

## STEPS TO WELLNESS – LESSON 6

# America's Top Two Killers

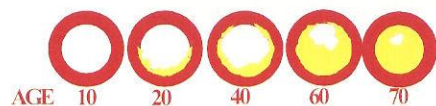
Heart disease and cancer have become the industrialized nations' largest health problem. In fact they have become the top two killers in the United States. There are many steps that can be taken to prevent these lifestyle diseases from plaguing us, so in this lesson we will investigate some simple preventative measures that will reduce the risk.



## HEART DISEASE

Nearly 50 percent of Americans die from heart disease or stroke; 25 percent will die worldwide. Unfortunately, most people don't realize they are developing heart disease until it is too late. The reason for this is because it develops silently – in fact, by the time symptoms are manifested, it may be that the first heart attack or stroke is the fatal one.

A heart attack or stroke is the result of not getting a sufficient supply of blood to the heart or brain to keep it nourished. Since both organs are always working they need fresh nutrients and oxygen constantly. When the arteries that feed the heart or brain become clogged and the blood cannot reach the organ then part of the organ dies.



The clogging of blood vessels happens slowly. Usually there is damage to the artery lining, then quite often cholesterol will fill in the hole. After

years of a high-cholesterol diet the damaged area may be so filled in with cholesterol that the blood can hardly pass through. Today, damaged blood vessels are commonly found in the artery lining of children 10-15 years old. By the age of 20, fatty streaks can be built up enough that they may be seen in a cross section of the coronary artery. By 30 years old, if the unhealthy lifestyle continues, they progress to fibrous plaques. Up to this point, these thirty years of coronary artery disease will generally be silent. Only after the disease reaches 40-50% blockage will an angiogram show the occlusion in a picture. When a blockage progresses to 90% or greater, symptoms will generally manifest themselves. Chest pain usually occurs (known as angina pectoris), which is a lack of blood flow through the coronary artery which brings the blood to the heart. Fortunately, for those willing to make common-sense lifestyle changes, heart disease can often be prevented or even reversed.

## WHY SUCH A HIGH HEART-DISEASE RATE IN AMERICA?

What factors are associated with risk of heart disease? There are many risk factors. Some of these factors one cannot change, such as aging, family history, and being male. However there are lifestyle factors that can be modified. These include smoking, dietary habits that elevate blood fat, obesity, and stress, all of which are a problem in the United States. The American Heart Association panel find most heart-disease victims fail to deal with their high cholesterol, high blood pressure, lack of exercise, and smoking habit.<sup>1</sup>

The three most important risk factors for heart disease are high blood-cholesterol levels, high blood pressure, and smoking. The National Cholesterol Education Program suggested that a desirable blood cholesterol level is one that is below 200mg/dl. About 25% of the adult population in the U.S. have cholesterol levels above 240. This places an individual at three times the risk of a heart attack as someone who has a cholesterol level under 200. If one can lower the cholesterol level by 10 % it will reduce the risk of coronary heart disease by 20%.<sup>2</sup>

## THE CHOLESTEROL STORY

Cholesterol is a white, waxy, fat-like substance found naturally in the body. It is used to build cell walls and make certain hormones. Too much serum cholesterol can clog your arteries and eventually choke off the blood supply to the heart.

There are two sources of cholesterol. First is serum cholesterol, which our liver manufactures. All that we need every day is made by our body. We need no other supply. The second source of cholesterol is from our foods, thus it is called *dietary* cholesterol. Not all food has cholesterol in it; in fact cholesterol is found without exception only in animal foods. Fruits, vegetables, grains, and nuts contain no cholesterol. The average American eats 400-500 mg of dietary cholesterol every day from mainly animal sources.



## SOURCES OF CHOLESTEROL FOR AMERICANS

- 35% Meat
- 35% Eggs
- 16% Milk and milk products
- 8% Commercially baked goods
- 6% Cooking fats (butter, lard, etc.)

Not only will a high intake of dietary cholesterol increase cholesterol, which leads to coronary artery disease, but a high intake of saturated fat will also increase cholesterol levels along with obesity, smoking, and boiled coffee.<sup>3</sup>

## THE PROBLEM WITH OXIDIZED CHOLESTEROL

Not all cholesterol is bad, but most Americans are consuming 'oxidized' cholesterol which is harmful. Oxidized cholesterol is much more dangerous to the blood vessels than pure cholesterol without any oxidized products. When we consume cholesterol-laden food exposed to the air for a long period, or mixed and aerated in food manufacturing, it easily becomes oxidized. Studies showed that the oxidized foods which caused the most damage were custards (ice cream is a type of custard), parmesan cheese, and pancakes (with powdered egg in the mix).<sup>4</sup>

## PROTECTIVE FOODS<sup>5</sup>

Some foods have been found to actually prevent or reverse heart disease cases. They are found in:

**Polyunsaturated fat** – such as found in beans, nuts, whole grains, and seeds

**Monounsaturated fat** – found in almonds, olive oil, and canola oil

**Soluble fiber** – found in fruits (especially citrus and apples), beans, vegetables (especially carrots and squash), and grains such as oats and barley

Some factors have been identified in fruits and vegetables that are protective against heart disease. Beta-carotene is helpful and may be found in fruits and vegetables such as sweet potato, cantaloupe, carrots and pumpkin. Vitamin E is also protective which is found in seeds, nuts, and vegetable oils.

## WHAT WE CAN DO

**Here are 4 simple steps to lower your risk of heart disease.**

1. Stop smoking.
2. Incorporate an exercise program.
3. Decrease the intake of animal products (cholesterol and saturated fat).
4. Eat more vegetables, fruits, grains, beans, and nuts.

