

# NUTRITION ACTION

HEALTH LETTER™

## Pressure Points

7 Facts About Hypertension You Can't Afford to Ignore

BY BONNIE LIEBMAN

Strokes, heart attacks, congestive heart failure, dementia, and kidney failure. Those are just some of the consequences of high blood pressure. Yet only 13 per cent of Canadians with hypertension have lowered their blood pressure to safe levels.

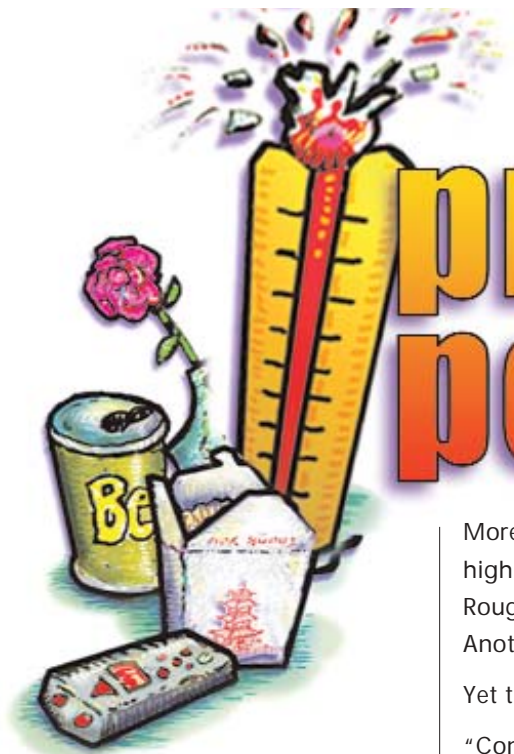
Worse yet, recent data suggests that the nation's blood pressure is rising. That should come as no surprise. The obesity epidemic is in full swing. And with Canadians eating out more often, anyone who measured the sky-high salt levels in restaurant foods could have predicted trouble.

If you think high blood pressure is someone else's problem, think again. More than half of all Canadian adults have blood pressure that raises their risk of a heart attack or stroke.

*(Continued on page 3)*



Illustration: Loei Barr.



# pressure points

**Seven Facts About Hypertension You Can't Afford to Ignore**

## 1 Your odds of high blood pressure are 90 per cent.

An estimated 22 per cent of adults—more than four million Canadians—have high blood pressure. But everybody else isn't in the clear.

Blood pressure rises with age in North America, so sooner or later, yours is almost certain to reach the level that experts call "high" (see "How High is High?").

"Even if your blood pressure is normal at the age of 55, your lifetime risk of developing hypertension is close to 90 per cent," says Boston University's Aram Chobanian, who chaired the *Seventh Report of the U.S. Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure*.<sup>2</sup>

But that doesn't mean that people should wait until their blood pressure is so high that they need drugs to lower it.

"Most people will never get hypertension if they follow our lifestyle recommendations," says Stephen Havas, an epidemiologist at the University of Maryland Medical School, referring to *Primary Prevention of Hypertension*, a report he co-authored for the U.S. National Heart, Lung, and

More than one out of five adults—and one out of two people over age 65—has high blood pressure. More than 40 per cent of them don't know they have it. Roughly 20 per cent are on medication but their pressure is still above safe levels. Another 20 per cent are doing nothing to lower their blood pressure.<sup>1</sup>

Yet the evidence for keeping blood pressure low couldn't be more compelling.

"Controlling blood pressure lowers the risk of stroke by 35 to 40 per cent and the risk of heart attack by 20 to 25 per cent," says Aram Chobanian, a hypertension expert and acting president of Boston University in Massachusetts. It also cuts the risk of congestive heart failure, kidney disease, and dementia.

Here's what you may not know about your blood pressure.

Blood Institute.<sup>3</sup> "At worst, they'll need fewer drugs."

The bottom line is clear, says Havas: "Blood pressure is an issue for the entire North American public."

## 2 "Normal" blood pressure still raises your risk.

Has your doctor called your blood pressure "normal"? That's not as good as it sounds.

"Normal" and "high-normal" blood pressures are not "hypertension" (see "How High is High?"). But they *are* high enough to increase your risk.

"Starting at blood pressures as low as 115 over 75, the risk of heart disease and stroke begins to rise," says Chobanian. And it doubles for each 20-over-10-point increase.

To highlight the risk of so-called normal and high-normal blood pressures, last year U.S. health authorities renamed them "pre-hypertension." To have a "normal" blood pressure in the U.S., your systolic pressure (the higher number) now has to be below 120 *and* your diastolic pressure (the lower number) has to be below 80. In Canada that's called "optimal."

