The Potbelly Syndrome

How Common Germs Cause Obesity, Diabetes, and Heart Disease

There is growing evidence that most chronic health problems, from arthritis to weight gain, are caused by infections.

To be more specific, research shows that most chronic illnesses are caused by the *adaptations* that our bodies make to fight chronic infections. Without the adaptations, germs would kill us in a few days; with the adaptations we live for many years. We don't live as long or as well, however, as we would have lived without the infections.

The Potbelly Syndrome focuses on the infections and adaptations that cause heart disease and potbelly syndrome (obesity, high blood pressure, and type 2 diabetes).

Middle-Path Germs

Our immune systems kill most germs in hours or days. Other germs, much rarer, overwhelm our immune systems and kill us in days or weeks. There are a few germs, however, that follow a middle path; they can't kill us and we can't kill them. These middle-path germs wage guerrilla wars against us for as long as we live.

Two of these germs cause so much suffering and grief that they deserve special attention. The first is a bacterium called *Chlamydophila pneumoniae* (CPN). The second is a herpes virus called cytomegalovirus (CMV). Both germs are linked to dozens of illnesses and both suppress our immune systems. The suppressed immunity makes us more susceptible to other germs.

Don't Blame Yourself!

We are told over and over that if we ate less and exercised more we would be as slender and frisky as spring chickens. That is simply not true.

The germs that cause obesity, diabetes, and heart disease are very common, and you can't avoid them unless you live in a germ-proof bubble. You can't kill them with vitamins or herbs, and no amount of exercising or dieting will reverse the adaptations that your body made to keep you alive.

Inflammation & Cortisol

Every time we are attacked by a new germ, the immune system adapts to it by starting an *acute phase response* (APR) designed to kill that specific germ. APRs use inflammation to kill germs, then they use a stress hormone called *cortisol* to protect us from the inflammation (Figure 1).

Each APR remains active until its germ is eradicated. There are some germs, however, that APRs cannot eradicate, and these germs—and their APRs—stay with us for as long as we live.

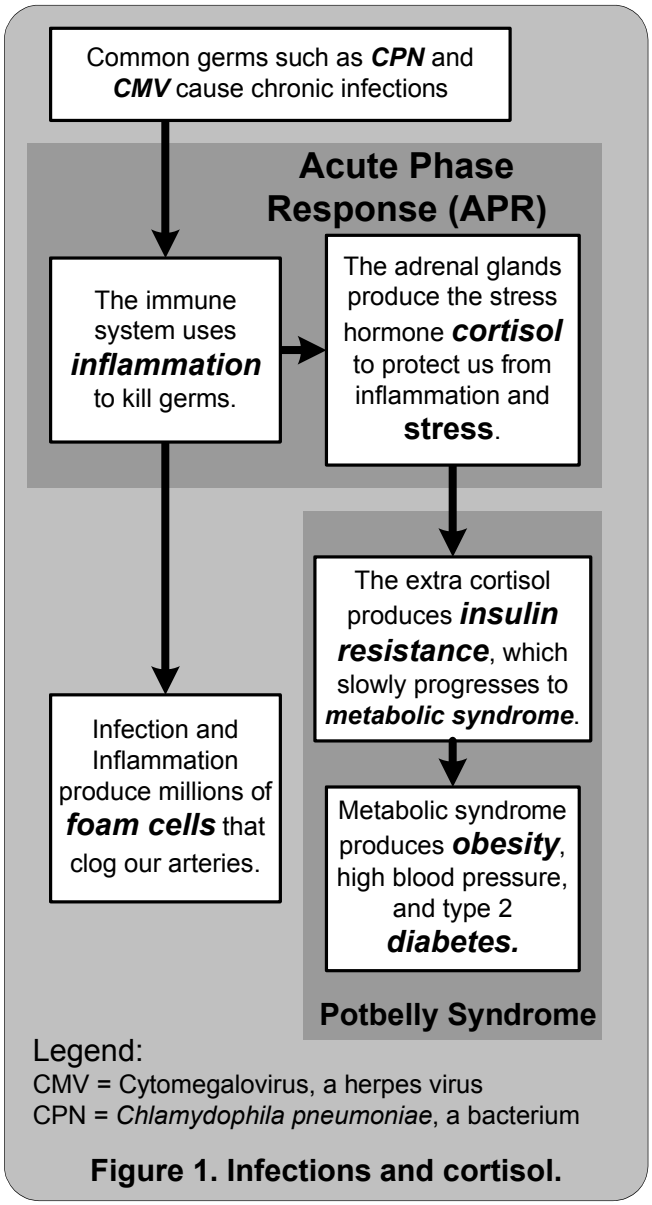

Figure 1. Infections and cortisol.

