

Intensive breathing, boiling water and other sources of positive electrification of the body, which contribute to the development of various pathologies, including cancer

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Abstract

Considering that water is the main substance filling cells, McIntyre put forward the hypothesis that it is the excess accumulation of water by cells that is a necessary condition for their division, including unlimited, that is, cancerous, division. Developing McIntyre's hypothesis, it was shown over time that cells are only able to accumulate positively charged water, but cannot retain negatively charged water, which therefore does not promote cell division and is thus beneficial for cancer patients. In addition, it has been shown that the accumulation of positively charged water in tissues contributes to thrombosis of their blood vessels, which underlies a number of diseases, including cancer. Taking all of the above into account, it was eventually concluded that information about the most common sources of both positively and negatively charged water deserves the attention of both physicians and their patients. To make this conclusion truly useful, it is proposed to consider here some of the most common sources of water with certainly opposite charges.

Keywords: thrombosis; cancer; slow breathing; pranayama; hydrogen therapy; microbiota

Introduction

The fact that water is the main substance of every living cell [1 – 3] undoubtedly allows concluding that water accumulation by cells is a necessary condition for their division; moreover, this same fact also allows concluding that without this accumulation, cell division is completely impossible. Apparently, taking into account precisely this fact, McIntyre put forward the hypothesis that it is the excessive accumulation of water by cells that is a necessary condition for their division, including unlimited, that is, cancerous division [4, 5]. However, McIntyre's hypothesis, despite its appeal, did not offer ways to regulate water accumulation in cells and therefore remained idealistic. Taking this into account and in an effort to make McIntyre's hypothesis more realistic, water electrification was proposed as a means of controlling its accumulation in cells. In particular, it was proposed to take into account that positively charged water quickly hydrates various biopolymers even at room temperature, while negatively charged water is absolutely incapable of this [6, 7]. Thus, given such a radical difference in the hydration properties of waters with opposite charges, it was proposed to believe that different tissues can retain only positively charged water, thereby creating conditions favorable for the proliferation of their cells

(that is, in full accordance with McIntyre's ideas [4, 5]); naturally, it has also been suggested that negatively charged water cannot moisturize tissues and therefore cannot stimulate cell division, in particular, division of cells in cancerous tissues [6, 8, 9].

Developing all these ideas, over time it was shown that the accumulation of positively charged water in tissues contributes to thrombosis of their blood vessels and, consequently, the development of a number of diseases, including thrombosis-associated cancer [10]; at the same time, it was shown that negative electrification of tissues promotes the dissolution of blood clots and, consequently, treating.

Taking all these considerations into account, over time it became necessary to discuss the most common sources of pathogenic positively charged water, as well as the most common sources of medicinal negatively charged water. Thus, this article can be considered the result of this very discussion.

Discussion

It was decided that sources of positively charged water should be

Boiling water. It is probably quite obvious that boiling water is accompanied by the release of bubbles formed from water vapor. However, it is not so obvious that it is this release that is accompanied by positive electrification of water. Those who wish to understand more deeply the reason for this particular electrification should use Kyon's rule: when two phases come into contact, the phase with the higher permittivity acquires a positive charge, and the phase with the lower permittivity acquires a negative charge [11]. Thus, given that the dielectric constant of boiling water is 55,1 [11, 12], and the dielectric constant of water vapor is approximately 1 [13], according to the same Kyon's rule, it turns out that boiling water acquires a positive charge. This means, in particular, that food placed in boiling water becomes saturated with positively charged water, which causes it to become moist and, as a result, soften. Thus, it turns out that, in an effort to soften food with boiling water, people simultaneously saturate it with positively charged water, thereby creating the preconditions for the development of a number of diseases [8 – 10].