"Sooner or later we'll use the same terms as the U.S.," says Michel Joffres, a researcher at

## How High is High?

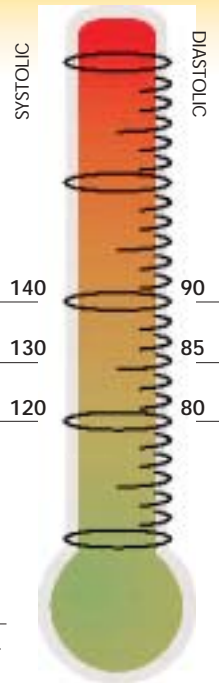
If your systolic and diastolic pressures fall into different categories, your risk depends on the higher category.

High (Hypertension)	140	90
High-Normal	130	85
Normal	120	80

Optimal

Numbers apply to adults who aren't taking drugs to lower their blood pressure.

Source: World Health Organization.



Dalhousie University in Halifax who has studied hypertension rates in Canada. “In the meantime, we’re sending a confused message to physicians.”

An estimated one out of three Canadians has what the U.S. calls pre-hypertension. The name isn’t intended to scare people. “Marking someone with a blood pressure of 122 over 82 as having a disease would be a mistake,” says Norman Kaplan, a hypertension authority at the University of Texas Southwestern Medical Center in Dallas. “We want to motivate people to improve their lifestyle.”

### 3 You may be under treatment but out of control.

Only 13 per cent of Canadians with hypertension manage to get their pressure below “high”—that is, under 140 (systolic) *and* under 90 (diastolic).

“Either physicians aren’t giving patients the message or the message gets lost,” says Joffres. “This has a major human cost, which is preventable.”

Who’s at fault? “Some of those patients may not be taking their medications, but it’s more likely that doctors aren’t giving them the right drugs,” says Kaplan.

Most people with high blood pressure need at least two medications to get below 140 over 90, say officials. (If you have diabetes or chronic kidney disease, you need to get below 130 over 80.)

“Some physicians’ attitude is that all they have to do is put the patient on a pill and forget about it,” says Kaplan. Patients shouldn’t let them, he adds.

“They have to keep working with the doctor to reach a blood pressure that’s safe.”

And that doesn’t necessarily mean medicine.

“If people aggressively follow our lifestyle recommendations, far fewer would need two drugs,” notes Havas.

### 4 If you’re over 50, systolic blood pressure matters more than diastolic.

Once you’re over 50, your systolic blood pressure (the higher number) starts to climb.

“As people get older, the blood vessels get more rigid,” explains Kaplan. It’s not just age, but clogged arteries, that makes them stiffer.

Systolic pressure measures how hard the blood presses against your artery walls when your heart beats. “In older people, the blood vessels don’t dilate, or expand, as much as in younger people,” says Kaplan. So the pressure rises.

Diastolic pressure, which measures how hard the blood presses against artery walls *between* heartbeats, may be too low in older people.

“In a younger person, when blood flows out of the large arteries and into smaller vessels, the arteries contract,” explains Kaplan. But in older people, stiffness keeps the arteries from contracting between beats, so blood pressure drops more than it should.

“A diastolic pressure lower than 70 in older people is a risk factor because it reflects atherosclerosis in the arteries,” he explains.

### 5 High blood pressure increases your risk of dementia.

The higher your blood pressure, the higher your risk of stroke, heart attack, congestive heart failure, and kidney disease. If that’s not enough to motivate you, researchers have added dementia to the list.

Thinking ability declines because high blood pressure impairs blood flow to the brain. “It’s usually because people with high blood pressure have mini-strokes or are more apt to have obstruction or narrowing of the small penetrating blood vessels that nourish remote areas of the brain,” explains Boston University’s Aram Chobanian.

The brain cells that get too little blood can die. “You may not pick up a loss of speech or paralysis, as you would with a stroke,” he adds. But the damage is real.

## What Works

If your blood pressure is high, here’s how much lifestyle changes should lower it. So far, studies have found that taking calcium, fish oil, or herbal supplements has little or no effect on blood pressure.

Advice	Specifics	Drop in Systolic Blood Pressure
Lose excess weight	For every 20 pounds you lose	5 to 20 points
Follow a DASH diet	Eat a lower-fat diet rich in vegetables, fruits, and low-fat dairy foods	8 to 14 points
Exercise daily	Get 30 minutes a day of aerobic activity (like brisk walking)	4 to 9 points
Limit sodium	Eat no more than 2,400 mg a day (ideally 1,500 mg)	2 to 8 points
Limit alcohol (if you drink)	Have no more than 2 drinks a day for men; 1 for women (1 drink = 12 oz. beer, 5 oz. wine, or 1.5 oz. 80-proof whiskey)	2 to 4 points

Source: *The Seventh Report of the U.S. Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure* ([www.nhlbi.nih.gov/guidelines/hypertension](http://www.nhlbi.nih.gov/guidelines/hypertension)).