Foam Cells

Heart disease is not caused by evil blobs of cholesterol looking for arteries to clog; it is caused by white blood cells that are infected with CPN, CMV, or other germs (Figure 2).

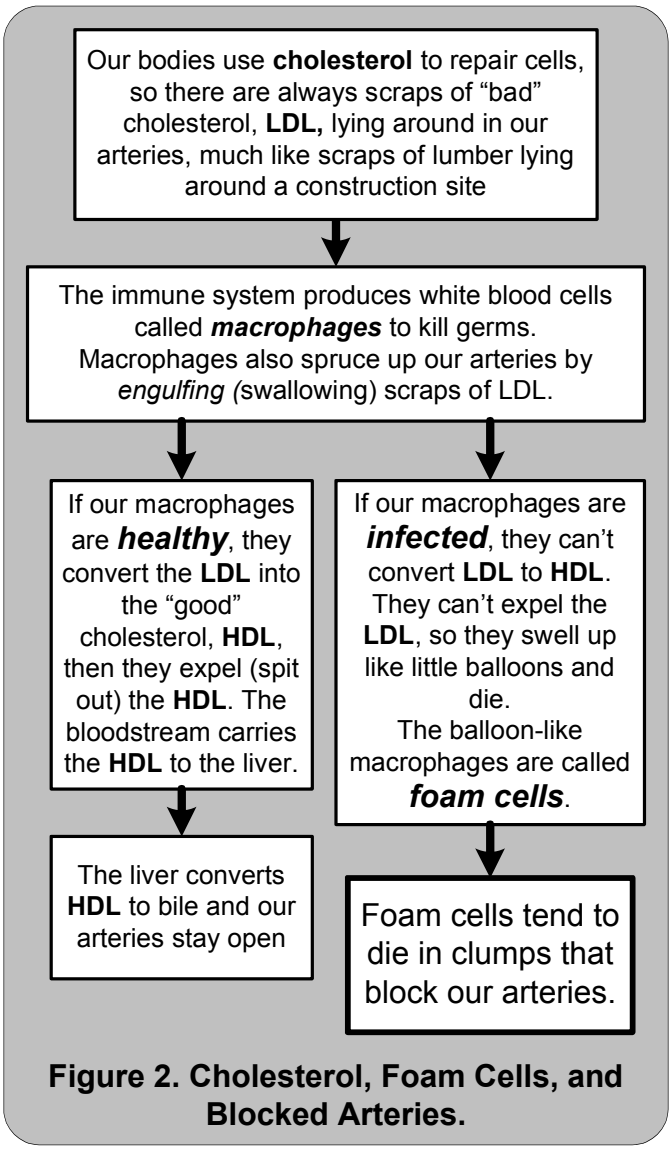

Figure 2. Cholesterol, Foam Cells, and Blocked Arteries.

It is possible, with low-fat diets or "statin" drugs, to reduce our cholesterol so much that infected macrophages can no longer become foam cells. This will reduce our chances of having a heart attack. Unfortunately, when we do this our cells may not get enough cholesterol to repair themselves. This increases our chances of dying from infections, cancer, or liver disease.

A better way to fight heart disease is to kill the germs that are crippling our macrophages. Killing these germs is *very* difficult, but it is not impossible.

Insulin Resistance

Insulin resistance is the earliest stage of potbelly syndrome, and it slowly progresses to obesity and type 2 diabetes. It has no symptoms, but lab tests will show that our blood sugar and insulin levels are marginally higher than they should be (Figure 3).

