

February: American Heart Month ^[1]

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This February, listen to your heart, but not metaphorically.

“The heart wants what it wants, an unending supply of human blood” – unknown author

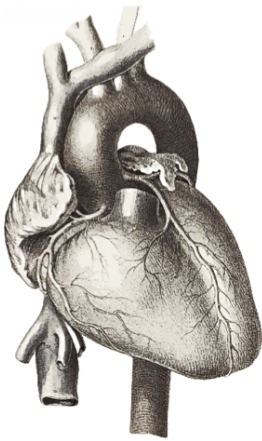
For me, February has always meant red, hearts, and chocolate, lots and lots of chocolate... but today I want to focus on the hearts.

We can all make the February-Hearts–Love connection, but there is another, less symbolic dimension we should pay attention to during February, American Heart Month: our own heart's health. Ironically or poetically, the stress Valentine's Day ensues on some, plus all of that free candy, might not be in our heart's best interest. Broken hearts are not just metaphors, a ruptured heart wall can actually be a consequence of heart disease. It is important that we take care of this precious pump.

Why is this relevant?

According to the 2015 Health Report in Puerto Rico, **the two most commonly billed diseases as primary diagnosis in 2013 were diabetes and hypertension**, both of which are closely related to heart disease. **The third was heart disease.**

There were a total of 5,087 deaths attributed to cardiovascular disease (diseases of the heart and blood vessel system) in Puerto Rico, making it **second only to cancer as most common cause**



The glorious-yet-not-so-perfect pump

Beating more than 40 million times a year and pumping over 7500 liters of blood a day; the heart is vital to our health and everything that goes on in our bodies. It's controlled by electrical impulses that contract its walls, pumping blood into the circulatory system, of which it is the center. Blood transports oxygen and nutrients, so if a certain area of our bodies is starved from blood, it will eventually die. As all other organs, the heart too needs oxygen and nutrients to function. It therefore has its own blood vessels, the coronary arteries, to supply these needs.

Limit of blood flow to the heart

"Hardening of the arteries" or atherosclerosis, is a condition in which a waxy substance called plaque, builds up over the arterial walls over the course of years. If a portion of plaque breaks

open inside an artery, a blood clot will form, and depending on the size of the clot, it will limit blood flow. When atherosclerosis affects the coronary arteries, it can limit blood flow to the heart, this being the most common cause of a heart attack. A visual description of this process can be found [here](#) [3].

Another but less common cause of limited blood flow to the heart is referred to as a coronary artery spasm, in which there is a sudden, severe tightening of an artery. This can be related to taking certain drugs (such as cocaine), emotional stress or pain, extreme cold, and cigarette smoking.

Ischemic Heart Disease (IHD)

The condition of imbalance between the heart's supply and demand for oxygen, is termed Ischemic Heart Disease. **IHD It is the leading cause of death in industrialized nations and is most frequently caused by atherosclerosis of the coronary arteries.**

The most common manifestation of IHD is *angina pectoris*, which literally means “strangling in the chest” and is an uncomfortable sensation in the chest and neighboring anatomic structures produced by inadequate blood supply. It is felt upon exertion, and will be relieved upon cessation of the activity causing it (such as walking, climbing stairs, vigorous exercise). It indicates IHD, so one should not wait for a more serious complication before going to the doctor.

The most feared manifestation of IHD is probably a “heart attack” or myocardial infarction, in which this lack of blood leads to cardiac muscle death. This usually results from an acute occlusion of the coronary arteries. Heart muscle death could have a series of diverse complications, such as inflammation, heart failure –because the heart can no longer do the work it used to-, a dilated heart, arrhythmias, and even rupture of the heart wall.

What does a heart attack feel like

Not all heart attacks happen like they do in the movies. **You may or may not experience the classic “sudden crushing chest pain that moves toward the left arm”**, and just because you've had a heart attack before, that doesn't mean the symptoms will repeat themselves exactly. **Heart attacks can start slowly, and discomfort or pain could even be mild.**

Most common symptoms of a heart attack are:

- **Chest pain or discomfort**, which can range from mild to severe, and might even be confused with **heartburn or indigestion**.

- **Upper body discomfort**
- **Shortness of breath** might be the only symptom, occurring with or before a heart attack. This possibly presents by feeling out of breath when climbing stairs or hyperventilating after walking only a short distance, but can present at rest.

All chest pain should be checked by a doctor.

Other signs or symptoms might be:

- **Cold sweat**
- **Unusual tiredness** for no reason, sometimes for days (especially if you are a woman)
- **Nausea and vomiting**
- **Light-headedness or sudden dizziness**
- Any sudden, **new symptoms or change** in the pattern of symptoms you already have (for example, if they become stronger or last longer than usual)

9-1-1 Act fast to save your heart- and your life

The longer heart muscle is starved from blood, the more cells undergo irreversible damage. If too much damage is already done, medical treatment might not be useful or risks might outweigh the benefits. If given early however, heart muscle can be saved. Acting fast is therefore key to a better prognosis.

If you think you might be having symptoms of **a heart attack**, don't ignore it. **Call 9–1–1** without delay, **even if you are not sure** you're having a heart attack. Why?