### 6 Start with diet, not drugs.

Experts agree: everyone should follow a lifestyle that lowers blood pressure (see “What Works”). But in the doctor’s office, that advice often gets lost.

“Most physicians give little attention to lifestyle and focus on drugs,” says the University of Maryland’s Stephen Havas.

That’s a shame, he adds, because “there’s something everyone can do, regardless of what category their blood pressure falls into.”

Doctors may emphasize weight loss because it delivers a big bang for the buck. But that approach can backfire.

“Losing 40 pounds would lead to a huge drop in blood pressure,” says Havas. “But how many people can lose

40 pounds and then sustain that drop in weight?"

In fact, you don't have to lose enough to look good in a bathing suit. If you're overweight, systolic blood pressure drops about one point for every two pounds you shed. And aerobic exercise—about 30 minutes a day—can lower your blood pressure even if you never lose a pound.

"Weight loss can be a bear," says Havas. "But most people can take a walk every day, eat lower-sodium foods and more fruits and vegetables, and restrict alcohol to one or two drinks a day."

Cutting sodium would be far easier if the food industry, especially restaurants, would stop dumping on so much salt (see "Shaking the Salt," p. 6).

"Much of the rise in blood pressure that occurs with age is due to the excess sodium we're exposed to for decades," notes Havas.

And the DASH diet—with its load of fruits, vegetables, and low-fat dairy foods—may do more than curb blood pressure. (See "The DASH to Lower Blood Pressure.") "The same diet that lowers blood pressure may lower the risk of cancer and osteoporosis as well as heart attacks and strokes," says Havas.

## 7 Measure your own blood pressure.

Here's how blood pressure should be measured, according to authorities like the U.S. National Heart, Lung, and Blood Institute:

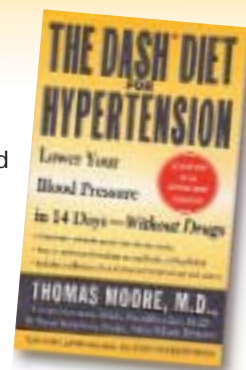
"Persons should be seated quietly for at least five minutes in a chair (rather than on an exam table), with feet on the floor and arm supported at heart level....At least two measurements should be made."

Five minutes? Two measurements? Other than the 45 minutes that you may spend sitting in the waiting room, it's unlikely that the nurse or doctor will wait another five minutes for you to relax.

"The measurement of blood pressure is one of the sloppiest procedures in clinical medicine," says the University of Texas's Norman Kaplan. "But it has one of the biggest impacts. We put people on therapy for the rest of their lives based on it."



# The DASH to Lower Blood Pressure



Researchers don't know exactly why the DASH diet lowers blood pressure. (DASH stands for Dietary Approaches to Stop Hypertension.) It's not just the abundance of fruits and vegetables (8 to 10 small servings a day). It's not just the calcium and protein in the low-fat dairy foods (2 or 3 servings a day). It's not just the *small* servings of meat, poultry, and fish (up to 2 a day). Each of those factors may make a small difference.

Here's a sample DASH diet for someone who eats 2,000 calories a day. For more information, go to [www.nhlbi.nih.gov/health/public/heart/hbp/dash/new\\_dash.pdf](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf) or check your library or bookstore for *The DASH Diet for Hypertension: Lower Your Blood Pressure in 14 Days—Without Drugs*, by Thomas Moore, Laura Svetkey, Pao-Hwa, and Njeri Karanja (Pocket Books, 2001).

Food & Servings	Examples of 1 Serving
Grains & grain products 7 to 8 a day	1 slice bread 1/2 cup dry cereal 1/2 cup cooked rice, pasta, or cereal
Vegetables 4 to 5 a day	1 cup raw leafy vegetables 1/2 cup raw non-leafy vegetables 1/2 cup cooked vegetables 3/4 cup vegetable juice
Fruits 4 to 5 a day	3/4 cup fruit juice 1 medium fruit 1/2 cup fresh, frozen, or canned fruit 1/4 cup dried fruit
Low-fat or fat-free dairy foods 2 to 3 a day	1 cup skim or 1% milk 1 cup low-fat yogurt 1 1/2 oz. non-fat cheese
Meats, poultry, & fish 2 or less a day	3 oz. broiled or roasted lean meat, skinless poultry, or seafood
Nuts, seeds, & beans 4 to 5 a week	1/2 cup cooked beans 1/3 cup nuts 2 Tbs. sunflower seeds
Added fats, oils, & salad dressings 2 to 3 a day	1 tsp. oil or soft margarine 1 tsp. regular mayonnaise 1 Tbs. low-fat mayonnaise 1 Tbs. regular salad dressing 2 Tbs. light salad dressing
Snacks & sweets 5 a week	1 medium fruit 1 cup low-fat yogurt 1/2 cup low-fat frozen yogurt 3/4 cup pretzels 1 Tbs. maple syrup, sugar, jelly, or jam 3 pieces hard candy

Source: [www.nhlbi.nih.gov/health/public/heart/hbp/dash/new\\_dash.pdf](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf).

