Most of you are familiar with the phenomenon of cleaning up before the cleaning lady comes, right? Well, for an editor, assigning an article is a bit like that because you have to do some research yourself before you can write an up-to-date assignment letter that hits the important angles. And in the process you learn a thing or two. When I assigned our cover story on blood pressure to veteran medical writer Pam Harrison, I came across two novel developments in blood pressure control designed for the roughly 25% of hypertensive people who can't control their blood pressure, despite multiple medications and lifestyle changes.

One of these is the Rheos Baroreflex Hypertension Therapy System, an implantable, battery-powered device — a bit like a cardiac pacemaker — that activates the body's own natural mechanism for regulating blood pressure. It works by stimulating the baroreflex receptors based in the carotid arteries, the neck vessels that carry blood to the brain.

Inserted under the skin near the collarbone, the device sends the brain electrical signals telling it to take action to lower blood pressure through physiological means. These include dilating the blood vessels, reducing the heart rate and promoting the excretion of fluids through the kidneys.

Still considered experimental, the unit is undergoing clinical trials in the U.S. But according to early results published in the *Journal of Hypertension,* patients using the Rheos system showed significant average decreases in both systolic blood pressure (upper number) and diastolic blood pressure (lower number) at 12 months. This is good news for those with drug-resistant high blood pressure or those who are non-compliant about taking their drugs as prescribed.

Another non-drug approach to controlling blood pressure is RESPeRATE, a $300 electronic biofeedback device that uses deep breathing to lower blood pressure. It measures your respiration rate and coaches you through the process of slowing it way down. Licensed by Health Canada as an adjunct to drugs and lifestyle measures, this instrument analyzes your breathing pattern with a sensor, then teaches you how to reduce your breaths to fewer than 10 per minute by prolonging exhalation time.

Breathing in this therapeutic under-10 zone is thought to calm the autonomic nervous system and allow the muscles surrounding the small blood vessels to dilate and relax. Blood then flows more freely and arterial pressure drops. Studies indicate that RESPeRATE can help hypertensive people moderately lower their average blood pressure by practising slow, focused breathing 15 minutes a day several times a week for three to five weeks. (A similar, if smaller, effect was also achieved by listening to soothing music with a headset.)

Again, good news, since each 20-mmHg increase in systolic blood pressure and each 10-mmHg increase in diastolic blood pressure above normal have been associated with a twofold risk of death from stroke, coronary heart disease and other vascular causes. Hypertension is reaching pandemic proportions and is a leading cause of death worldwide. To learn more about hypertension, see "Keep Tabs on Your Blood Pressure," p. 30), and be sure to have your blood pressure checked regularly. On a cheerful note for chocolate fans, a German review of studies reports that cocoa products do, indeed, lower blood pressure.

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