While all this reasoning may seem discouraging, there is a natural phenomenon that reduces the positively charged water content in both boiling water and freshly cooked food. It's called evaporation: since positive charges rise with steam [14], any evaporation of water is always accompanied by a decrease in the positively charged water content in both the boiling water and the food cooked in it. Thus, it turns out that the content of positively charged water in both boiling water and food cooked in it constantly decreases as they cool. Thus, we come to a completely obvious conclusion: partially cooked food is healthier than freshly prepared food.

Of course, all these considerations can be extended to tea and coffee, which are, of course, prepared in boiling water. Accordingly, the recommendation to consume both of these drinks after they have been partially cooled also seems appropriate, since their cooling occurs through the process of evaporation, which carries away positive charges (Figure 1).



Figure 1. This is a cup of hot coffee with steam rising above it: it is the droplets of positively charged water that form the rising steam.

Frozen food. Applying the same Kyon's rule [11] to frozen foods, it turns out that when they come into contact with boiling water, they become even more saturated with positively charged water than non-refrigerated foods, taking into account, of course, that the dielectric constant of water at 0 °C is close to 88, and the dielectric constant of ice at 0 °C is close to 90 [11, 12].

Breath. However, there are also sources that directly cause positive

electrification of the internal fluids of the human body, mainly water-containing ones. So, given the ability of atmospheric oxygen to attach electrons [11], respiration can be considered the most significant of these sources; apparently, it is worth adding here that this very ability of atmospheric oxygen allows creating such electrochemical sources of electric current as air-hydrogen cells (Figure 2).

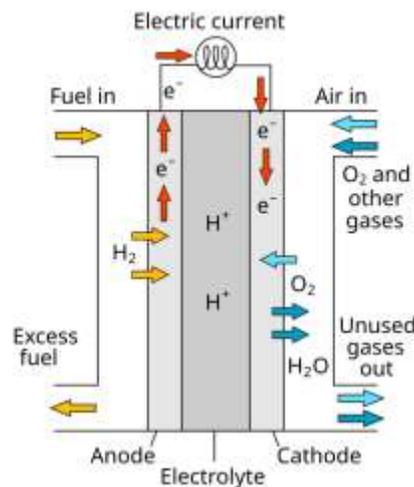


Figure 2. This is a diagram of a hydrogen-air electrochemical cell [15]. The red arrows indicate the movement of electrons from the compartment with an aqueous solution saturated with hydrogen gas to the compartment with an aqueous solution saturated with air.

So, when extrapolating the right side of this diagram (Figure 2, right) to the human body, it apparently becomes clear that frequent respiratory acts contribute to a greater extent to the positive electrification of the human internal environment than infrequent ones; naturally, when drawing a parallel between the intensities of air flows in the lungs and in a hydrogen-air electrochemical cell. Thus, taking into account the above reasons, it becomes clear why slow breathing is so beneficial for human health [16 – 18].

Light. Because the Poynting vector, which indicates the direction of the light beam, moves positive charges along it and negative charges towards it [19], the illuminated skin quickly acquires an excess positive charge. Thus, taking into account the proposed concept [8 – 10], it is becoming abundantly clear why intense sunlight is the leading cause of skin cancer [20, 21].

Thus, it can be seen that sources of positively charged water constantly surround people. However, not everything is so pessimistic, since there are also sources of negatively charged water in the human environment.



Figure 3. This is what a tightly sealed PET bottle looks like two weeks after being filled with hydrogen gas: the changes in the bottle's shape indicate that hydrogen gas is flowing freely out of it [15].

Thus, the mechanism underlying the anticancer activity of human microbiota [30 – 34] appears to be quite clear (of course, if the idea about the connection between the development of cancer and the positive electrification of the internal environment of a person [8 – 10] is correct). Taking all of the above into account, it probably becomes clear that food should be considered not only as sources of nutrients, but also as stimulants of intestinal microflora that promote hydrogen gas formation.

