

An eBay advertisement banner featuring a yellow box with the text "What's on eBay right now? Roll over and find out!". To the left is a "You Want To" graphic, and to the right are images of a Super Mario Bros. game box and a teddy bear. The eBay logo and "Shop Victoriously" slogan are on the far right.[Back to Article](#)[Click to Print](#)

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Silent Killer

By Phil Zabriskie/Hong Kong

Earlier this year, Chan Tak "Anson" Shin developed a rash on his leg that wouldn't heal. Not overly concerned, he visited a doctor near his home in Hong Kong's New Territories and underwent a string of blood tests. The diagnosis? Type 2 diabetes, long known as "adult-onset diabetes." Genetically speaking, Anson was an ideal candidate for the disease. Both his grandfathers had suffered from it in their later years, as did his father and two uncles. And, by his own admission, Anson led a less than healthy lifestyle, spending most of his spare time playing a computer game called *Heroes of the Three Kingdoms*. He loved to eat too. He'd scarf down bags of potato chips at a sitting, and he dined at McDonald's and Pizza Hut several times a week. But in another sense, Anson was a shockingly unlikely victim of adult-onset diabetes. He was, after all, just a kid ♦ a regular, somewhat plump 13-year-old boy.

Diabetes isn't behaving the way it did in the past. Forget your former notions of the disease: that it strikes old aunties and the rich, or that it seldom kills. Diabetes no longer cares about class distinctions or age ♦ it's becoming as prevalent in Asian slums as in mansions, and it's ravaging the young like never before. The numbers are staggering. The World Health Organization (WHO) estimates that 177 million people worldwide have diabetes, a figure that's expected to surpass 300 million by 2025. Dr. Paul Zimmet, director of the International Diabetes Institute (IDI) in Victoria, Australia, predicts that diabetes "is going to be the biggest epidemic in human history." It has also increasingly become an Asian disease. Today, some 89 million Asians are thought to be diabetic, and four of the five largest diabetic populations are to be found in Asian countries. India has an estimated 32.7 million people with diabetes, according to the IDI. China has 22.6 million, Pakistan 8.8 and Japan 7.1.

The disease is also spreading more rapidly in Asia than anywhere else. Asia's count is expected to hit 170 million by 2025, with India and China together accounting for almost 100 million victims. Most of Asia is hopelessly unprepared for this health crisis, which will inundate hospitals and place increasing pressure on national healthcare budgets. But the toll of this disease is ultimately more personal and painful than these numbers can convey. You may be susceptible yourself ♦ your kids, too.

Diabetes attacks the body slowly and stealthily, leading to a common misconception that it's a relatively benign condition. Initially, it produces only subtle symptoms such as excessive thirst and frequent urination, so the patient is often unaware that anything is wrong. "Half the people with diabetes don't know they've got it," says Zimmet. "It's a silent killer."

In a healthy body, the pancreas releases the hormone insulin, which transforms blood sugar into energy. Diabetes interrupts the process. Untreated or unrecognized, the disease causes excess blood sugar to build in the veins. It gradually clogs blood vessels, damages body tissue, wrecks the eyes, the kidneys, the heart. This invites a host of miserable fates: strokes, heart disease, high blood pressure, kidney failure, blindness, amputations due to the loss of circulation. "Mortality statistics seriously underestimate its impact," says Dr. Hilary King, director of the WHO's diabetes unit, "since most people with diabetes die from its consequences rather than the disease itself."