# Shaking the Salt

Eating out tonight? Getting takeout? Is your “home-cooked” meal something you remove from a package and heat? Odds are you’re swallowing much more salt than you would if you started with fresh chicken, turkey, seafood, vegetables, etc., and added your own flavourings (garlic, vinegar, spices, lemon, olive oil). If you do rely on others to cook, here’s a sampling of how much sodium you can save if you choose the right brand.

Instead of	Sodium	Try	Sodium
Campbell's Garden Minestrone Soup (250 mL)	940 mg	President's Choice T.G.T.B.T. Pasta E Fagioli (250 mL)	500 mg
Lipton SideKicks Noodles, Butter & Herb (1 cup)	1,070 mg	Pasta, olive oil, and fresh garlic (1 cup)	0 mg
Maple Lodge Farms Chicken Breast Roast (3 slices—65 g)	670 mg	Schneiders Lifestyle Fat Free Chicken Breast (3 slices—63 g)	350 mg
Our Compliments Sundried Tomato California Dressing (2 Tbs.)	730 mg	Renée's Gourmet Naturally Light Roasted Red Pepper & Garlic Dressing (2 Tbs.)	160 mg
President's Choice Meat Lasagna (283 g)	1,170 mg	President's Choice T.G.T.B.T. Vegetable Lasagna (312 g)	790 mg
President's Choice Tournament Thick & Juicy Beef Burgers (170 g)	710 mg	Extra lean ground beef (170 g)	140 mg
Ragú Old World Style Original Pasta Sauce (1 cup)	1,320 mg	Classico Roasted Garlic & Onion Pasta Sauce (1 cup)	440 mg
Rice A Roni Spanish Rice (56 g dry)	990 mg	Casbah Spanish Pilaf (45 g dry)	480 mg
Stouffer's Pastaria 3 Cheese Macaroni (255 g)	1,200 mg	Michelina's Lifestyle Macaroni & Cheese (227 g)	540 mg



That’s one reason why you should measure your blood pressure at home, says Kaplan. “Taking your own blood pressure is the only way to monitor it effectively. Every family ought to have a blood pressure device.”

Part of the problem is “office hypertension,” also called “white coat hypertension.” Blood pressure rises in doctors’ offices because the patient is nervous.

“The data say that 20 to 30 per cent of patients have office hypertension and it goes up with age,” says Kaplan. “I think it’s because older people anticipate something terrible being found when they go to the doctor.”

Once your blood pressure is under control, you only need to measure it once a week, says Kaplan. “You can buy a blood pressure device at WalMart or the local drug store,” he notes. “It’s about \$50 if you pump up the cuff by hand. For \$100 to \$140, you press a button and the cuff inflates by itself.”

*Consumer Reports* magazine periodically rates the devices, he adds. “The only unreliable ones are those that take your blood pressure with a cuff on the finger. They’re expensive and not worth it.”

People who are too overweight to put a cuff on their upper arm have other options. “You can usually order a larger cuff from the company,”

Kaplan explains. Alternatively, “measuring your blood pressure with a device that uses a cuff at the wrist is quite reliable.”

Older people should take their blood pressure both sitting and standing. “About 20 to 30 per cent of healthy older folks have postural hypotension,” says Kaplan. When they stand up, their blood pressure drops, they get lightheaded, and they may fall.

“Take a couple of measurements seated and then as soon as you stand up, take it again,” he advises. If your pressure drops by at least 20 points, you have postural hypotension. Make sure to tell the doctor at your next visit. 🍅

<sup>1</sup> *Am. J. Hypertension* 14: 1099, 2001.

<sup>2</sup> *Hypertension* 42: 1206, 2003 or [www.nhlbi.nih.gov/guidelines/hypertension](http://www.nhlbi.nih.gov/guidelines/hypertension).

<sup>3</sup> [www.nhlbi.nih.gov/health/prof/heart/hbp/pphbp.htm](http://www.nhlbi.nih.gov/health/prof/heart/hbp/pphbp.htm).