

## Living Longer, Better, Balanced Lives

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Seventh-day Adventists have been the subject of careful scientific studies for more than 55 years now. ◆ These investigations began in the late 1950's with what is now known as the Adventist Mortality Study which enrolled 23,000 members living in California. Sponsored by the American Cancer Society, this group's death rates were compared with those of the general population.

AHS-1 began in 1974 and included 34,000 Californian participants. It is from this study that we learned Adventists live 8-10 years longer than their peers in the general population. This study has now concluded. A small group who lived in Southern California were selected for the smog sub-study which continues to this day.

AHS-2 began 14 years ago. It includes 96,000 participants from across the U.S. and Canada and continues to this day. From this group 11,000 were randomly selected to be a part of the Adventist Religion and Health Study.

◆ Why study Adventists? We are ideal for these types of studies because a majority of us do not smoke or drink. These are habits that can cause distortions in results, but because these habits are largely absent in this population, it makes studying the effects of other lifestyle choices much easier and clearer. In addition, Adventists have a range of dietary habits, from strict vegetarians to a fairly typical American western diet. This means researchers can monitor the effects of a range of diets on a person's health.

◆ These studies have generated an enormous amount of positive attention for our church and more than 425 articles in peer reviewed scientific journals, a National Geographic cover article, and countless articles and mentions in every type of media. Studies like these do not come cheap! We can be very grateful to the U.S. National Institutes of Health (NIH) for the millions and millions of dollars they have put into this research.

- ◆ The most important take-home message from AHS-1 is that Adventists in California die at an older age whatever the the cause of death—we still die, and we die from the same causes like heart disease, stroke and cancer. This appears to be attributable to less meat, more fruits, vegetables, nuts, and soy products.
- ◆ AHS-2, which is on going today, includes almost 100,000 people from across North America and Canada. Included in this study population are 25,000 Black Americans, which the first study did not have. The average age at enrollment was 58.7 years, ranging from 30-110 years old! Sixty-five percent are women and thirty-five percent are men.
- ◆ The main focus of this study is to learn what the effects of meats, dairy products, dietary fats, soy, vegetables and body weight are on common cancers, as well as to develop a clearer picture of diet and disease in African-Americans.
- ◆ So, what do we look like? All of the following data is preliminary as the study has not concluded. The end point of this kind of study is death, and Adventists die slowly—so we have to wait for more deaths.
- ◆ Almost 99% either never smoked or were past smokers.
- ◆ Nearly 93% of participants had never or only past use of alcohol. The almost 7% who currently use alcohol are of significant concern.
- ◆ Almost 70% report they have never used coffee, while 22.5% say they use 1 cup or less per day, and 8.5% report drinking 2 or more cups per day.
- ◆ When it comes to diet, there is no question that participants love fruit!—just under 3 servings per day! We probably should consume more cruciferous vegetables, along with tomatoes and legumes.
- ◆ It is virtually impossible and prohibitively expensive to analyze everything each participant eats. The calibration studies validated the accuracy of the AHS-2 questions on diet, though. Identifying dietary patterns is a very useful method of studying dietary differences in this kind of study. AHS-2 is looking at 5 dietary patterns: review slide.

◆ The largest dietary group are the non-vegetarians at 44%. The lacto-ovo are the next largest group at 31.4%. Pesco and total vegetarians are almost equal in number at 10.2% and 9.4% respectively. Semi-vegetarians composed 5%.

◆ When we look at dietary choices by age group we see that there is a shift that takes place as the population ages. The exact reason is not fully understood. Is it because as we get older we begin to experience the frailties of life and pay more attention to healthy choices? Or, maybe the non-vegetarians don't live as long, leaving more vegetarians in the older age group.

◆ Among those consuming meat, both white and Black non-vegetarians consume significantly less meat per day than the general population.

◆ When it comes to calcium intake, all consume adequate amounts when compared to the WHO recommendations. This data includes dietary and supplements used.

◆ The same is true for vitamin B12. All groups appear to consume sufficient amounts of this vitamin, either from supplements or their diet. Let's look at some risk factors by dietary pattern. It should be noted that the next few slides are based on self-reported data.

