

# Longer Life, by the Numbers

The elixir of long life is pretty simple stuff. Exercise, eat well, avoid stress, stop smoking and take preventive medications. But how exactly do these and other things we can do affect our body's vital organs? If you are embarking on a health change journey or are already on the road, here are some tips and scientific findings to support the modifications in your behavior.

Medical science is incremental in nature, so a single study is rarely the final word; the associations that come from observational studies are sometimes overturned by later trials. Read the numbers prudently and consult with your doctor before making changes.

	PROBLEM	DIET	EXERCISE	STRESS REDUCTION	MEDICATION
HEART HEALTH	<p><b>High Blood Pressure</b></p> <p><b>Blood pressure</b> is measured by two numbers: the systolic reading (the top number), which shows the pressure when the heart is contracting, and the diastolic (the bottom number), which indicates the pressure when the heart is relaxing. Both are measured in millimeters of mercury (mmHg), or points. Normal blood pressure is below 120/80, while high blood pressure is 140/90 or higher. Reducing blood pressure lowers the risk of heart disease and increases longevity: For every increase of 20 points in systolic blood pressure and 10 points of diastolic blood pressure, the likelihood of death from cardiovascular disease doubles. So, a drop from 150/90 to 130/80 (not a huge change) makes you <b>far less likely to die from heart disease</b>. People at age 50 with normal blood pressure <b>live five years</b> longer on average than those with higher blood pressure.</p>	<p>The average American eats only 4.4 servings of fruit and vegetables per day. <b>One study showed</b> that people who reduced the fat in their diet to 26 percent and increased fruit, juices and vegetables to 9.6 servings per day cut their systolic blood pressure by 5.5 points and diastolic blood pressure by three points.</p>	<p>If you are overweight, <b>lose 22 pounds</b> and your systolic blood pressure will decline by five to 20 points. <b>Regular exercise</b>, such as brisk walking for 30 minutes most days, can drop your systolic blood pressure by four to nine points.</p>	<p><b>A 2008 review of nine studies</b> found that Transcendental Meditation reduced systolic blood pressure by 4.7 points and diastolic blood pressure by 3.2 points.</p>	<p><b>In a 1992 study, 4,396 patients</b> who received a beta blocker and a diuretic for high blood pressure had on average a 19 percent reduction in coronary events such as heart attacks and a 25 percent reduction in strokes.</p>
	<p><b>Cholesterol</b></p> <p>A waxy substance that your body needs to function normally, cholesterol can build up in your arteries and increase the risk of coronary heart disease and stroke. Cholesterol is measured as milligrams (mg) of cholesterol per deciliter (dl) of blood. It contains "bad" cholesterol (low-density lipoproteins, or LDL), which increases your risk of coronary heart disease, and good cholesterol (high-density lipoproteins, or HDL), which lowers your risk of coronary heart disease.</p> <p>Ideally, you want your LDL count to be less than 100 mg/dl and HDL more than 40 mg/dl.</p> <p><b>People who have cholesterol levels in the normal range live longer</b> than those with elevated cholesterol. Physicians refer to the <b>rule of 1 percent</b>: For every 1 percent increase in the HDL and/or 1 percent decline in LDL, there is 1 percent lower risk of developing coronary artery disease.</p>	<p><b>A 1997 study of 444 men</b> found that those who replaced an average American diet with a reduced-fat diet (26 percent fat) experienced a <b>13.4% drop in LDL</b>.</p>	<p><b>HDL 44.3 to 48.6</b></p> <p><b>In a 2002 study of 111</b> sedentary, overweight men and women, those who exercised intensively (the equivalent of jogging 20 miles a week) saw their HDL rise this much.</p>	<p><b>A 2008 review of nine studies</b> found that Transcendental Meditation reduced systolic blood pressure by 4.7 points and diastolic blood pressure by 3.2 points.</p>	<p><b>A Scandinavian study</b> of 4,444 patients with heart disease found that those given a cholesterol-lowering statin drug had a death rate of 8 percent over five years, compared with 12 percent for those on a placebo. Also, the rate of major coronary events (such as heart attack) was 19 percent for the statin group, but 28 percent for the placebo group. One study of 22,071 physicians without a history of heart disease placed some on a low dose of aspirin (325 mg every other day). Over five years, the group taking aspirin had a 44 percent lower incidence of heart attack. People older than 50 saw the most benefit.</p>
