

MIDLIFE WEIGHT GAIN: HARBINGER OF DIABETES

By David B. Wright, MD

You're quite likely to hear someone bemoaning their weight gain characterize it as "the middle-age spread" or observe "my metabolism must be slowing down."

The truth is that in Memphis, the Mid-South and across America midlife weight gain is insanely common. However, it is not normal!

In just one generation, the number of Americans who are overweight or obese has nearly tripled. NEARLY TRIPLED! Think back to when your grandparents were your age, or better yet, pull out some pictures from that era. Things have changed and not for the better.

Controllable lifestyle choices – things like nutrition, activity, sleep, and stress management -- are all to blame, medical researchers have confirmed. Genetics are important. Yes, our ancestors gave us our genes. However, we determine how we play the hand we are dealt. And we have, many of us have made ourselves unhealthy!

Nutritional experts have known for years that fat cells are designed to store calories until they are needed in time of famine. The old adage is "calories in minus calories out equals calories stored or burned." However, some of us are more efficient at storing those calories, and less efficient at retrieving them from storage. Let's look at what the latest science tells us.

Insulin is a life-giving, life-saving hormone. Without insulin, a person dies within a matter of days. Insulin is designed to allow our cells to easily burn sugar for the energy it contains. Hence the burst of energy, or "sugar high" that children get from eating candy or drinking sugared beverages and the tendency of fatigued adults to gravitate towards those and starchy foods that are easily turned into sugar. Our bodies prefer to burn this readily available fuel for our moment to moment needs.

The pancreas exquisitely monitors sugar levels so it can precisely match the dose of insulin needed to the supply of sugar we provide to produce the energy we need!

This is well and good, as long as your insulin system is working properly.

Yet nearly 2 of every 3 Americans suffer insulin system damage known as insulin resistance. Insulin resistance signals that the affected person must over-produce insulin in order to adequately burn the sugar available for energy.

How does this happen? In some cases, heredity is the culprit. Researchers have found that 50% of the children of an adult diabetic are likely to have inherited the same tendency. More frequently, however, insulin resistance results from placing chronic excessive demands on the system. Under the stress of poor nutrition and sedentary lifestyle, or both, the insulin system becomes damaged.

This is equivalent to a person who becomes deaf, either from heredity or from chronic exposure to loud noises—the ear becomes “resistant” to sound waves, and so more sound (volume) is needed in order to hear!

Unfortunately, insulin overproduction begins silently, and progresses for years before any symptoms or abnormal test results (“your blood sugar is a little high”) signal the problem. And while the medical authorities began writing about this condition in the 1980’s, insulin resistance is still under-diagnosed and under-treated.

I tell my patients, “Insulin does one good thing—it keeps you alive!” When overproduced, however, insulin does four very bad things.

1. Insulin acts like “fat fertilizer.” Through a variety of mechanisms, it tells our body to store calories, especially sugar calories, in our fat cells, and ignore burning stored calories as a source of energy. This stored fat tends to accumulate around our waist lines, fueling the “middle-age spread.”
2. Insulin acts like “plaque fertilizer.” Through a series of well-studied mechanisms, insulin accelerates plaque growth within the arteries and so increases the risks of heart attacks and strokes. Among diabetics, 80% will have a heart attack or stroke.
3. Insulin acts as an “inflammation trigger.” Medical science confirms that our own immune system attacks arterial plaque as if it is a foreign invader. Just like a splinter causes your finger to become inflamed, red, hot, and swollen, until it finally “spits out” the splinter,

inflammation in the artery leads to “plaque rupture” that causes blood to clot quickly, blocking blood flow and triggering the heart attack or stroke. That’s why you hear about the use of “clot busting” drugs when a heart attack or stroke begins.

4. And finally, the chronic overproduction of insulin over time causes the pancreas to fail, insulin levels to drop, and the onset of full-blown diabetes.

As a primary care physician for more than 30 years, this is very scary stuff. Yet it does not have to be that way!

The good news is, our lifestyle choices are indeed, *our choices!!!* Diabetes and arterial diseases that cause heart attacks and strokes are preventable!

Here are some well-studied recommendations to help you start a conversation with your doctor about how to improve your insulin responsiveness.

- Follow a low glycemic nutrition plan designed to “turn off” the insulin and “turn on” fat burning and promote 1-2 pounds of excess weight loss weekly by limiting the sugary and starchy foods.
- Check your waistline just above the hip: optimal for men is below 36; optimal for women is below 32; higher than 40 inches for men and 35 inches for women signals increased health risks.
- If overweight or obese, aim for a minimum 7% total weight loss.
- Work up to 150 minutes per week of moderately brisk walking or similar activity.
- Do a muscle strengthening work out 3 days per week.
- Discuss High Intensity Interval Training with a professional trainer, once cleared by your doctor.
- Get 7-9 hours of sleep every night. Both more and less impact your insulin system!
- Learn to constructively defuse the stressors in your life.
- Increase soluble fiber intake through diet or sugar-free supplements.
- Discuss adding 2000mg of a cinnamon supplement with your doctor.

- Discuss checking your Vitamin D level, and taking a supplement if abnormally low.