

# TAKING AIM AT A Silent Killer



WILLIAM WHITE

BY CYNTHIA WOLFE BOYNTON

**J**udith Philbin may have been diagnosed with a “silent killer,” but she wasn’t willing to deal with it quietly.

After suffering two years from uncontrolled high blood pressure or hypertension – and from side effects of medications that were supposed to help her – enough was enough. Her heart was skipping beats, her vision was becoming blurred, and she was spending most days feeling generally lousy. It was time, says Philbin, 50, “to start screaming and yelling.

“My primary care doctor tried his best to get my blood pressure under control, but he just couldn’t do it,” says the Vernon, Conn., resident. “He did everything he could, but sometimes you need an expert. And that was the case for me. At the time, I was really scared.” Philbin turned to hypertension expert William B. White, M.D., and the UConn Health Center’s Hypertension and Clinical Pharmacology division, part of the Pat and Jim Calhoun Cardiology Center.

Hypertension is often called a “silent killer” because it can lack symptoms for years until a catastrophic event occurs. The Health Center’s multidisciplinary team of board-certified physicians in endocrinology, nephrology, cardiology and clinical hypertension evaluates the whole patient to search for the root cause, explains White, a professor of medicine who founded the hypertension program more than 25 years ago. His colleagues at the Health Center who are experts in hypertension and its complications include Drs. Beatriz Tandler, Peter Schulman and Apurv Khanna.



## Heading It Off

**B**lood pressure is the force of blood against artery walls. It's measured in two numbers: The top (systolic) number indicates exertion when the heart is pumping. The bottom (diastolic) number indicates the pressure when the heart is resting between pumps. But what do the numbers mean?

Not too long ago, a blood pressure reading between 120/80 and 139/89 mmHg was considered normal. Revised guidelines from the National Institutes of Health now consider those individuals with these readings to have a condition called prehypertension – which means they don't have high blood pressure now, but are very likely to develop it in the near future.

The idea of this category, which has been in use for about three years now, says UConn hypertension chief William B. White, M.D., is to get people to go to the doctor and take action before their blood pressure climbs higher, which in turn puts them at higher risk for potentially devastating health problems such as stroke, heart failure and even death.

With prehypertension, this action generally includes

aggressive lifestyle changes, such as quitting smoking, reducing dietary salt and fats, eating more fruits and vegetables, and exercising more regularly.

As little as 30 minutes of brisk walking five days a week can help lower your blood pressure by as much as four to nine points, and the importance of this can't be stressed enough, White says.

When blood pressure stays elevated over time – sustained readings of 140/90 and higher – the heart is forced to work too hard for too long, leading to possible damage to blood vessels and increasing the risk of heart disease, kidney disease and stroke.

More than 60 million Americans, or one in every four adults, suffer from high blood pressure or hypertension, according to the American Heart Association; and it is directly responsible for approximately 40,000 deaths in the U.S. each year.

To find out more about clinical research trials in hypertension at UConn Health Center, please call 860-679-4116; and for consultation with one of the Health Center's hypertension specialists, please call the Calhoun Cardiology Center at 860-679-3343. ☞

"Hypertension is a major risk factor for vascular disease and stroke," says Bruce Liang, M.D., director of the Pat and Jim Calhoun Cardiology Center, home of the Division of Hypertension and Clinical Pharmacology. "Understanding and improving its diagnosis and treatment are critical, and it's a key part of the strategic plan for the center."

Many patients, like Philbin, suffer from secondary hypertension, meaning they have an underlying – and often difficult to diagnose – medical condition that causes the high blood pressure. In Philbin's case, the problem was a small tumor in one of her adrenal glands. The condition, called hyperaldosteronism, causes an overproduction of the hormone aldosterone, which in turn leads to expansion of fluid volume in the body and increased blood pressure.

Surgery removed the tumor, and almost instantly, Philbin says, her blood pressure went back toward normal.