There are two varieties of diabetes. Type 1 ♦insulin-dependent diabetes♦ is an inherited autoimmune affliction wherein the pancreas doesn't produce insulin. In the old days, children who were forced to inject themselves with insulin before school each day were nearly all in this group: they were born with the disease, and they will die from it if they do not take insulin regularly. Arun Elayaperu-mal, a 16-year-old from Chennai, India, was diagnosed as Type 1 when he was barely three, though his family apparently had no prior history of the disease. "My wife and I were completely shattered," says Arun's father, Elayaperumal, who works at a zoo on the city's outskirts. The family couldn't afford insulin, but a local hospital gave it to Arun for free. Even so, his vision began to fail, and he went blind at 12. "I still remember climbing trees and playing cricket, and the colors of the animals," says Arun. He has thrived in a special school for blind and deaf children and now hopes to be a teacher. But his family was jolted anew when his sister, Elakkiya, was also diagnosed with Type 1. She was only two-and-a-half years old.

Type 2 is the strain most of us have to fear. This is the real epidemic, accounting for 90-95% of diabetes cases worldwide. In this form, the pancreas isn't the problem. It does its job of producing insulin, but for some reason scientists haven't been able to fathom, it either doesn't produce enough or the body fails to employ the insulin as it should. The effect can be devastating.

A decade ago, a case like Anson's would have been startlingly rare. No longer. Type 1 is still the most common form of the disease in children, but experts believe the opposite could be true in the next 10 to 20 years. "There is an alarming shift downwards in the age of onset," says Professor Clive Cockram, vice president of the WHO-affiliated International Diabetes Federation (IDF). "These days, we're seeing far more patients who are under 40 and under 30," agrees Dr. Sum Chee Fang, director of the diabetes center at Singapore's Alexandra Hospital. Children are showing up in increasing numbers, too. In New Delhi, Yash Gupta was diagnosed with Type 2 at age 11 on a visit to the doctor for something so mild his mother can't remember what it was. In Japan, 80% of new cases in children are Type 2, some as young as nine. "We've even found a few Type 2 diabetics among kids below six," says Dr. Tsai Shih-tzer, president of the Taiwanese Association of Diabetes Educators.

The obvious question: What's speeding the sweep of Type 2 diabetes across Asia? Above all, it's a matter of lifestyle. The shape of Asia is literally changing, and many are inclined to blame it on Western-style food, personified by ubiquitous chains like McDonald's and KFC. Shigetaka Sugihara, a professor at Tokyo Women's Medical University, says simply that kids with Type 2 have "the Western type of diabetes." Likewise, Zimmet speaks of the "Coca-Colaization" and "Nintendoization" of Asia. Of course, fatty foods were popular in Asia long before globalization—from fried pork in the Philippines to dim sum in China. But as unhealthy foods become more widely available, it's no surprise to find kids eagerly devouring them, and washing them down with sugary drinks. It doesn't help that they also spend more time indoors than their forebears, seduced by TV or computers—much as their parents' generation has increasingly taken to driving instead of walking, and to typing memos instead of farming.

Evolution also comes into play. Researchers cite the theory of the "thrifty gene," which posits that the human body is designed to survive periods of feast and famine—the bountiful seasons of harvest and hunting followed by the inevitable fallow seasons. Food consumed in times of plenty is stored away for later use. Today, despite rampant poverty, there is more food available to the average person—a perpetual state of feast. The Worldwatch Institute in Washington, D.C., announced in 2000 that for the first time ever, there are as many overweight people on the planet as there are undernourished. Although the average Asian isn't nearly as large as the typical American couch potato, any excess fat can upset the regulation of blood sugar. Indeed, Zimmet uses the word "diabesity" to describe this phenomenon.

Anson, now 14, is a prime example. He isn't huge, but at 170 centimeters he already weighs 77 kilograms. That's clinically obese. And for Asians, the danger of being overweight appears to be greater: recent reports in 10 countries found that Asians are more likely to encounter the risks that come with obesity and diabetes than Westerners of identical height and weight. (Another conclusion of the studies was that Asians on the whole exercise less than Westerners.)

