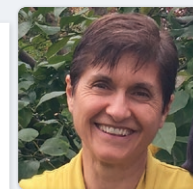


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The Adventist “health message” unpacked

Since its organization as a denomination in the mid-nineteenth century, the Seventh-day Adventist Church has been advocating the counsel of the church’s primary health reformer, Ellen G. White, which emphasizes the role of lifestyle in promoting health, happiness, and enhanced spirituality.¹ In 1905, Ellen White consolidated her counsel into this concise statement: “Pure air, sunlight, abstemiousness, rest, exercise, proper diet, use of water, trust in divine power—these are the true remedies.”² Consequently, it is not surprising that research on the health of Seventh-day Adventists since the 1950s has shown that they appear to enjoy low rates of chronic diseases and lower total mortality, despite living in areas where chronic diseases are prevalent.³ Science is only now validating the significance of this nineteenth century counsel and its importance for physical and mental health, as chronic disease rates escalate in the twenty-first century. Let’s examine these elements and see what science has discovered about each of them.

Pure air

Poor-quality air and air pollution are linked to cardiopulmonary disease (heart attacks, stroke, heart failure), cancer, asthma, and premature mortality.⁴ This will only worsen as climate change progresses.⁵ However, green space filters harmful pollutants in the

air and also provides cooling effects during heat waves—providing a positive effect on health and well-being.⁶ Not only does a walk in nature benefit our lungs but it is also associated with benefits to mental health—decreased depression and perceived stress—and improved well-being.⁷ Walking in green space dampens the subgenual prefrontal cortex, the area of the brain that elicits rumination. Instead of focusing on how bad life is, we feel more positive as we walk in a natural setting.⁸

Stress, an acute normal sympathetic nervous response to danger, has become chronic in our fast-paced world. During stress our breathing is shallow and rapid, but it can be switched to a relaxed or parasympathetic response through rhythmic deep breathing.⁹ This type of breathing fills the lungs down to the diaphragm and improves overall health, including the immune system, while also reducing stress. Try doing this two to three times per day. Breathe in while slowly counting to five. Hold for a count, then breathe out slowly for five counts, again holding for a count. You should aim for four to six of these repetitions per minute. Repeat this for two to five minutes, two to three times per day—and try to get into green space as often as you can.

Sunlight

Apart from producing vitamin D, which is important for the whole of body

health (low levels of vitamin D are linked to chronic disease—obesity, heart disease, stroke, diabetes, cancer, multiple sclerosis, autoimmune diseases, allergies, and mental illness, as well as bone integrity),¹⁰ sunlight is also important for our daily biological clock (circadian rhythm).¹¹ A condition called seasonal affective disorder (SAD), otherwise known as the winter blues (sadness, depression, and fatigue), has been observed in people living in areas where winters have shorter days and longer nights.¹² Being indoors all day and not getting enough sunlight can also produce SAD.¹³

Indoor light is about 100 lux (a measure of light intensity), but a bright sunny day produces 50,000 lux or more; an overcast day, 1,000 to 2,000 lux; and watching the sunrise or sunset 400 lux. Health authorities recommend 10,000 lux for 30 minutes daily. Light boxes delivering this amount of light can be used to treat SAD. But why not use the sun for its other benefits, such as vitamin D and blue light, which wake us up in the morning, making us alert and improving our mood and performance?¹⁴ (More on the blue light later in the section on rest.) Daily sun exposure is important for the whole of body health, but to reduce skin cancer risk make sure to limit this when the sun’s UV rays are at their highest.

Temperance

Temperance means to be self-disciplined, abstinent, or sober. The

desire for more and more is not only driving stress and affecting our mental and physical health but is also destroying the planet. Temperance involves abstaining from alcohol, harmful drugs, and unhealthy foods. It includes the avoidance of eating more than our bodies require, as well as the wrong types of foods, which fuel low-grade systemic inflammation, contributing to the development of chronic disease leading to premature death.¹⁵

Reduced calorie intake (fasting), without sacrificing nutrient intake (best achieved with a low-fat, whole-food, plant-based diet), is a predictor of longevity.¹⁶ There are many ways to achieve calorie restriction, but intermittent fasting is the easiest to implement and seems to be just as effective as other more stringent methods. It is achieved by exposing the body to 12–16 hours without food each day—most easily achieved by not eating after dinner until breakfast.