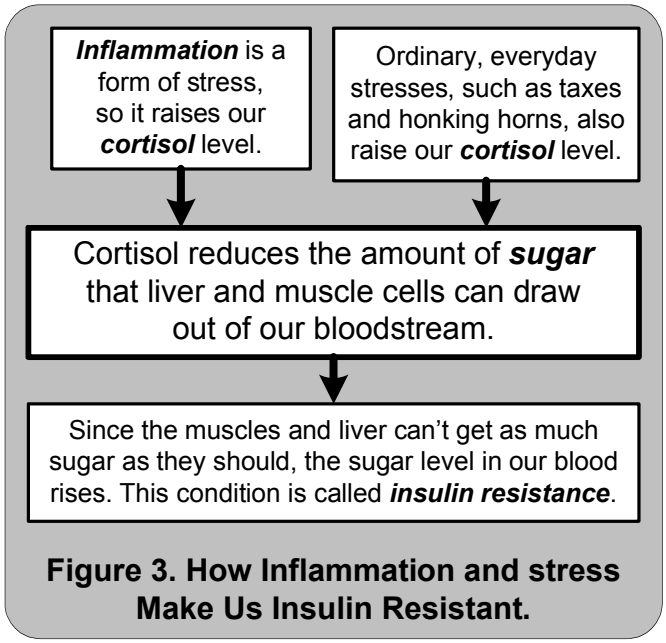

Figure 3. How Inflammation and stress Make Us Insulin Resistant.

Fatigue & Sugar Cravings

It's hard to keep healthy people from exercising—prisons, for example, withhold exercise privileges to punish inmates. When we are insulin resistant, our muscles don't work as well as they should and we get less pleasure out of moving. We feel tired and cranky unless we are munching on "comfort foods" such as cookies (Figure 4).

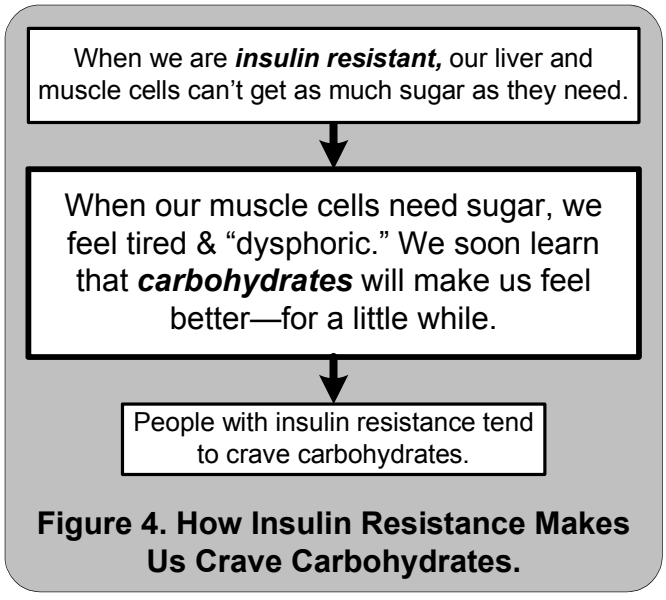

Figure 4. How Insulin Resistance Makes Us Crave Carbohydrates.

Potbellies

Insulin resistance raises our blood sugar, and this makes more sugar available to fat cells (Figure 5).

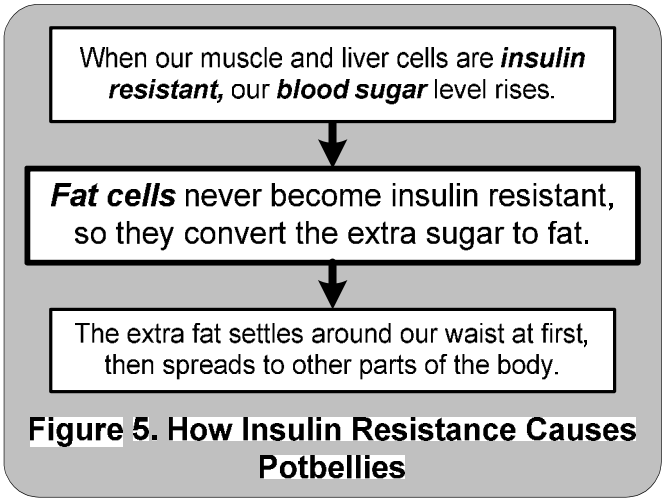

Figure 5. How Insulin Resistance Causes Potbellies

Type 2 Diabetes

In its early phase, insulin resistance is caused by cortisol and it can be eliminated by lowering our cortisol levels. Over a period of several years, insulin resistance becomes self-sustaining and it persists even when we lower our cortisol levels.

This self-sustaining form of insulin resistance is called *metabolic syndrome*, and it becomes type 2 diabetes if we live long enough (Figure 6).

