the good doctor.

AD-36 is one of 51 types of adenoviruses, most of which cause upper respiratory infections and stomach flu. All of them are spread by someone coughing. So, I am not fat. I'm merely sick and it was totally unavoidable! Who knew?

A cure is possibly on the horizon. Another pedigreed team of scientists at MIT found a single protein that controls whether a mammal stores fat or sheds it. Essentially, the protein is a survival tool designed to tell your body to burn fat when the food supply is low. That's why dieting works; your body adjusts to survive on the lower number of calories by grabbing extra energy stored in fat cells.

There's another big benefit to restricting calories: The researchers say that the same protein that dictates that fat be burned also releases a hormone that slows aging and extends life span, while drastically reducing the chances of age-induced diabetes or cancer.

The MIT researchers are working on perfecting a drug that tells your body to lose fat cells regardless of what you eat. Losing fat and maintaining your ideal weight may be as simple as taking a pill or getting a shot. A side-effect of the miracle drug would be longevity and a more youthful appearance for many, many more birthdays. The day when people can eat their favorite foods, stay thin and live to be 120 may be closer than we think.

Until now, drastic low-calorie dieting was the only regimen known to lengthen the life span of mammals such as mice and rats. One conventional theory for why this works is that in order to conserve energy while existing on a minimal amount of food, the body's metabolism slows down thereby slowing the aging process.

Consuming fewer calories means more fat is burned and, thus, you can eventually fit into a sexy size 8 dress. But, get off the diet, and nine out of 10 times your weight skyrockets back to its original chunky size. And it's all because of this protein, say the scientists, that turns sections of your DNA on and off, like a light switch, in order to regulate your weight to a genetically preprogrammed number.

Essentially it's a genetic leftover from eons ago. While storing fat to get through the lean times was an important factor in the survival of cavewomen, who ate only when they literally could catch a meal, it's hardly necessary today in a world where there is a fully-stocked grocery store on every corner and a dozen good restaurants in-between.

Nonetheless, researchers are not talking about destroying t gene or the protein, but merely "tricking" them into reacting though you hadn't gorged on Aunt Susan's blueberry pie aft dinner! The sinful carb is blessedly ignored by the fat cells; other organs benefit from the sugars, fiber and vitamins a plentiful and varied diet provides.

Specifically, the researchers have identified a gene called SIR2, an enzyme that activates proteins associated with DN in chromosomes. "This would explain its ability to 'silence' turn off whole sections of the genome," says MIT Professor Biology Leonard Guarente, who has been studying the aging process in yeast, roundworms and mice for more than a decade.

In each cell, some genes are active, or turned on, while others are silenced. For example, our skin cells are genetical identical to brain cells, but each is programmed before birth express certain characteristics and not others. The drug will similarly "silence" the section that commands fat be stored. This means that the drug could conceivably reduce fat stored on and around internal organs, a far bigger health problem th back-fat lapping over low-rise jeans.

To engage this weight-loss, anti-aging protein naturally, a woman would have to reduce her caloric intake to half the recommended amount (down to roughly 1,000 to 1,200 calories a day). That, say researchers, would create a very le cold, unhappy person with no sex drive. "It would be like eating only every other day," says Leonard.

But, if the body can be led to believe that a bag of chips pl a handful of cookies, a couple of milkshakes and three meals day equals that same near-starvation level, then the excess food would simply be eliminated in the usual way through t digestive tract. Depending on drug dosage, existing fat woul burn off or the fat cells would lie dormant, storing nothing. we make a drug that would fool the body into thinking that i needed to release that fat, maybe people could get the benefi of calorie restriction without the side effects," he says.

Does that mean we can skip exercise once the drug is wide available? And, what about complications, such as reduced resistance to disease?

"Evolutionarily, you would think it would make humans more resistant to infectious disease," Leonard says. "But, yo never know." Extensive testing, he adds, will be required before the drug could be released for human use. He suspect that vigorous exercise will also be required in order to build and maintain muscle tone. Seems we'll all be skinny and flabby instead of fat and flabby if we don't keep up the exercise.

See you at the gym!