There is some evidence that certain ethnic groups—primarily Chinese, Indian and Malay—are more disposed to diabetes than others. They're especially at risk when they abandon traditional diets or lifestyles. Hence, abnormally high rates of Type 2 diabetes are found in the Chinese and Indian populations of, say, Mauritius. If a person moves from a village to a city, you would expect psychological consequences, such as homesickness and feelings of isolation. A similar process occurs inside the body. The changes trigger a kind of biological trauma that, among other things, upsets the processing of blood sugars and can lead to diabetes. The disease, explains Zimmet, is "spreading the way society is changing."

As a result, the disease shows up in Asian cities far more than in the countryside. For example, Thailand has a relatively low rate of diabetes nationwide—4.8%—but that figure jumps to almost 7% in the nation's cities. One of these sufferers is Lumpoon Narinook, 55, who grew up working alongside her parents on their small farm in northern Thailand. Farming or playing, she was almost constantly active. She moved to Bangkok when she was 25 to find work, settling in a one-room concrete apartment in the Klong Toey slums, and her life slowed down.

She became a street vendor, making and selling sweets. Her weight rose, and she began having spells of blurred vision. Thirteen years ago, Narinook was diagnosed with Type 2 diabetes. She had never heard of the disease, and even now she asks if anyone outside Thailand has it. Regular insulin shots have helped stabilize her condition, but one of her five children is diabetic, and she worries about her grandchildren and nieces and nephews, urging them to exercise and stay away from fast food. She's afraid to send them to the nearby playground, however, because she fears they might get robbed or even snatched.

In Bangkok's low-income neighborhoods as many as 20% of the residents are thought to have impaired glucose tolerance, a high-blood-sugar condition that often leads to diabetes. As Bangkok goes, so do other fast-changing, migrant-packed cities in Asia. Only 1.2% of Jakarta's population was diabetic in 1990; in 2000, the figure hit 12%. In Vietnam, less than 5% of people in major urban areas have diabetes, which sounds small but represents a threefold increase in the past decade. And this is only the beginning. According to a 2002 report by the IDF, "the prevalence of adult diabetes in developing countries is expected to increase by 170% between 1995 and 2025" versus 41% in the developed world. To Dr. Warren Lee of KK Women's and Children's Hospital in Singapore, it's all part of a seismic shift away from the more physical lifestyle of our hunter-gatherer ancestors: "Twenty-first-century man is becoming a sedentary person because of the nature of his work."

What to do in a vast continent growing ever more populous, comfortable on the couch, trapped in the embrace of office cubicles and behind fast-food trays? Singapore, that model of social engineering, has come up with a plan. Back in the 1980s and 1990s, the country went through a period of "epidemiological transition," says Dr. Chew Suok Kai, director of the Ministry of Health's epidemiology and disease-control division. In other words, obesity rates shot up, as did the prevalence of diabetes. A study released in September by KK Women's and Children's Hospital showed that 15% of Singaporean adults have diabetes. Among children in general, the rate is low. But it stands at 36% for obese kids.

Unlike most of Asia, however, Singapore has the resources and will to tackle the disease. Several hospitals have departments that specifically treat the disease, and kids are carefully observed at schools: those identified as overweight are placed in special exercise classes. During morning rush hour, streams of uniformed, overweight children jog along the orchid-lined boulevards. Officials dreamed up a \$100 million bond offering to fund a program that promotes healthy living. They've even bullied street vendors into hawking fare made with less oil and are trying to exert the same moral suasion on fast-food joints. The goal, says Chew, is to get the rates below 10% by 2010. He's hopeful; the city-state's incidence rates for diabetes are actually slowing.

Few countries are this proactive. "Let's face it," says Professor Sunthorn Tandhanand, president of the Diabetes Association of Thailand, "our government is already trying to make ends meet, and there are a lot of more-serious diseases out there that need more-immediate attention." (Thailand's list of diseases is pretty much the same as the rest of Asia's, from AIDS to tuberculosis.) Indonesia has 50 diabetes specialists looking after 6 million patients. In Japan, the bill for treating diabetes is \$8 billion, according to the government. But Dr. Shunya Ikeda of the Keio University School of Medicine says the bill is far higher if you include the cost of treating the disease's complications.