Hydrogen inhalation. Following the above analysis of the mechanism of anti-cancer activity of human hydrogen-producing microbiota, the mechanism of anti-cancer activity of hydrogen therapy, in particular

hydrogen inhalation [35 – 38], also seems no less clear, especially given the high penetrating power of hydrogen gas (Figure 3).

Since this seems quite appropriate in this case, it is worth noting that the fact that hydrogen atoms are the main products of the mitochondrial Krebs cycle (Figure 4) allows considering hydrogen therapy and hydrogen inhalation as treatment methods that use exclusively a natural metabolite of the human body; at the same time, it should not be forgotten that the symbiosis between humans and hydrogen-producing microbiota is also both a natural and evolutionarily determined phenomenon [22, 39].

Sweating. Considering the ability of water vapor to carry positively charged water (Figure 1), sweating can be considered a way to remove it from the body and, therefore, a way to prevent various diseases [22]; accordingly, all human activities that promote sweating can be considered beneficial to health. By analogous reasoning, it seems that antiperspirants that prevent sweating should be considered as agents that contribute to the development of various diseases [23], including cancer (which, according to McIntyre's hypothesis [4, 5], requires excess water in the cells, which is facilitated by antiperspirants).

So, this same scheme (Figure 2) allows proposing one of the most effective methods of negative electrification of

Microbiota. The ability of the intestinal microbiota, mainly *Escherichia coli*, to actively produce hydrogen gas [24 – 28], which supplies electrons to the aqueous environment (Figure 2, right), thereby neutralizing its positive charge, turns the intestine into a reservoir [29] supplying the entire body with this very medicine; apparently, the exceptionally high penetrating power of hydrogen gas (Figure 3) makes this statement quite justified.

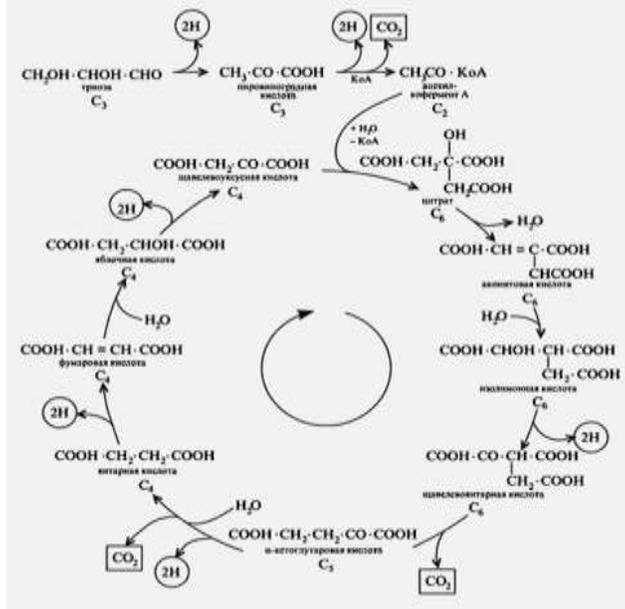


Figure 4. This is the Russian language diagram of the mitochondrial Krebs cycle that seems most suitable for this article; the suitability of this diagram is that it is free from many details that obscure the fact that the main products of mitochondria are hydrogen atoms.

The pairs of hydrogen atoms formed in the cycle are circled [15].

Sodium chloride. Even the ability of sodium chloride to retain water outside cells suggests its anti-cancer properties, in accordance with McIntyre's hypothesis [4, 5], of course. In any case, the fact that hyponatremia is often associated with cancer [40 – 43] makes the proposal to consider sodium chloride as an anticancer agent [44] quite justified (in particular, given the ability of extracellular sodium chloride to stop the division of cancer cells and promote their differentiation [45]).