BRAIN HEALTH	<p><b>Alzheimer's Disease</b></p> <p>Most people fear the loss of their mental faculties even more than their physical health.</p> <p><b>Currently, one in every eight people age 65 and older has Alzheimer's.</b></p> <p>The rate rises to one in two for people older than 85, according to the <b>Alzheimer's Association</b>. Although no study has found a silver bullet that will prevent dementia, more and more researchers think there are things you can do to protect your brain as you age.</p>	<p><b>An observational study</b> of 1,740 adults older than 65 showed that 13 people per thousand developed Alzheimer's dementia among those who exercised three times or more per week. For those who got the least exercise, the rate was 20 per thousand. By extrapolation, this means that if all the 636,000 people older than 65 in the Washington area exercised regularly, there would be nearly 3,000 fewer cases of Alzheimer's per year. In another <b>observational study</b>, people ages 75 to 85 who engaged in cognitive exercises such as board games, reading, playing a musical instrument and doing crosswords were significantly less likely to develop dementia over a five-year period than those who did not.</p>	<p><b>To find links to abstracts and papers describing these studies and statistics, please download a PDF of this article at <a href="http://www.washingtonpost.com">www.washingtonpost.com</a> and click on the words in bold or go to <a href="http://www.mjain.net">www.mjain.net</a>.</b></p>	<p><b>Individuals with high cholesterol who took statins had a 71 percent lower rate of dementia</b> compared with those not on statins. <b>A study of nearly 7,000 adults</b> older than 55 who were followed for seven years had an 80 percent lower risk of Alzheimer's dementia if they had received nonsteroidal anti-inflammatories such as ibuprofen for more than two years.</p>	
	<p>Smoking causes direct injury to the lung . . .</p> <p><b>. . . yet nearly one in five American adults smokes cigarettes.</b></p> <p>According to the <b>1990 Surgeon General's Report</b>, people who quit smoking between ages 35 and 39 added three to five years to their lives, while those who quit smoking between ages 65 and 69 added one year to their lives.</p>	<p>Smoking cessation reduces risk of heart disease, peripheral vascular disease and dementia, but most significantly it reduces the risk of lung cancer.</p> <p><b>Nonsmokers married to lifelong smokers</b> had double the rate of lung cancer compared with other nonsmokers.</p> <p><b>Among 100 lifelong smokers . . .</b></p> <p><b>14</b> will die of lung cancer compared with less than one per 100 nonsmokers.</p>	<p><b>GENERAL HEALTH</b></p> <p>Ideal weight + 20 to 30 pounds = <b>OVERWEIGHT</b></p> <p>Ideal weight + 30 pounds or more = <b>OBESE*</b></p> <p>*A loss of 10 pounds can lead to significant health benefits.</p> <p><b>Increased risk of death</b> during midlife of overweight people compared with normal-weight people.</p> <p><b>OVERWEIGHT 20%-40%</b></p> <p><b>OBESE 200%-300%</b></p> <p>According to the 2005 <b>Dietary Guidelines</b>, those who are overweight should try to eat 500 to 1,000 calories a day fewer than they burn, which will help them lose one to two pounds a week.</p>	<p>Reporting by <b>Manoj Jain</b> Special to The Washington Post</p> <p>Manoj Jain is an infectious-disease physician and a clinical assistant professor at University of Tennessee at Memphis.</p> <p>Comments: <a href="mailto:health@washpost.com">health@washpost.com</a>.</p>	

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