White was able to accurately diagnose Philbin after just a few weeks of monitoring and testing. For some, this may seem like a long period. But with a condition as complex as high blood pressure, it's really not, asserts White, a clinical hypertension specialist certified by the American Society of Hypertension and a leader in the field.

### NOT A CONDITION TO TAKE LIGHTLY

"High blood pressure is not a condition you ever want to watch and wait," explains White. "The potential damage is too great. In complicated cases, it can take months to find the cause. While we're searching, we try different medications that do not interfere with our diagnostic evaluation to try to get blood pressure levels headed toward normal."

One of the key tools to discovering Philbin's problem was a 24-hour ambulatory blood pressure monitoring device. Similar to the monitor used in doctors' offices, the device is made of a cuff worn around the upper part of the arm. It automatically measures the pressure throughout the day and night, and it includes a small microchip that automatically records levels and stores them for retrieval the next day.

Without question, it's a more accurate way to record a patient's "true" blood pressure, since (with or without the presence of disease) levels normally fluctuate throughout the day, says White, who has conducted numerous studies on the effectiveness of 24-hour blood pressure monitoring. Many people also have higher readings at the doctor's office because they're nervous.

The results of his findings, in fact, have been published in close to 300 articles about hypertension and its treatment in medical journals and books worldwide.

"Many of our patients have had a really tough time getting effectively diagnosed and treated elsewhere," adds White. "Our hypertension center offers expert diagnosticians who will make every effort to determine whether their patients' blood pressure disorder has an underlying etiology and then

take the steps necessary to bring it under control." Many times, it's finding the right combination of medications – a real challenge when patients don't respond to those most commonly prescribed. In fact, with roughly 80 medications approved by the U.S. Food and Drug Administration to treat hypertension, physicians who don't specialize in the condition can find themselves as baffled and frustrated as the hard-to-treat patient, White says.

At the time Philbin turned to White, she was taking four different drugs that just weren't working.

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JUDITH PHILBIN AND WILLIAM WHITE



"I was getting all the side effects, but none of the benefits," remembers Philbin. "I was so fatigued I couldn't get out of bed in the morning, and then I spent most days in a daze. Co-workers would ask me a question, and my answer would be 'huh?' Thankfully, Dr. White realized the medications I was taking were hurting more than helping and changed them right away. I can't begin to explain how grateful I am for what he did for me. I got my life back."

Although Philbin's blood pressure problems were greatly helped by surgery, she continues to take a low dose of one medication daily to prevent excessive blood pressure levels. Hypertension runs in her family, and heredity – along with lifestyle and diet – are among the major risk factors.

Many blame stress for high levels. But while stress can contribute to the condition, it is only rarely the primary cause.

"Before I went to the Health Center, my primary care doctor blamed stress for my high levels," Philbin recalls. "In fact, the day I met Dr. White, I said, 'Listen. If stress is what's causing me to be so sick, I'll quit my job and divorce my husband and kids today, because I just can't take it anymore.' My family and I are grateful it didn't come to that."

## STUDYING NEW THERAPIES

Mystic, Conn., resident Rita Schmidt has spent 30 years battling high blood pressure. She feels that same sense of gratitude, but has taken it a step further. In addition to relying on UConn Health Center's hypertension unit for the best care, she also is helping to advance it.

As a leading research center, the Health Center currently has several hypertension clinical trials or research studies under way. Schmidt is part of one study that is testing the effect of an FDA-approved medication on the prevention of stroke and heart attacks that, if successful, may offer patients like her more effective, long-term results. According to White, it is of utmost importance for physicians in academic health centers such as the Health Center to study and evaluate new and even existing therapies, as there is always room for improvement.

"The last few years, I've had a lot of problems with my blood pressure going too high, then dipping too low," says Schmidt, 76. "Participation in these studies gives me access to the latest drugs – I like that a lot. But it also gives me a chance to help others. High blood pressure is something you're very anxious to have under control." ☺