Temperance, however, is more than diet and abstaining. It involves finding

balance in all our activities and behaviors that may be, in themselves, good in nature. Temperance is about avoiding any harmful substance and using with balance even those things that are good. It is more comprehensive than diet. It includes temperance of time management in work,¹⁷ ministry, exercise, healthy eating, and any other activity. It is inclusive of food but not limited to it.

Rest

Rest includes avoiding overwork, adequate holiday time, proper relaxation, and sufficient sleep. Sleep is important for processing of information and experiences to form memories, optimizing body metabolism and maintaining body weight, maintaining a healthy immune system and mental health, and reducing the risk of chronic disease.

We are not getting enough sleep in this fast-paced world, and blue light at night contributes to this. Sunsets and fires (the only source of light at night

for most of earth's history) are red-orange and produce a calming effect. Light globes and modern technological devices, such as TVs, computers, iPads, and mobile phones, emit blue light, which disrupts our circadian rhythm, hormones (low melatonin is associated with cancer), and sleep. Even dim light (8 lux) from a table lamp can interfere with a person's circadian rhythm and melatonin secretion. Melatonin is important for effective sleep at night and for good mood and alertness during the day.

Melatonin levels can be protected by exposure to bright light during the day (as discussed in the earlier sunlight section), wearing blue-light-blocking goggles, and installing programs on your devices that change the blue light to red by following the rising and setting of the sun. Aim to get seven to eight hours sleep per night.

Rest also includes the Sabbath, which is our way to remember our need of the Creator and to reconnect with Him, family, and others. Not only

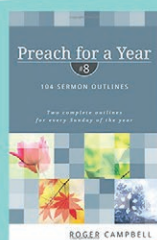


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is it a day of refreshing and an antidote to stress but its observance brings many health benefits. Studies on Israeli residents found a significant reduction in the number of deaths among Jews toward the weekend, culminating in fewer deaths on Saturday and more on Sunday. This trend was not found for the non-Jewish Arab population or around other national or religious festivals. Studies on Seventh-day Adventists highlighted the benefits of Sabbath keeping for physical and mental health. These were mediated in part through four pathways: religious

Study identified the key lifestyle factors associated with increasing longevity by ten years as being physically active, not smoking, eating nuts regularly, being vegetarian, and maintaining a healthy body weight.²³

For greater health benefits, the physical activity guidelines recommend being active on most days of the week, with 150 to 300 minutes (2½ to 5 hours) of moderate-intensity physical activity (for vigorous physical activity, only half the time is needed).²⁴ A 20-minute brisk walk after each meal would meet the requirement for moderate activity and

mortality from the diseases common in other western countries—including much lower rates of dementia.²⁶

Unlike the other four areas, which have been around for thousands of years, Loma Linda Adventists live in mainstream North American culture. Despite being surrounded by unhealthy lifestyle practices and burgeoning chronic disease rates, they live on average ten years longer and with less disease than do their neighbors. Therefore, practicing the Adventist diet and lifestyle is possible for people living in cultures where chronic disease is rampant. After all, food changes our biological “software” for better or for worse with every single bite. So think about what you put into your mouth: eat the food that God made, including a great variety of colors and types, but stay away from the foods that man made, which are the processed foods high in sugar and fat.

Temperance is about avoiding any harmful substance and using with balance even those things that are good.

coping, religious support, diet, and exercise.¹⁸ Benefit from this guilt-free day off each week.

Exercise

Exercise is good medicine. People who exercise enjoy a higher quality of life, improved health status, and lower hospital admissions compared to people who are sedentary. People who exercise regularly enjoy less chronic disease, arthritis, and respiratory illnesses,¹⁹ less joint pain, better immunity,²⁰ lower risk of premature death, and better thinking skills and memory.²¹

Physical inactivity has been ranked the fifth leading cause of disease burden in Western Europe and is more important than smoking, obesity, and high blood pressure as a cause of heart disease. In fact, exercise may be just as important as drug interventions in the secondary prevention of coronary heart disease, rehabilitation after stroke, treatment of heart failure, and prevention of diabetes.²² Furthermore, the Adventist Health

would decrease blood glucose levels at the same time! For optimal health, muscle strengthening activities should be done on at least two days each week. Time spent sitting, as typically found in the western lifestyle, is also linked to premature death. So if your lifestyle does not include moving, make sure you break up each hour of sitting time with just two minutes of light-intensity activity.²⁵

Proper Diet

The five blue zones are five areas of the world where people live the longest: Japanese in Okinawa, Italians in Sardinia, Costa Ricans in Nicoya, Greeks in Icaria, and Seventh-day Adventists in Loma Linda. One of the common ingredients for each of these groups is the consumption of a largely whole-food, plant-based diet, rich in legumes, whole grains, fruit, vegetables, nuts, and seeds, with very few or no animal foods. And as a result they are living to more than 100 years and have the highest life expectancy or the lowest rate of middle-age

