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## Are YOU Blue: The Key to Living to 100

Lauren Ulsas

There are five locations in the world that have the highest rates of centenarians in the world. A centenarian is an individual who lives until the age of 100. These places have been entitled “the blue zones”. While these blue zones are located all throughout the globe, there are certain commonalities among them. Some common practices of the individuals living in these locations include leading an active life, eating well, establishing strong bonds, and feeling a sense of purpose. In theory, these practices may sound easy, but there are several limitations and barriers that prevent those living outside of these zones from adopting this kind of lifestyle. Limitations can include access to healthy food, the ability to exercise regularly, and finding a close-knit sense of community. While these limitations would require further research, there are ways that individuals can incorporate some of the blue zone practices in a way that is best suited to one’s lifestyle.

**Keywords:** *centenarian, blue zones, healthy lifestyle*

In five areas of the world, there are populations that have significantly longer life expectancies in comparison to the rest of the world, and specifically large populations of people who live to be over 100 years old, also known as centenarians.<sup>1</sup> These places have been titled “blue zones” throughout the world. These five blue zones are in Sardinia, Italy; Okinawa Japan; Loma Linda, California; Nicoya, Costa Rica; and Ikaria, Greece. In these locations, chronic illness is less present, and less money is spent on healthcare. In Ikaria, for example, the individuals of this city have lower rates of cancer by 20%, minimal dementia, and 50% lower rates of heart disease.<sup>2</sup> These blue zones are located across the world, so what do these places have in common? What exactly is contributing to these populations’ longevity? There are multitudes of factors that can play a role in how long a given individual will live, and there are several practices that are shared between all blue zones. Many factors that contribute to these populations’ longevity are largely related to lifestyle, such as physical activity, specific diets, and prioritizing religion and personal relationships.<sup>2</sup> The blue zones have superior health compared to other areas of the world, which can be attributed to many lifestyle factors that could be implemented into an individual’s daily life.

While the blue zones are spread throughout the globe, they all share some key elements that are part of what has been coined the “blue zone 9”. One common practice is to exercise naturally.<sup>3</sup> In other words, individuals living in these areas do not exercise intentionally, but instead practice an active lifestyle that includes activities like gardening, walking, and farming.<sup>2</sup> This kind of movement targets all aspects of the body, whereas a specific workout may only target certain muscle groups. A natural movement type of exercise may be more beneficial in the long run because it strengthens the whole body.

On the dietary side, other aspects of the “blue zone 9” are to eat in moderation, emphasize plants in a diet, and drink wine in moderation. These populations practice eating in moderation and stop eating when they are about 80% full. There is an Okinawan mantra called “hara hachi bu”, which emphasizes mindfulness in eating and prevents people from overeating. The basic notion of this practice is to eat until one is no longer hungry, as opposed to when one is full. The Okinawan calorie intake is estimated to be about 1900 calories a day, which is right around the average person’s recommended caloric intake.<sup>4</sup> Another common practice of the people in the blue zones is to eat mostly a plant-based diet, which is a commonality in all featured populations, as they eat a diet emphasized on leafy greens, lentils, fruits, nuts, and whole grains. Although the blue zone populations eat meat, their intake is heavily reduced compared to an average American diet. For example, in Sardinia meat is typically eaten once a week or saved for special occasions.<sup>2</sup> Another common dietary theme among blue zones is to drink wine in moderation, about 1 to 2 glasses a day. Red wine specifically can have antioxidant properties, which can be beneficial for cardiovascular health.<sup>5</sup> This combination of practicing mindful eating, consuming plant rich diets, and drinking wine in moderation contributes to the blue zone population’s longevity.

In terms of cultural values, the “blue zone 9” highlights the importance of purpose, prioritizing personal relationships, following a religion, and alleviating stress. In Nicoya, the people have a mantra called “plan de vida”, which roughly translates to “why I wake up in the morning”.<sup>2</sup> Having a sense of purpose in life is a core value of these populations and has been attributed to lower mortality.<sup>6</sup> Many of the populations also practice some form of religion. In Loma Linda, much of the population is part of the Adventist community, which practices prayer, observes the Sabbath, and rests for a

full day each week. Ikaria also has a good method to decompress from stress by implementing naps as part of a daily routine. Taking regular naps is associated with a 35% lower risk of dying from heart disease.<sup>2</sup> From these populations, it is demonstrated that stress reduction, finding a purpose, and feelings of belonging can also contribute to a person's life expectancy.

While the people who live in blue zones receive the benefits, these lifestyle changes can be made and implemented by the rest of the world. It is very easy to tell everyone to eat more vegetables and to be more active; however, there are limitations to implementing this kind of lifestyle. The United States specifically, is less walkable compared to many other developed countries.<sup>7</sup> Because walking for everyday tasks, such as grocery shopping, is less accessible to people, sedentary lifestyles are much more common. Reduced walkability also correlates to obesity and access to food. In the United States, those who rate their cities to be more walkable, report having greater access to produce and nutritious foods, as well as greater feelings of safety and social cohesion.<sup>8</sup> Essentially, what this means is that many of the factors previously mentioned, such as diet, exercise, and social circumstances, are interrelated. Therefore, before adopting the lifestyle of the blue zones, access to food, walkability, and safety would need to improve. Further research and an impetus for change, in terms of access to healthy food and exercise, would be needed to make this lifestyle more realistic in many areas of the country.

Despite barriers on a large-scale societal framework to implementing this lifestyle, changes can be made at an individual level. For example, there are numerous ways to add exercise in the form of natural movement. This could include activities such as cleaning, participating in community or individual gardens, and of course walking, if accessible. Gardening is not only a way to achieve the natural movement aspect of the blue zone lifestyle, but it can also address diet by growing produce and improving access to nutritious, plant-based foods. Even if all features of the blue zone diet may not work for everyone, aspects of the diet can work to fit the needs of an individual. Some habits like portion control and the 80% rule can be implemented more universally. In terms of culture, the main emphasis from the blue zones is the importance of relationships and the feeling of belonging. These values can mean essentially whatever they want to an individual. Whether that be building relationships and purpose through work, involvement in groups, attending a church, or simply building relationships with friends and family. This aspect simply requires finding other individuals with similar passions, as well as taking a deeper dive into self exploration.

The blue zones are a great example of what could be, in that they demonstrate specific lifestyles that are primed to live a long and healthy life. By comparing these territories to the rest of the world, the blue zones highlight some of the barriers and limitations that other parts of the world may face. For this kind of lifestyle to

be implemented on a larger scale, serious changes would need to be made. Even those who do not live in a blue zone can achieve longevity by adopting certain key aspects. If you exercise naturally, eat nutritious and properly portioned food, drink in moderation, and find a purpose you too can live to 100!

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