



# HEART HEALTH: RISK FACTORS AND LIFESTYLE CHOICES



Heart disease is currently the number one killer of men and women in the United States.<sup>1</sup> One in every four deaths is due to plaque build-up in the arteries, which restricts blood flow causing a heart attack or stroke.<sup>1</sup> At least one third of the nearly 600,000 lives lost to heart disease each year could have been prevented.<sup>2</sup> As Sailors and Marines, your health is mission critical. Take the time to learn about the risk factors and lifestyle choices that could lead to heart disease. Your ability to serve and your life may depend on it.

## Risk Factors

The risk factors for heart disease are well known. Some of them, such as gender, age, and family history are outside of your control. Medical conditions, such as high blood pressure, elevated low-density lipoprotein (LDL) cholesterol known as the “bad” cholesterol, and type 2 diabetes are controllable, and entirely preventable in some cases with lifestyle changes. Before we look at the lifestyle choices that impact heart health, let’s get an understanding of the risk factors that are controllable.

### High Blood Pressure

Blood pressure is the measure of force with which blood moves through the arteries.<sup>3</sup> High blood pressure, or hypertension, can cause stress on the artery walls, which may damage the heart.<sup>3</sup> Approximately 31 percent of adults have hypertension (140/90 mmHg or higher) and another one in three has prehypertension (between 120/80 mmHg and 139/89 mmHg), which is above normal but below high blood pressure range.<sup>3</sup>

### Elevated Low-Density Lipoprotein (LDL) Cholesterol

Cholesterol is a waxy-substance found in the bloodstream that is vital to many bodily functions, such as hormone production.<sup>4</sup> Due to its thick consistency, cholesterol must be transported through the blood by carriers known as low-density lipoproteins (LDL) and high-density lipoproteins (HDL).<sup>4</sup> LDL is considered “bad” cholesterol because it can build-up in the arteries causing them to narrow.<sup>4</sup> Blocked arteries may lead to heart disease or stroke.<sup>4</sup>

HDL is considered “good” cholesterol because it removes LDL from the blood. More than one third of Americans have LDL levels that are too high (100 mg/dL or higher).<sup>4</sup> Those with high LDL are twice as likely to develop heart disease compared to those with normal cholesterol levels.<sup>4</sup>

### Type 2 Diabetes

Type 2 diabetes is a condition in which insulin is unable to work effectively. When you eat, your food is eventually converted to glucose (a form of sugar) in the blood stream. Insulin helps in the transfer of glucose from the blood stream into body cells for energy.<sup>5</sup> When the body is resistant to insulin excess glucose collects in the bloodstream, which weakens arteries and may cause heart disease.<sup>5</sup> Nearly 30 million Americans are diabetic<sup>6</sup> with about 95 percent of those having type 2 diabetes.<sup>7</sup> Adults with diabetes are twice as likely to have heart disease than those without.<sup>8</sup>

## Lifestyle Choices

Unhealthy lifestyle choices such as poor eating habits, a lack of exercise, being overweight or obese, and mismanaging stress can contribute to these medical conditions.<sup>3,4</sup> By making healthy choices, you can burn body fat, increase circulation, strengthen your heart, reduce cholesterol, and lower your blood glucose, which can help diminish or prevent heart disease in a majority of cases. Despite this evidence, numerous service members still make unhealthy choices<sup>9</sup> and increase their risk of heart disease. Make sure you’re not one of them by making the following healthy lifestyle choices every day.

### Healthy Eating

Food is fuel for the body. In order to perform at your peak, you have to eat healthy and live a balanced lifestyle. Processed and prepared foods, such as pre-packaged and convenience foods, often contain high amounts of calories, sodium (salt), added sugars, and fat. These ingredients directly contribute to the medical conditions that lead to heart disease.