- An ambulance is the best and safest way to get to the hospital. Emergency medical services (EMS) personnel can start life-saving medicines and other treatments right away. Arriving by ambulance can lead to receiving faster treatment at the hospital.
- The 9–1–1 operator or EMS technician can give you advice. You might be told to crush or chew an aspirin if you're not allergic, unless there is a medical reason for you not to take one. Aspirin taken during a heart attack can limit the damage to your heart and save your life.

Every minute matters. **Never delay calling 9–1–1** to take aspirin or do anything else you think might help.

You can download a helpful information packet [here](#) [4].

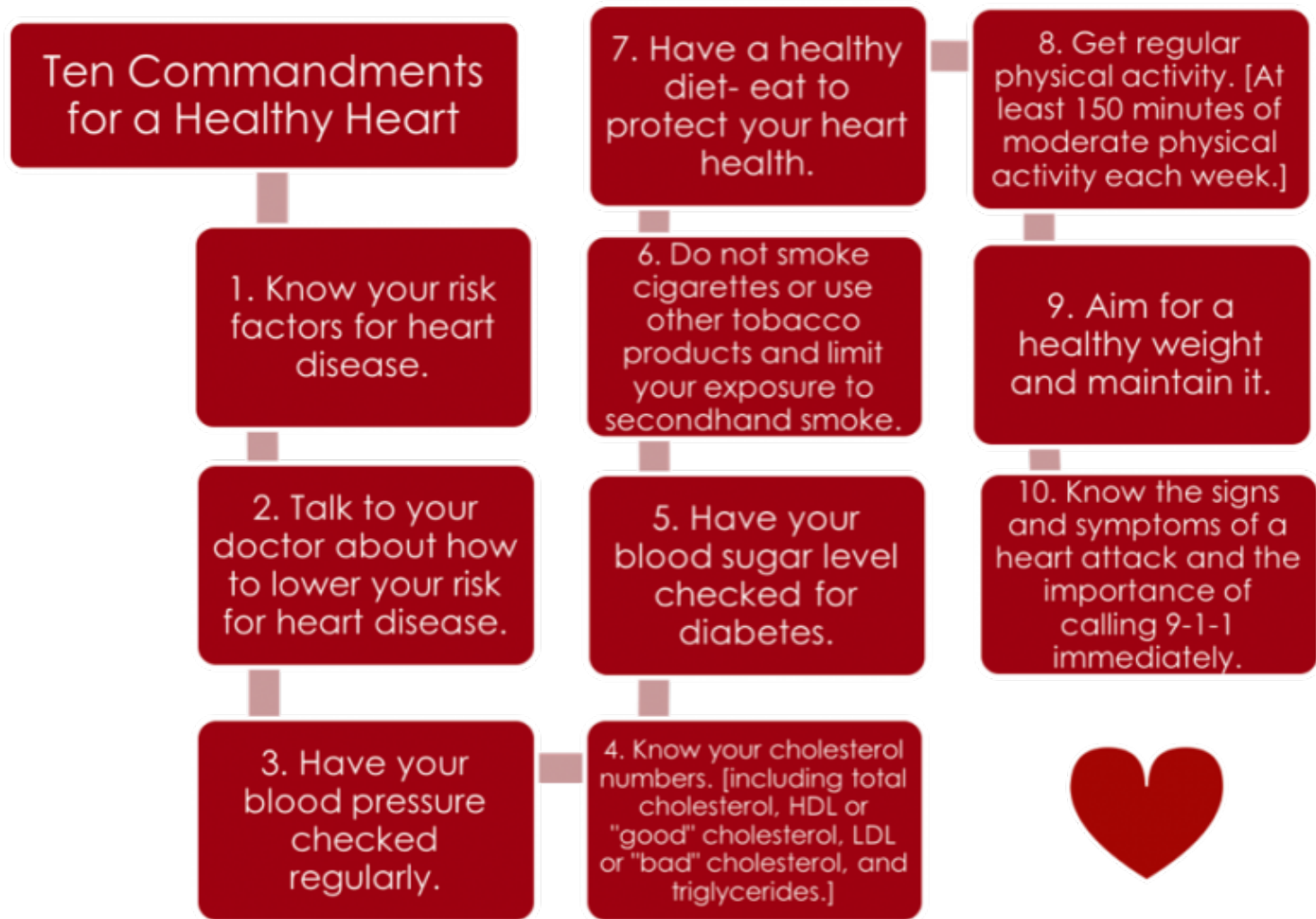
First step towards prevention

There are a certain amount of controllable risk factors that contribute to IHD. Some of these are obesity, hypertension, diabetes, and high cholesterol. By changing to a healthier lifestyle: balanced diet, exercise, controlling blood pressure and sugar, and quitting smoking, you can significantly reduce your risk of a heart attack. **Every small change counts.**

Other risk factors you can't control involve:

- **Age.** Men older than 45 and women older than 55 (or after after menopause) are at a higher risk.
- **Family history** of early heart disease.
- **Preeclampsia:** a condition that develops during pregnancy with its two main signs being a rise in blood pressure and excess protein in the urine

Talk to your doctor soon and follow the **Ten commandments for a healthy heart** from the National Heart, Lung, and Blood institute:



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