## CANCER

The very word "cancer" strikes fear into the hearts of people. No longer is cancer considered a disease of the old; it can strike any one of us at any age. In the United States there was 476,700 deaths from cancer in 1987, and there has been an increase every single year. Cancer has been the second leading cause of death in the United States, second only to heart disease. Even though \$20 billion has been spent on cancer research during the past 20 years, a cure has thus far eluded scientists. However, there is one thing about which we can be sure. Lifestyle has a

major influence upon one's risk of cancer. About 50-60% of all cancers are believed to be diet-related, while about 35% of all deaths due to cancer are believed to be associated with an improper diet.<sup>6</sup>

Cancer is an unnatural and harmful growth in the body. It causes a change in the normal growth of cells. Cancer may affect different parts of the body: skin cancer, lung cancer, breast cancer, stomach cancer, the list goes on. Although scientists have not yet found a cure for cancer, knowing its causes has helped prevent it.

## CAUSES OF CANCER IN U.S.

*Why is the rate of cancer so high among Americans and other industrialized countries?*

According to the director of the National Cancer Institute's Division of Cancer Prevention and Control, "A great number of studies have shown that a diet rich in fruits and vegetables has a protective effect against cancer. A lack of a single serving each day may add up to a great deficit over time." Our past Surgeon General concluded his research by stating, "In the course of this research, it has become clear that many cancers have external causes and, in principle, should therefore be preventable." If you summarized his recommendations from all his research findings you could group them under two points. One, stop smoking, and two, make common-sense dietary changes.<sup>7</sup> These conclusions fit with the American Cancer Society's recommendations for preventing cancer. Eight of their ten points to reduce cancer risk are related to nutrition. One of these is to reduce fat in the diet. Although some plant food has fat, the majority of fat that Americans take in is from animal products, especially meat, milk, eggs, and cheese. These products have high levels of the bad kind of fat, which is saturated fat.

## THE ROLE OF FATS IN CANCER RISK

If you look at the fat intake of 16 other countries you see there is a direct relationship of the amount of fat eaten to the amount of breast-cancer deaths.<sup>8</sup> Japan is a country known for its low incidence of cancers overall. When Japanese people migrate to western cultures like the United States, their cancer death rate increases to about the same as the country they migrate to.<sup>9</sup> Seventh-day Adventists are found to be the longest-living group in America. Overall they have about half the cancer rates of the average American. Since their religion leaves members free to be vegetarian or not (except of unclean animals), about 50% do eat meat. When you compare the meat-eating Adventists to non-meat-eating ones, the meat eaters are significantly higher in their cancer rates. This is consistent for cancers of the colon, rectum, ovaries, and breast. So the higher the intake of fat primarily from animal foods, the higher the amount of cancer.

There are other significant causes of cancer including the manner in which the meat is cooked, which influences the risk of cancer. Another risk that is significant is related to proper weight versus being overweight. The more excess weight one carries, the higher the risk of cancer of various types.

## THE POSITIVE ROLE OF PLANT FOODS

Many think that it is impossible to avoid getting cancer, but we are now learning more about the advantage of plant foods. Many studies today show a protective effect from eating vegetables and fruits. Those Americans with the highest intake of vegetables and fruits, have the lowest rate of cancer. These foods are rich in vitamin C, E and A.

### HIGH LEVEL VITAMIN (A, C & E) FOODS

Vitamin A	Vitamin C	Vitamin E
Carrots	Red bell peppers	Sunflower oil
Pumpkin	Brussel sprouts	Sunflower seeds
Sweet potato	Pink/red grapefruit	Canola oil
Sweet bell peppers	Strawberries	Almonds
Spinach	Broccoli	Spinach
Broccoli	Sweet potato	

Clearly, the American diet high in fat, in meats, and refined foods, is at fault when it comes to cancer. Diet is not the only cause for cancer but it is becoming more widely understood that it is one of the biggest factors along with smoking. Thankfully, we have the option according to the Surgeon General to make common-sense dietary changes and prevent many cancers before they ever get a chance to start. A diet rich in fruits and vegetables, loaded with natural chemicals that fight cancer-causing substances, is the most practical way to prevent this dreaded disease.

## ANCIENT PROMISE FOR ALL TIMES

Because of modern technology and Egyptian mummification, scientists have been able to determine the causes of death of Egyptians back in Bible times. They found that the Egyptians were dying from: cancers of various types, cardiovascular disease, degenerative joint disease, and many others that are not foreign to Americans today.<sup>10</sup> But when God brought the Israelite nation out of Egypt, He made a promise to them; "And He said, If you diligently heed the voice of the Lord your God and do what is right in His sight, give ear to His commandments and keep all His statutes, I will put none of the diseases on you which I have brought on the Egyptians. For I am the Lord who heals you." (Exodus 15:26 NKJV) The Egyptians were dying of the same diseases that Americans are. Not only does God want to prevent us today from getting those diseases but He also wants to "heal" us from them. If we eat more grains, beans, nuts, vegetables, and fruits, then we can receive the healing properties that God put into the plants that prevent heart disease and cancer, and if we already have one of those diseases God would like to heal us with a good diet.

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## REVIEW QUESTIONS

### T F (True or False)

1. Heart Disease develops silently over the years, with very few warning signs.
2. Cholesterol is found only in animal food.
3. The amount of saturated fat in the diet has no direct relationship to cancer levels.

### Multiple Choice Questions

Indicate your answer by checking the letter you think is most correct

4. Americans get the majority of their cholesterol from:
- A. high fat plant food like coconut and nuts.
- B. commercially baked goods and cooking fats.
- C. meat and eggs.
- D. none of the above.
5. Foods that best prevent heart disease and cancer are:
- A. high fiber foods like beans and apples.
- B. vitamin rich vegetables, like greens, carrots, and broccoli.
- C. whole grains, nuts, and seeds.
- D. all of the above.