◆ As you can see in both female and male subjects, the total and the lacto-ovo vegetarians were the leanest, and the non-vegetarians the heaviest. Leaner SDAs tend to follow a plant based diet, exercise vigorously and have a very low prevalence of smoking. (ASH-1: Very old [75-99] a BMI >22 in males was associated with a significant 3.7 decrease in life expectancy; in women >27 it was associated with a significant 2.1 year decrease.)

◆ A very small number of total vegetarians reported being treated for hypertension, while 266 times as many non-vegetarians were being treated for hypertension. A nice dose-response relationship is illustrated here.

◆ The results were similar for those reporting a high cholesterol level—also a nice dose-response relationship.

- ◆ Dietary pattern appeared to also influence the percent who reported being treated for type 2 diabetes.
- ◆ When total mortality (death from all causes) is compared with the dietary pattern there are some important differences. Those in the non-vegetarian category are given a relative risk of 1.00. If the risk is greater for another category the number will be greater than 1 and if the risk is smaller the number will be less than 1. You can see that the numbers for all other patterns are less than 1, with the pesco being the lowest.
- ◆ In this slide we look at the use of red meat and its effect on total mortality. This time we are comparing no consumption of red meat with either 1/3, 2/3, or 1 serving of red meat per day. You can easily see that with increasing amounts of red meat the risk of all-cause mortality increases significantly.
- ◆ When CHD mortality is compared with the dietary patterns, the non-vegetarian has the greatest risk, with the pesco-vegetarian being 20% less.
- ◆ The comparisons are similar for all types of cancer, although the differences are not as great.
- ◆ When red meat and colon cancer are compared, we see a significant impact of even relatively small amounts per day. Red meat in particular significantly raises the risk of all-cause mortality and cancer of the colon. We hear arguments about whether or not it is better to be a total vegetarian or a lacto-ovo vegetarian. The data clearly demonstrates those differences are relatively small compared to the increased risk of those who use red meat.
- ◆ When it comes to breast cancer, a total vegetarian diet is associated with a reduced risk of both post and pre-menopausal breast cancer. Preliminary evidence suggests this benefit could be to consumption of soy isoflavones.
- ◆ What about prostate cancer in men? Total vegetarians appear to have the lowest risk, and the protection is similar between whites and Blacks. Could this also be due to the consumption of soy isoflavones? Consumption of soy products appears to reduce the risk of aggressive prostate cancers in white men only. Could it be the lycopene

found in tomatoes that reduces the risk of this cancer? Cooking/processing of tomatoes increases availability of a form of lycopene most readily absorbed.

◆ The Adventist Religion and Health Study began in 2006 and includes almost 11,000 enrolled in AHS-2 with 3,764 of those Black Americans. This group completed an additional 20-page questionnaire assessing faith, worship, prayer, Sabbath, social, psychological, and stress factors.

◆ *“Faith in God's love and overruling providence lightens the burdens of anxiety and care. It fills the heart with joy and contentment in the highest or the lowliest lot. Religion tends directly to promote health, to lengthen life, and to heighten our enjoyment of all its blessings.”* Patriarchs and Prophets, p. 600 (1890)

◆ The major discoveries from the ARHS so far include the following. Adventists have a better physical and mental quality of life than others. With age, physical quality of life decreases but mental quality of life tends to increase. Black Adventists tend to have better mental health than White Adventists. There is an inverse association between religious coping and depression. Sabbath-keeping is associated with better mental and physical quality of life. Individuals who engaged in secular activities on Sabbath had poorer reported physical health. Those who said Sabbath relieved tensions and promoted feelings of calm and peace reported better mental health.

◆ The vegetarian advantage is very clear almost everywhere!

◆ What is the optimum vegetarian diet? Well, so far pure vegetarians look very good, but not convincingly superior to lacto-ovo vegetarians. As the data grows more robust we will keep looking.

◆ Overall conclusions: Vegetarian diets have clear and important effects on risk of chronic disease. Diets are very complex and dissecting out the active components is difficult, but an on-going task in AHS-2. Which type of vegetarian diet is best will probably have no simple answer, as one diet is unlikely to be best for all disease outcomes. Strong conclusions require strong evidence—AHS-2 will help provide this evidence.

◆ The evidence is right now sufficient to support a diet that may still include some lacto-ovo foods (used primarily as condiments); but is otherwise plant-based, or trends strongly in that direction, and avoids all red meats! If you wait to modify your lifestyle until all the details are known--for sure you will be dead!