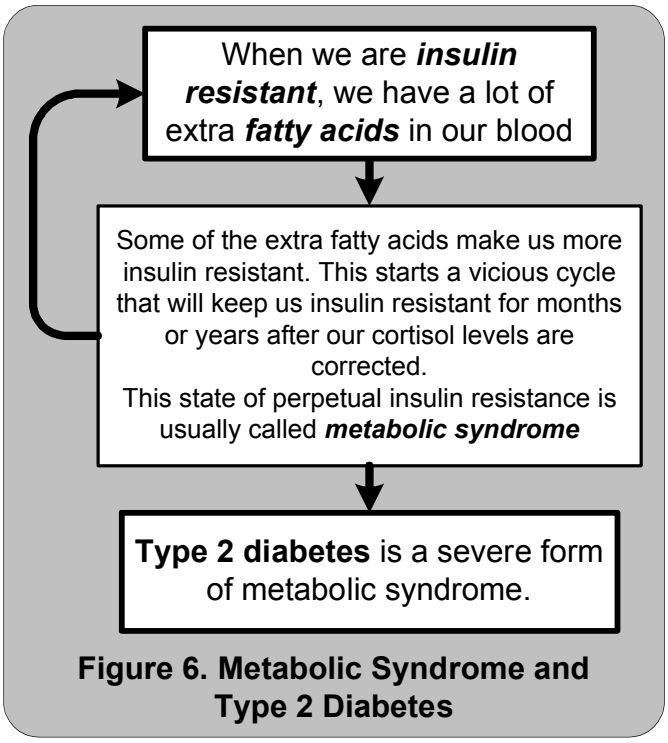

Figure 6. Metabolic Syndrome and Type 2 Diabetes

Diets Make Us Gain Weight!

Every dieter has had the frustrating experience of struggling to lose a little weight, then regaining all that was lost plus a few extra pounds. Figure 7 shows why this happens.

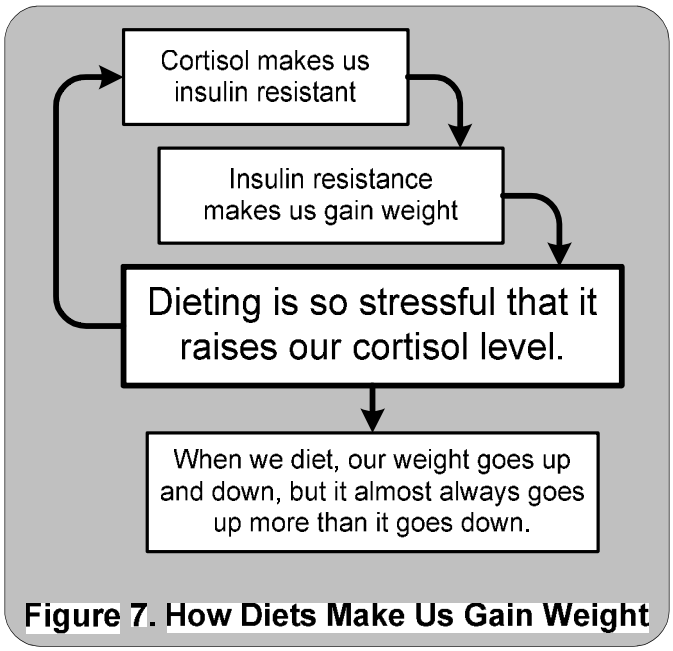

Figure 7. How Diets Make Us Gain Weight

High Blood Pressure

High blood pressure is one of Mother Nature's adaptations to help us survive stress, infection, and heart disease. Unfortunately, the benefits of high blood pressure come at a very high price (Figure 8).