Water

The human body can last weeks without food but only days without water. Water is essential for every cell and body process. Water maintains the integrity of every cell, helps eliminate waste products, regulates body temperature, lubricates and cushions joints, aids digestion and prevents constipation, carries nutrients and oxygen to the cells, maintains the flow of blood, moistens the skin to maintain its structure, and moistens the membranes of the lungs and mouth. The body can't store water and loses up to three liters every day, more in hot weather, through the lungs (breathing), skin (sweating), urine, and feces. Once thirst is experienced, the body has already started to dehydrate. To prevent this, the average adult female needs about two liters and the average adult male needs about two and a half liters of fluid, ideally pure, clean water, every day. More water is required during physical activity, in times of vomiting and diarrhea, in warm or hot environments, and for pregnant women coping with the demands of a changing body.

Drinks containing caffeine, such as tea, coffee, energy drinks, and

sugar-sweetened drinks act as diuretics, increasing the loss of water from the body and contributing to dehydration, and should be avoided. Intake of free sugars, particularly sugar-sweetened drinks, increases overall energy intake and may increase the intake of nutrient-poor, high-calorie foods, leading to an unhealthy diet, weight gain, and increased risk of chronic disease and tooth decay. Sugar-sweetened drinks have been linked to almost 200,000 deaths worldwide every year. Therefore, the World Health Organization has strongly recommended that in sugar-sweetened drinks, no more than six teaspoons should come from free sugars.²⁷ Free sugars include sugar added to foods and beverages commercially and at home and sugars naturally present in honey, syrups, fruit juices, and fruit juice concentrates but not sugars naturally occurring in plant foods.²⁸

Trust in Divine Power

Belief in the existence of a personal, transcendent God who loves and cares about humans, is responsive to their needs, is in control, and will ultimately work all things together for good has positive effects on mental and physical health. Beliefs about where we came from, why we are here, and where we are going give meaning to life and remove anxiety about the future.

Trust in divine power boosts positive emotions and helps neutralize negative emotions, serving both to enhance life and increase coping skills as negative life events are put into proper context. Individuals with these beliefs have greater well-being, happiness, hope, optimism, and gratefulness and are less likely to experience depression, suicide, anxiety, psychosis, substance abuse, delinquency, crime, and marital instability.²⁹ Ellen White stated, “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.”³⁰

Conclusion

The emerging science of epigenetics has shown us that our genes are not our fate. Our genes have a switch that can be turned on and off by diet. This switch, called the epigenome, sits on top of our DNA. But it is not only diet that can turn our genes switches on and off. A week of sleep deprivation was found to alter the function of 711 genes, including some involved in metabolism, inflammation, immunity, and stress.³¹

Even just 20 minutes of exercise changed the epigenome and gene expression in human muscle cells for hours.³² Just 45 minutes of moderate exercise four times per week for three months was able to alter the genes involved in energy metabolism, insulin response, and inflammation.³³ Brisk walking for about an hour per day can cut the effect of 32 obesity-promoting genes in half.

Smoking, stress, and pollution also affect the epigenome. In a classic experiment, men with prostate cancer were allocated to lifestyle intervention (low-fat, plant-based diet; physical activity; stress management; and social support) or watchful waiting.³⁴ In just three months, 500 cancer promoter genes were turned off and 50 cancer suppressor genes were turned on in the intervention group. Lifestyle is medicine, and our Creator is now showing us through science how His prescription enables us to live life to the full (John 10:10).

The science is in: the principles enunciated in this article really do help us physically and mentally. And no wonder, considering that God is their ultimate source. The body, mind, and spirit interact with each other, and what affects one part affects the whole being. Ellen White further tells us, “It cannot be to the glory of God for His children to have sickly bodies or dwarfed minds.”³⁵ But believing in something, even having scientific “confirmation” of it, is not the same as making it our own, a choice that we each, ourselves, have to make.

Clearly, to be effective shepherds of Christ’s flock, pastors have a responsibility to thoroughly examine and live

the health message for themselves. Then they are to be examples as they impart this knowledge to His church so that Christ cannot say, “‘My people are destroyed from lack of knowledge’” (Hos. 4:6, NIV). My prayer for pastors is “that you may enjoy good health and that all may go well with you, even as your soul is getting along well” (3 John 2, NIV). 

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