And money is just one of the obstacles in the war against diabetes. Cultural factors get in the way, too. Dr. Huen Kwai Fun of Tseung Kwan O Hospital in Hong Kong says she still meets parents who are ashamed when they learn their children have diabetes, and she says children with the disease are sometimes ostracized on the playground or in the neighborhood. For Elayaperumal, father of Arun and Elakkiya, his daughter's diabetes opened a new range of concerns. "We are keeping our fingers crossed and praying that the girl should not lose her eyesight," says her father. "But we are also worried about how we can get her married." Dr. Shobana Ramachandran, assistant director of the M.V. Hospital for Diabetes in Chennai, recalls a young bride who didn't take insulin during her honeymoon because she had kept her diabetes a secret during courtship. The disease does not permit for such lapses: the newlywed fell into a coma and died.

No one would choose to live with this time bomb, but millions must. What's heartening is that they can live with diabetes if they manage it carefully ♦ eating healthily, exercising and minimizing stress. Japanese singer Hideo Murata chose not to take control, refusing treatment even though he knew he was diabetic. He had a heart attack in 1995, lost both legs and died last June.

Few have done so as successfully as Wasim Akram. His first hint that something was amiss came in 1997 when he found himself rapidly losing weight. He felt weak and tired, craved desserts and kept waking at night to urinate. A doctor in Lahore diagnosed him with Type 1 diabetes and told him to go on insulin at once. "I was very down," says Akram. "I had heard diabetes only happened to obese people. I'm not fat." Indeed, at the time, Akram was a world-class athlete, a man of 30 and at the height of his career as a fast bowler for Pakistan's national cricket team.

But Akram refused to let diabetes beat him. After three weeks, he was back on the field. He tested his sugar levels 10 times a day, pricking a hole in each finger to draw blood. He injected himself with insulin three times daily and ratcheted up his fitness regimen, heading to the gym for two hours a day. "I learned that the best way to control the sugar levels is to exercise," he says. Akram also came to quickly recognize signs that he is weakening. "I start sweating and feel hungry," he says, "and I have a chocolate on the boundary line." Only when he's bowling does he miss an insulin shot, since the exertion burns off enough sugar to keep his body functioning without medication.

His efforts have paid off. In 1999, just two years after being diagnosed with diabetes, Akram captained Pakistan to the World Cup finals. Today, he reigns as one of the game's all-time greats: only three bowlers in the history of test-match cricket have taken as many wickets. Next year, Akram plans to retire from cricket and focus increasingly on educating people about diabetes. He's already traveled throughout Pakistan, as well as to Australia and England, to speak about combating the disease by living healthily. "People listen to me," he says. "They think: If he can do it, so can we."

For a kid like Anson, learning to lead a healthy life hasn't been easy. But he's trying. He spends more time nowadays riding his bike and playing football. He makes an effort to eat fruit instead of chips, and he ducks out

when his friends go to McDonald's though he's too embarrassed to tell them why. To regulate his blood sugar, Anson takes a drug called Metformin before breakfast and dinner each day. So far, it's working. But his doctors have warned him: If he can't keep his weight under control, he's likely to end up needing insulin. Anson, who is afraid of needles, shudders at the prospect; for years, he has watched his diabetic father injecting himself with the drug. This life this fear is a heavy burden for a boy of 14. But Anson knows he must be tireless in fighting diabetes; for the disease, as Asia is learning, will be ruthless.

With reporting by Brian Bennett/Lahore, Meenakshi Ganguly/ New Delhi, Jessi Hempel/Hong Kong, Joyce Huang/Taipei, Kay Johnson/Hanoi, Zamira Loebis/Jakarta, Sachiko Sakamaki/Tokyo and R. Bhagwan Singh/Chennai

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