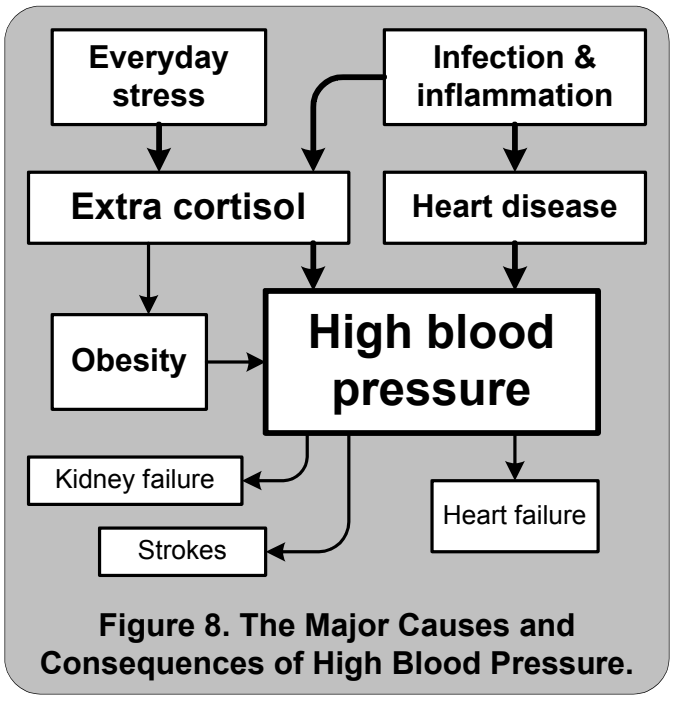

Figure 8. The Major Causes and Consequences of High Blood Pressure.

Find the Right Doctors

If you have heart disease or potbelly syndrome, the most important thing you can do for your health is to find doctors who understand chronic infections, inflammation, cortisol, and insulin resistance. Two places to look for infectious disease specialists are:

- ***http://www.cpnhelp.org***, a website dedicated to fighting *Chlamydophila pneumoniae* (CPN) infections.
- ***http://www.lymediseaseassociation.org***, the website of the Lyme Disease Association.

It will be harder to find doctors who thoroughly understand inflammation, cortisol, and insulin resistance. If you like your current doctor, give him a copy of this document and let him mull it over for a while. If, when you see him again, he orders tests for CPN, CMV, CRP, ALT, and AST, or he tells you he is reading *The Potbelly Syndrome*, then you may have found the right doctor.

For More Information . . .

For details and references for the ideas summarized here, refer to ***The Potbelly Syndrome*** **(ISBN 1-59120-058-X)**. It is available in libraries, bookstores, and from hundreds of vendors online.

If you or your doctor have any questions, doubts, or suggestions, please contact us via our website at ***http://www.potbellysyndrome.com***.

If you enjoy reading scientific materials, you can double-check our ideas and references at the National Institutes of Health's PubMed website, ***http://www.pubmed.gov***.

The Potbelly Syndrome was influenced by several ideas from evolutionary medicine. If you are interested in this topic, you may want to read *Plague Time* by Paul Ewald, *Why We Get Sick* by Randolph Nesse and George Williams, *Parasite Rex* by Carl Zimmer, and anything written by Robert S. Desowitz.

Excerpts from Reviews . . . .

[This book] is written in a lively way with an oft-humorous touch. My admiration for this book has only grown since I first glimpsed the manuscript four years ago. It belongs in every doctor's library. *Richard Huemer, M.D., in the Journal of Orthomolecular Medicine Vol. 21, No. 2, 2006.*

Would I buy this book? Yes. I recommend it warmly. . . . the medical establishment is on the verge of accepting persistent and unresolved intracellular infection as a cause of much chronic morbidity. *David Wheldon, MB, FRCPath, on www.cpnhelp.org.*

"The Potbelly Syndrome" may lead to a rethinking of one of the most common yet challenging health conditions. A welcome addition to both academic and community library Health & Medicine collections, "The Potbelly Syndrome" is directly accessible to the non-specialist general reader, and has substantial value and appeal to health professionals as well. *Midwest Book Review.*

This is one of the few health related books that I have read that does not put all of the blame for weight problems on the overweight person. *Linda Cooper, on www.amazon.com.*

I've found many profound ideas here. . . . [Farris] had me practically in stitches. . . . If this was on Oprah, I missed it. If it wasn't, I believe it should have been. *E. Ellerbe, on www.amazon.com.*

This book also confirmed for me that I was not crazy, and my symptoms are real and can be treated. . . . I would highly recommend this book to everyone who wants to stay healthy and feel great. We need more books like this! *Patricia Duty, on www.amazon.com.*

This book has changed my thinking more than any other so called "diet" book out there. *Lisaannevictoria, on www.amazon.com.*

About the Authors

Russell Farris is a retired artificial-intelligence researcher who spent most of his life solving problems for the U.S. Navy. After having a heart attack in 1998, he began to apply his problem-solving skills to the study of heart disease and related illnesses. He lives in San Diego, California.

Per Mårin, M.D., Ph.D., is a distinguished scientist, physician, and clinical teacher from Sweden. He has been writing about obesity since 1985, and many of his eighty-two publications deal with the effects of cortisol on weight and health.