◆ Should you choose to consume a healthy, animal-free vegetarian diet here are some guidelines. Ensure ample grains, vegetables, legumes, fruits, nuts, seeds and berries. Avoid replacing animal foods by refined, sweet, fatty commercial products, even if they are from plant sources. Obtain adequate sunlight and emphasize high calcium vegetables, or supplement with calcium. Consider algal supplements high in omega-3 fatty acids. Supplement with vitamin B12 regularly.

◆ Finding balance in an unbalanced world is a challenge. Diet is not the only aspect of the SDA health message! We need to exercise adequately every day, get enough sleep, live a temperate and balanced life avoiding the harmful things and using the good things in moderation...

◆ Too many Seventh-day Adventists are often quick to latch onto spurious health claims: "No Oil Diet", Raw vs Cooked Food, Zone Diet, excessive mastication, Wheat Belly / Grain Brain, Vegan Diet as the "Gold Standard" to name just a few.

Balance is sometimes a very elusive goal. It is a very relative concept, ◆ because the only balanced person is YOU! ◆ Those who are one or two steps ahead of you are the fanatical fringe, and ◆ those a step or two behind you are the bleeding heart liberals! Right?

◆ In the world of health and science it is essential that we learn the basics of how to evaluate scientific claims. Here are a few suggestions. Carefully evaluate the **messenger**: Are they really who they claim to be? Did they get the education they claim to have? Do their peers in that field agree with them? Is their life consistent with their message? ◆ Critically evaluate the **message** being presented: Is there good research to back up the claims? Are the results consistent? Has this been corroborated by other research?

Sometimes we forget the significance of a balanced, scientific approach. ♦ A wise man gave me good advice many years ago: “Remember, in every audience you speak to, there may be someone in attendance who knows more about at least a small area than you do. Don’t disappoint them by your ignorance! Don’t make things up!”

♦ Ellen White wrote long ago, “If they see that we are intelligent with regard to health, they will be more ready to believe that we are sound in bible doctrines.” Counsels on Health p 452 When we fall prey to ignorance, extremism, and fads we jeopardize our ability to communicate the message of Scripture.

Many people recognize the importance of a healthy, wholesome lifestyle, but they don’t believe they can pull it all together at the same time. ♦ They may choose to eat carelessly, but exercise vigorously on a regular basis. Will that help them? Or maybe the other way around, they are couch potatoes, but are scrupulously careful with their diet. Science informs us that we can balance a bad habit with one or more good ones so a certain extent. This concept, while supported by science, can also be a dangerous trap. The New Age philosophers teach that we must have equal amounts of good and bad in order to attain balance and optimum health. This is an unBiblical concept.

♦ The Bible teaches that only through Jesus we can overcome all bad habits, thereby experiencing wholeness and balance. “In looking to Jesus, by studying His life and character, by earnestly desiring to be like Him, our minds will be balanced in the right direction, that we may overcome selfishness, and choose a course of righteousness. . . .” SD 159

♦ Balanced living can only be accomplished through the Grace and strength of Christ. It is He who empowers us to overcome the bad habits of life. “I can do all things through Christ who gives me strength.” Phil 4:13. The harmful things can be removed from our lives, and through His power we can be focused on the good, thereby achieving balance.

When my life is being balanced by Jesus. When Christ is central to my life. When I have been forgiven by Him, when I have been strengthened by Him... It fills my life with joy, and gives me understanding and love for others who are walking the same pathway. He

teaches me that I need to grow each day--physically, mentally, spiritually--and I can only do that through His strength. I then cannot be critical of others who live differently than I do, but rather am compelled to help them in a loving and understanding way.

◆ Gratefully accept the health God gives me...

◆ Focus my lifestyle choices only on the healthful and wholesome.

◆ Cheerfully yield my desires and appetites to the sovereignty of His love.

◆ I can then...Rejoice in the benefits He grants me as I make wholesome choices through His abundant Grace.

◆ “So whether you eat or drink or whatever you do, do it all for the glory of God.” I  
Cor 10:31

Links to animated balances: <https://www.youtube.com/watch?v=9ScyVvclC3M> or  
<https://www.youtube.com/watch?v=9Xahg8YH8Go>