Carbon dioxide. The healing effect of carbon dioxide on the skin is usually associated with its ability to dilate blood vessels, thereby improving blood circulation in them [46 – 49]. Thus, given that blood vessels in cancerous tissues are often thrombosed [10], it appears that carbonation of the blood may help treat various forms of cancer, not just skin cancer. Thus, the proposal to use different sources of carbon dioxide

in the treatment and prevention of thrombosis [50] and, consequently, cancer seems quite reasonable. While this may be sufficient for physicians, it is also useful to consider that it is precisely the ability of carbon dioxide, or more precisely carbonic acid, to promote the saturation of the body with molecular hydrogen [15, 50] that is, in all likelihood, the basis of all its healing properties.

Liquid oils. It is necessary to note the healing effect of liquid oils, both vegetable and fish, which attract positively charged water, thereby reducing its content in the human body. Since this ability of these oils is not entirely obvious, it is worth confirming it with a visually detectable phenomenon. So, if you apply a drop of oil to the surface of a weak solution of copper sulfate and wait for it to dry, then the formation of rhombic crystals can be observed around this drop (Figure 5).



Figure 5. Dark blue orthorhombic crystals formed around a drop of vegetable oil, initially applied to the surface of a drying weak aqueous solution of CuSO₄.

Then, if we take into account that the formation of rhombic crystals simply occurs in positively charged water (Figure 6, left), then it becomes clear that it is precisely this kind of water that surrounds the oil drop (Figure 5).

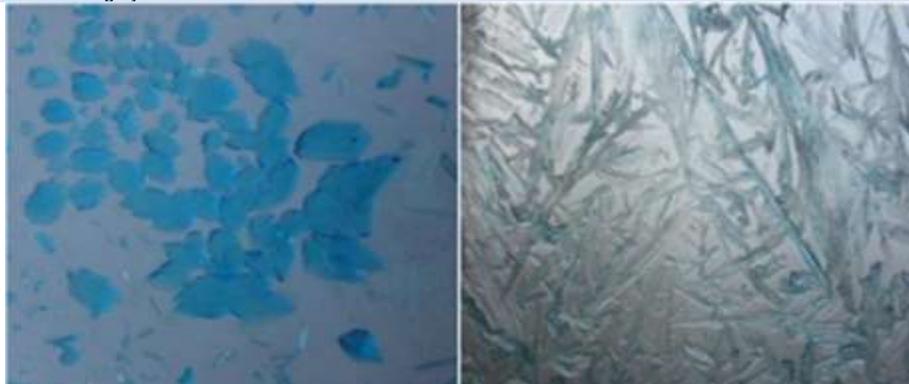


Figure 6. Left: Intensely blue rhombic crystals formed after drying a CuSO_4 solution prepared using positively charged water. Right: Pale green or colourless elongated crystals formed after drying a CuSO_4 solution prepared using negatively charged water [7].

Thus, if we take into account the ability of liquid oils to retain positively charged water, the true reason for their often-noted medicinal properties [51 – 54], including anti-cancer ones [55 – 58], becomes quite obvious.

Ionizers. In light of all of the above, the healing effect of ionizers, which saturate the inhaled air with negative air ions and, as a consequence, human blood with hydrogen atoms [15, 50, 59, 60], should seem undeniable to everyone.

Chewing gum. Taking into account all the above, the anti-cancer effect of chewing gum containing urea (carbodiimide) [61, 62], which absorbs carcinogenic hydrogen ions and hydrogen peroxide [53], thereby removing them, at least from saliva, seems quite obvious.

Conclusion

Thus, the combination of McIntyre's hypothesis [4, 5] with the fact that only positively charged water is capable of hydrating biopolymers [6 – 10] allows drawing very important conclusions regarding the common factors that contribute to the development of diseases caused by thrombosis of blood vessels, including the corresponding type of cancer, as well as the common factors that suppress such diseases. At the same time, the obvious fact that all these conclusions can be drawn based on a single concept makes them worthy of attention.

In any case, considering water as an active substance whose properties are determined by its electrical charge can provide doctors with a basis for a deeper understanding of the various states of the human body, both healthy and sick. It is hoped that such considerations will allow doctors to consciously use quite ordinary means to correct the electrification of the internal environment of the human body, thereby promoting the strengthening of human health.