Unfortunately, too many service members are not fueling their bodies well. The most recent results from the Fleet and Marine Corps Health Risk Assessment showed that only 34 percent of active duty Navy respondents and 28 percent of active duty Marine respondents indicated that they ate three or more servings of vegetables a day.<sup>9</sup> In addition, 40 percent of active duty Sailors and 46 percent of active duty Marines who participated in the assessment stated that they had a diet low in fruit.<sup>9</sup> Lastly, 40 percent of active duty Sailors and Marines also self-reported eating a high fat diet.<sup>9</sup> To decrease your risk of heart disease, eat a balanced diet of nutrient-dense foods and follow these tips:

- ▶ Make half your plate fruits and vegetables
- ▶ Make at least half your grains whole grains
- ▶ Switch to fat-free or low-fat (1%) milk
- ▶ Choose foods with less sodium
- ▶ Avoid oversized portions
- ▶ Drink water instead of soda or sugary drinks
- ▶ Check out [HPW Healthy Eating](#) for more nutrition tips

### Active Living

In addition to healthy eating, exercise can also reduce the risk of heart disease. By engaging in a combination of moderate to intense aerobic exercise, muscle strengthening, and functional body movement activities, you can increase blood flow and strengthen your heart.

Statistics show that 73 percent of active duty Navy respondents and 84 percent of active duty Marine respondents engaged in at least 150 minutes of moderate intensity aerobic activity 3–4 weeks per month over the last year.<sup>9</sup> Likewise, 79 percent of active duty Sailors and 90 percent of active duty Marines who participated in the assessment stated that they engaged in strength training three or more days a week over the last year.<sup>9</sup> While these numbers are encouraging; it's never too late to start a workout routine, if you don't exercise regularly. To improve your heart health, follow these training tips:

- ▶ Aim for 150–250 minutes of moderate intensity exercise every week to reduce chronic disease factors and prevent weight gain
- ▶ Include a variety of activities to get the most health benefits out of your training
- ▶ Check out [HPW Active Living](#) for more tips on how to take the guesswork out of a new routine, or for suggestions on how to revitalize your current fitness regimen

### Body Mass Index (BMI)

Weight management is critical to heart health. Even a modest weight loss of 5–10 percent of your total body weight can produce health benefits, such as improvements to blood pressure, cholesterol, and glucose levels.<sup>10</sup>

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Despite this information, many service members battle with excessive weight, as measured by the body mass index (BMI). According to self-reported data, 64 percent of active duty Navy respondents and 56 percent of active duty Marine respondents indicated being overweight (BMI 25-29 kg/m<sup>2</sup>) or obese (BMI ≥ 30 kg/m<sup>2</sup>).<sup>9</sup> To help lower your BMI, follow these tips:

- ▶ Eat a balanced diet
- ▶ Aim for 250–300 minutes of moderate intensity exercise every week to lose weight and keep it off after weight loss
- ▶ Reduce your caloric intake by 500–1000 calories a day to lose 1–2 pounds per week
- ▶ Contact your local dietitian or health care provider to help you develop a plan
- ▶ Check out [HPW Weight Management](#) for more health tips

### Stress Management

Stress is a natural reaction. It is the body's way of coping with a perceived threat. We all experience stress from time to time. However, prolonged periods of stress can be unhealthy.

As part of the 'fight or flight' response, stress signals the body to produce more energy by elevating the heart rate and increasing production of LDL cholesterol and blood glucose.<sup>11</sup> Stress can also lead to poor eating choices, missed workouts, and a lack of sleep. If stress is not properly managed, a combination of these factors may lead to high blood pressure, high cholesterol, or diabetes.

Only 12 percent of active duty Navy respondents and 13 percent of active duty Marine respondents indicated that they experienced work stress.<sup>9</sup> Notably, those numbers increased as time away from home station increased.<sup>9</sup> To help manage stress follow these tips:

- ▶ Eat healthy, stay hydrated, and limit caffeine and alcohol
- ▶ Exercise regularly to reduce stress, burn calories, and improve sleep
- ▶ Get 7–8 hours of sleep
- ▶ Use [relaxation](#) techniques, such as deep breathing exercises or meditation
- ▶ Check out [strengthening resilience](#) and [managing stress](#) for more tips

Not all risk factors can be avoided, but making healthy lifestyle choices can reduce your risk. Make sure you do your part to protect your heart, improve your health, and enhance your military readiness. You can also check-out the [HPW Toolbox on Heart Health](#) for more information.

To view the resources for this fact sheet, visit [Heart Hearth: Risk Factors and Lifestyle Choices References](#).