

A lighthouse costs less than shipwrecks.



Prevention costs less than disease.

The National Insulin Resistance Council

A not-for-profit disease prevention organization

What's the Problem?

More than one in every ten of us has *insulin resistance*, yet most of us don't appreciate how wide-spread it is, or how pervasively it affects us in society. Most of us know someone who is a victim of it, though few of us know that we do, or what its affect is. For those with *insulin resistance*, the implications are very serious, yet even most afflicted individuals don't learn about it until they become alarmingly sick and some not even then. Many medical professionals want, and need, a better understanding of the facts so they can do more for their patients. Because this problem casts such a long, if unrecognized disease shadow, we all become its economic victims.

Everyone knows that insulin is essential to metabolize energy. How many know that *insulin resistance*, when active, causes a person to have *too much* insulin? Even many diabetics have too much insulin, as odd as that sounds. The complex operation of *insulin resistance* and the multi-faceted role of insulin at the body's bio-chemical level are not that familiar to many health care professionals, and hardly at all among the general public. There are still significant mysteries about how *insulin resistance* works and how it becomes activated, but the broad outlines are known. There is even less mystery about the damage it does.

In short, excess insulin hurts its host in two important ways and a third if the host is a woman. First, excess insulin silently and gradually erodes blood vessel and some nerve tissue until significant breakdowns occur which take the form of hypertension, diabetes, heart disease, and stroke, among others. Second, excess insulin puts the body into fat-making mode and keeps it there, thus making it hard to lose extra pounds. Third, excess insulin disrupts a woman's fundamental hormone balance, often creating serious reproductive issues.

You might expect that the consequences of a condition so unfamiliar would be pretty limited. After all, if it were really bad, wouldn't it be on the news all the time? Consider that 400 thousand fatal heart attacks occur each year, half of which are linked to *insulin resistance*. Consider our 21 million active diabetics and over a million more new ones each year, and the more than \$120 billion we spend on their care. Consider the cases of adult blindness, kidney failure and limb amputations that come from among just the diabetics, by far the number one source of these devastating problems. Consider that *insulin resistance* is a primary contributor to our obesity epidemic and, recent research shows, has a suspected, yet logical connection to Alzheimer's disease. *Insulin resistance* may be under-appreciated, and poorly understood, but its effects are anything but limited.

Should we passively wait for so many of us to get sick that there may not be enough doctors to treat us, nurses to care for us, or money to pay for care? Should we passively wait for profit-driven drug companies to create magic bullets that may never come? Or should we adopt a plan of action, especially if that plan keeps us healthy, not merely tends to us once we're sick? The portion of our population over 65 years old is about to double as boomers age into this

category, the prime diabetes, stroke and heart disease victim pool. A third of our teens are overweight or worse. Doctors are reporting type 2 diabetes cases among patients of ever younger ages. If the number of new diabetes cases increases at only the rate of predicted population growth, which is far slower than its real growth rate, by 2020 we will have 9 million more diabetics than we had in 2001, for a total of over 25 million sick people. Diabetes alone is already the number six cause of death in America. Should we wait or act?

Routine clinical and insurance practices combine with passive government policies in a way that masks the problem, making it worse. Seeing if you have *insulin resistance* is not a part of routine check ups, often not even when you display related symptoms. Even if doctors wanted to routinely test for excess insulin, this simple blood test is not covered unless the patient is already sick. Government agencies like the CDC do not keep track of case statistics as they do with other conditions and diseases. A few States have implemented policies that encourage citizens to know more and behave smarter, but only a few. [To see our **Policies** background paper, click [here](#)].

Ironically, empirical research has convincingly shown that those with *insulin resistance* can defer and even avoid most or all of its consequences. But action, not waiting, is required.

Most of us realize that too many calories are bad, but how many know that calories from one food can be far worse than the same number from another. The best and most recent measures of energy content of food, like *glycemic load*, are hardly familiar, let alone in common use on food labels or recipes. [To see our **Energy** background paper, click [here](#)].

Burning calories translates, for most of us, into exercise, since our normal daily activities just don't burn enough compared to what we consume. Exercise has benefits in addition to burning excess calories, but there is still much to be learned about quality, quantity and effect. There is also a big gap between generalized "Exercise is good for you" advice and personal guidance that evokes confidence, commitment and results. [To see our **Fitness** background paper, click [here](#)].

We also have some say over how much weight we carry. This feeds on itself (pun unavoidable) because of *insulin resistance*. Not only is excess weight the most likely activation trigger for it, but it seems to aggravate it disproportionately. Some level of excess weight triggers insulin resistance which yields excess insulin. Excess insulin turns accentuates fat-making leading to an upward spiral. [To see our **Obesity** background paper, click [here](#)].

Together, this tableau of genetics, activation, excess insulin, energy impacts, extra weight, exercise deficits, and public, clinical and insurance practices combine as the ingredients of this big, costly and sad problem. The shape of the problem is what we do or don't do about insulin resistance by changing the ingredients. The result of the problem is the millions of preventable diabetes, stroke, and heart and other non-infectious disease cases that we don't, but can prevent.

The goal of the National Insulin Resistance Council (NIRC) is to *prevent* millions of non-infectious disease cases caused by *insulin resistance* including diabetes, heart failure, stroke and recently-linked Alzheimer's. NIRC sponsors, operates, and collaborates with others on programs that lead to *early identification* of insulin resistant individuals and *active prevention* programs to keep them healthy years longer.