Apparently, it is worth noting separately that all of the above is of particular importance for citizens of the United States and Japan, who are constantly exposed to powerful geomagnetic factors that determine the positive electrification of the environment [60].

References

1. Del Giudice E., Elia V. & Tedeschi A. (2009). The role of water in the living organisms. *Neural Network World*. 19(4), 355-360.
2. Chaplin M.F. (2001). Water: its importance to life. *Biochemistry and Molecular Biology Education*. 29(2), 54-59.
3. Dargaville B.L. & Hutmacher D.W. (2022). Water as the often neglected medium at the interface between materials and biology. *Nature Communications*. 13, 1-10.
4. McIntyre G.I. (2006). Cell hydration as the primary factor in carcinogenesis: A unifying concept. *Medical Hypotheses*. 66(3), 518-526.
5. McIntyre G.I. (2007). Increased cell hydration promotes both tumor growth and metastasis: a biochemical mechanism consistent with genetic signatures. *Medical Hypotheses*. 69(5), 1127-1130.
6. Pivovarenko Y. (2018). The electric potential of the female body liquids and the effectiveness of cloning. *Research and Reviews on Healthcare*. 1(2), 22-26.
7. Pivovarenko Y. (2018). \pm Water: demonstration of water properties, depending on its electrical potential. *World J. of Applied Physics*. 3(1), 13-18.
8. Pivovarenko Y. (2021). Electrified water as a regulator of cell proliferation. *J. of Oncology Research*. 3(1), 1-10.
9. Pivovarenko Y. (2023). Positively charged water as a tumor growth stimulator. *Biomedical Sciences*. 9(3), 64-72.
10. Yuri Pivovarenko (2024). Cancer and thrombosis can be associated because both have a common cause, which is the positive electrification of a person's internal environment. *J. Cancer Research and Cellular Therapeutics*. 8(3), 1-5.
11. Nekrasov B.V. (1974). *Basics of General Chemistry, Volume 1*. Moscow: Chemistry. In Russian.
12. Catenaccio A., Daruich Y. & Magallanes C. (2003). Temperature dependence of the permittivity of water. *Chemical Physics Letters*. 367(5 – 6), 669-671.
13. Kuhling H. (1983). *Handbook of Physics*. NY: Wiley.
14. Yuri Pivovarenko (2024). Water evaporation as an electromagnetic phenomenon. *European J. of Applied Physics*. 6(3), 19-25.
15. Pivovarenko Y. (2019). Biochemical and physiological basis for treating hydrogen gas as a medicine. *European J. of Preventive Medicine*. 7(6), 100-107.
16. Russo M.A., Santarelli D.M. & O'Rourke D. (2017). The physiological effects of slow breathing in the healthy human. *Breathe*. 13(4), 298-309.
17. Zaccaro A, Piarulli A, Laurino M, Garbellaet E. et al. (2018). How breath-control can change your life: a systematic review on psycho-physiological correlates of slow breathing. *Frontiers in Human Neuroscience*. 12, 1-16.
18. Fincham G.W., Strauss C., Montero-Marin J. & Cavanagh K. (2023). Effect of breathwork on stress and mental health: a meta-analysis of randomised-controlled trials. *Scientific Reports*. 13(1), 1-14. View at Publisher | View at Google Scholar
19. Crawford F.S. (1968). *Waves*. NY: McGraw-Hill.
20. Ananthaswamy H.N. (2001). Sunlight and skin cancer. *J. of Biomedicine and Biotechnology*. 1(2), 49-49.
21. Kliniec K., Tota M., Zalesińska A., Lyko M. et al. (2023). Skin cancer risk, sun-protection knowledge and behavior in athletes – A narrative review. *Cancers*. 15(13), 1-19.
22. Pivovarenko Y. (2024). Diseases as a legacy of the Great Oxidative Event, or how mitochondria became pathogenic and

