

Living Longer and Healthier in "Blue Zones": What Conclusions Can We Draw from This?

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ABSTRACT

The existence of "blue zones" in the form of islands is as indisputable as the better health and higher life expectancy found there. The living conditions of the inhabitants there are well known; they contrast with today's stressful and unnatural life in a big city. Here we consider the extent to which the sea, the waves, the surf, the spray and the sandy beach can have a positive effect via excited electrons, the piezo effect and singlet oxygen. Parallels are drawn with the well-known waterfall effect/balloelectricity. The conclusion is that these effects should be incorporated into life as far as possible.

INTRODUCTION

Who wouldn't want to live longer and be healthy at the same time? Genetically, 130 years is possible, as long as the lifestyle does not stand in the way. Blue zones are regions of the world where people live longer and healthier than average. Researchers such as Dan Buettner (1,2,3,4) and Norman Hollenberg (5,6,7,8) have studied them.

The inhabitants often live to be over 100 years old without the typical diseases of old age. Some such blue zones are:

1. Okinawa, Japan: many women over 100 years old.
2. Sardinia, Italy: many men over 100 years old.
3. Ikaria, Greece: hardly any heart disease or dementia.
4. Nicoya Peninsula, Costa Rica: hardly any chronic diseases.
5. Crete, Greece: so-called Mediterranean diet.
6. San Blas/Guna Yala, Panama: hardly any cardiovascular diseases

Common characteristics include

1. Healthy diet: plant-based diet with lots of vegetables, pulses, natural oils, algae, fruit, wholegrain products, nuts. Less industrially processed food, less meat, more fish. And: only eat 80% of what you want.
2. Exercise: Natural movement, e.g. gardening, without sport or ambition.
3. Social ties: Family networks, security, lots of social contacts.
4. Meaning in life: Clear foundations in life, satisfaction, e.g. "Ikigai" in Okinawa.
5. Stress management: Breaks, prayers, rituals, relaxation, "meeting in the tavern".
6. Moderate lifestyle: Regular - but moderate - red wine and/or smoking.
7. Environment: Natural environment, no industry, few chemicals.
8. High consumption of cocoa (flavonoids/ polyphenols against free radicals).

ISLANDS AND THE SEA SPRAY

It is striking that when inhabitants of these zones move to larger cities, their health benefits disappear after a few years. This speaks against a predominance of genetic causes, but rather in favor of a life-promoting and natural lifestyle.

What else is striking? The blue zones are all islands. This is likely to have the following effects: a) no long journeys, but living in familiar surroundings ("living where others go on vacation"). b) few influences from stressful, exciting media and information transmissions, c) regularity in life expressions, d) walking barefoot on the sand of the beach, e) physical contact with the sea or wind from the sea.

The latter has been given too little consideration so far, let's take a closer look at it. Characteristic of this is the spray, i.e. the foam, when waves hit the coasts/beaches, roll over, or the waves are stirred up by the wind. The seawater in the spray contains salts, minerals and trace elements, but also algae residues or microorganisms such as plankton, containing natural surfactants. These are mixed with air bubbles, which form aerosols when they burst (Figure 1).



Fig. 1: Spray when waves hit the beach: surf

THE WATERFALL EFFECT

There is a comparison to this, it is the waterfall effect/Lenard effect/balloelectricity (9,10,11,12), when the water hits the bottom and is rising mist forms. These aerosols are electrically charged and are known to have positive effects on the respiratory, nervous and immune systems: they reduce inflammation, moisturize mucous membranes, relax and calm stress. It is well known that Indians (indigenous American cultures such as the Iroquois and Algonquins) preferred to bring their sick to the foot of waterfalls, where they could heal in this air. At the same time, waterfalls were considered sacred places where spiritual cleansing could take place in contact with the power of nature and water spirits (nymphs, etc.). The German priest S. Kneipp also used water sprinkled on the body (known as 'pouring') for healing purposes (13,14).

The water below waterfalls is undoubtedly of high quality, it can be compared with the fourth water phase according to Gerald H. Pollack ("Exclusion Zone (EZ) Water", hexagonal H3O2), i.e. as liquid crystal (15,16,17,18,19). The water flowing out of glaciers, e.g. in Iceland (20,21), combined with a waterfall, is marketed as basic drinking water of the highest quality (ICEIS water, 22). Similarly, the water researcher Viktor Schauberger assigned this special energetic and vital quality to the swirling water of streams («vortex hydrogen water», 23,24). Both

researchers regard natural water as a carrier and storage medium for positive information and energy, similar to homeopathic lotions.

STIMULATED ELECTRONS

As seawater is richer in content than fresh water, the sea has an even greater potential healing effect. So what is the secret in these descriptions of sea spray, glacier water, water vortices or waterfall water? It is the excited, negatively charged electrons. (25) Excited electrons are electrons that are shifted from their ground state to a raised energy state by the addition of energy. In this state they are more labile and can absorb, store and transfer energy. Energy can be supplied by light (lightning, infrared light from the sun), but also mechanically, as in the case of overturning waves, vortices or an impact. Electrical conductivity and energy availability (e.g. for body cells with their negative membrane potential of - 80mV) are thus increased. Excited electrons cause EZ water to have a higher level of order, which increases the efficiency of biological processes such as charge separation and enzyme activity. These electrons also act as antioxidants, they can neutralize free radicals and thus eliminate a major factor in degeneration and chronic diseases, similar to flavonoids, such as in cocoa.

THE PIEZO EFFECT IN SAND

Why do brochures for a healthy life in old age regularly show a couple walking on the sand by the sea and looking happy? In addition to the factor of inhaling the sea spray, it is the beach sand together with the earthing/grounding effect of walking with bare feet. Sea sand consists of silicates or quartz crystals that enable a piezo effect, which means nothing other than the absorption of currents of excited electrons into the soles of the feet. (26,27,28,29,30) If the waves of the surf hit the sand, this can also cause a piezo effect. It can also be assumed that the oxygen in the tiny aerosols is partly converted into the biologically effective and non-aggressive form of singlet oxygen. (31,32,33,34) This can occur through: a) photochemical formation by photosensitizers and the UV component of sunlight, b) ozone interactions in the aerosol phase of the spray, c) mechanical processes when the surf overturns. Although the lifetime of singlet oxygen is short, it is extended in water droplets. (35,36). It is therefore correct that there is hardly anything healthier than walking on the sea sand on the beach, preferably with deep breathing.

CONCLUSION

Let us return to the Blue Zones: could it be that these aerosol droplets and electrons are blown by the wind into the interior of the islands, where they can carry out their life-giving electrical effects? Research (37,38) suggests that people living near the coast or a beach are healthier than those living inland. Living in cities, on the other hand, shortens life expectancy. Let's compare the large cities of Tokyo (by the sea) and Mexico City (inland), which are roughly the same size: Tokyo: 84.7 years (2021), Mexico City: 75.1 years (2023). The difference is significant and confirms the above thesis.

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