- sweating became healing. *J. Cancer Research and Cellular Therapeutics*. 8(5), 1-7.
23. Pivovarenko Y. (2024). Shoes, underwear and antiperspirants that contribute to a number of common women's diseases, including breast cancer. *J. of Thoracic Disease and Cardiothoracic Surgery*. 5(2), 1-4.
 24. Del Giudice E., Elia V. & Tedeschi A. (2009). Intestinal gas production by the gut microbiota: A review. *J. of Functional Foods*. 100, 1-10.
 25. Maeda T., Sanchez-Torres V. & Wood T.K. (2012). Hydrogen production by recombinant *Escherichia coli* strains. *Microbial Biotechnology*. 5(2), 214-225.
 26. Trchounian K., Sargsyan H. & Trchounian A. (2014). Hydrogen production by *Escherichia coli* depends on glucose concentration and its combination with glycerol at different pHs. *International Journal of Hydrogen Energy*. 39(12), 6419-6423.
 27. Bekbayev K., Mirzoyan S., Toleugazykyzy A. et al. (2022). Growth and hydrogen production by *Escherichia coli* during utilization of sole and mixture of sugar beet, alcohol, and beer production waste. *Biomass Conversion and Biorefinery*. 14, 909-919.
 28. Campbell A., Gdanetz K., Schmidt A.W. & Schmidt T.M. (2023). H₂ generated by fermentation in the human gut microbiome influences metabolism and competitive fitness of gut butyrate producers. *Microbiome*. 11(1), 1-15.
 29. Intestinal gas section in the Encyclopedia Britannica.
 30. Viaud S., Daillère R., Boneca I. G. et al. (2014). Gut microbiome and anticancer immune response: really hot Sh*t! *Cell Death and Differentiation*. 22(2), 199-214.
 31. Gately S. (2019). Human microbiota and personalized cancer treatments: role of commensal microbes in treatment outcomes for cancer patients. *Cancer Treatment and Research*. 178, 253-264.
 32. Zhang X., Tao G., Zhao Y. et al. (2022). Molecular hydrogen inhibits colorectal cancer growth via the AKT/SCD1 signaling pathway. *BioMed Research International*. 2022, 1-11.
 33. Hou K., Wu Z.X., Chen X.Y. et al. (2022). Microbiota in health and diseases. *Signal Transduction and Targeted Therapy*. 7(1), 1-28.
 34. Zhao L.Y., Mei J.X., Yu G. et al. (2023). Role of the gut microbiota in anticancer therapy: from molecular mechanisms to clinical applications. *Signal Transduction and Targeted Therapy*. 8, 1-27.
 35. Noor M.N.Z.M., Alauddin A.S., Wong Y.H. et al. (2023). A systematic review of molecular hydrogen therapy in cancer management. *Asian Pacific Journal of Cancer Prevention*. 24(1), 37-47.
 36. Chitapanarux I., Onchan W., Chakrabandhu S. et al. (2024). Pilot feasibility and safety study of hydrogen gas inhalation in locally advanced head and neck cancer patients. *OncoTargets and Therapy*. 17, 863-870.
 37. Pascal-Moussellard V., Alcaraz J.P., Tanguy S., Salomez-Ihl C. et al. (2025). Molecular hydrogen as a potential mediator of the antitumor effect of inulin consumption. *Scientific Reports*. 15, 1-11.
 38. Li S., Liao R., Sheng X. et al. (2019). Hydrogen gas in cancer treatment. *Frontiers in Oncology*. 9, 1-9.
 39. Pivovarenko Y. (2024). Biological oxidation as a means of reproducing the conditions for the genesis of cellular life and as a means of disease prevention. *Clinical Trials and Case Studies*. 3(2), 1-6.
 40. Onitilo A.A., Kio E. & Doi S.A.R. (2007). Tumor-related hyponatremia. *Clinical Medicine & Research*. 5(4), 228-237.
 41. Castillo J.J., Vincent M. & Justice E. (2012). Diagnosis and management of hyponatremia in cancer patients. *The Oncologist*. 17, 756-765.
 42. Grohé C. (2019). Hyponatremia in oncology patients. *Frontiers of Hormone Research*. 52, 161-166.
 43. Fibbi B., Marroncini G., Naldi L. et al. (2023). Hyponatremia and cancer: from bedside to benchside. *Cancers (Basel)*. 15(4), 1-16.
 44. Pivovarenko Y. (2024). Sodium chloride as an antitumor agent. *J. Thoracic Disease and Cardiothoracic Surgery*, 5(4); 1-6. *Clinical Trials and Case Studies*. 3(2), 1-6.
 45. Stubblefield E. & Mueller G.C. (1960). Effects of sodium chloride concentration on growth, biochemical composition, and metabolism of HeLa cells. *Cancer Research*. 20 (11), 1646-1655. View at Publisher | View at Google Scholar
 46. Kroumpouzou G., Arora G., Kassir M., Galadari H. et al. Carboxytherapy in dermatology. *Clinics in Dermatology*. 40(3), 305-309.
 47. Zelenkova H. & Wollina U. (2023). Carboxytherapy in esthetic medicine – A review. *CosmoDerma*. 3(1), 1-8.
 48. Bagherani N., Smoller B.R., Tavoosidana G., Ghanadan A., Wollina U. & Lotti T. An overview of the role of carboxytherapy in dermatology. *J. of Cosmetic Dermatology*. 22(9), 2399-2407.
 49. Jarzabek-Perz S. & Wrzosek M. (2025). Carboxytherapy in the management of selected skin conditions –applications in monotherapy and combined treatments. *Applied Sciences*. 15(17), 1-19.
 50. Pivovarenko Y. (2024). CO₂ as an evolutionarily proven means of protection against adverse external factors. *Basic and Clinical Pharmacy Research*. 2(1), No. 5, 1-5.
 51. Lania B.G., Morari J., Almeida A.R., Silva M.N. et al. (2019). Topical essential fatty acid oil on wounds: Local and systemic effects. *PLoS ONE*. 14(1), 1-15.
 52. McMullen R.L. (2024). The benefits and challenges of treating skin with natural oils. *International Journal of Cosmetic Science*. 46, 553-565.
 53. Asiri Y.I. & Venkatesan K. (2025). Wound-healing potential of *Myristica fragrans* essential oil: A multi-targeted approach involving inflammation, oxidative stress, and apoptosis regulation. *Pharmaceuticals*. 18(6), 1-19.
 54. Rehab A., Krishnaraju V., Durgaramani S., Nizar S. et al. (2025). Mechanistic insights into clary sage oil's role in wound healing: targeting oxidative stress and inflammatory pathways. *Frontiers in Pharmacology*. 16, 1-14.
 55. Yang P., Cartwright C., Ding J., Felix E. et al. (2013). Anticancer activity of fish oils against human lung cancer is associated with changes in formation of PGE₂ and PGE₃ and alteration of akt phosphorylation. *Molecular Carcinogenes*. 53(7), 566-577.
 56. Markellos C., Ourailidou M.E., Gavriatopoulou M., Halvatsiotis P. et al. (2022). Olive oil intake and cancer risk: A systematic review and meta-analysis. *Plos One*. 17(1), 1-21.
 57. Abbas K., Kamil F., Tanveer Y., Alam M. et al. (2024). Omega-3 fatty acids from fish: a novel approach in cancer therapy. *Biosciences Biotechnology Research Asia*. 21(4), 1303-1317.
 58. Saad B. & Kmail A. (2025). Olive oil polyphenols in cancer: molecular mechanisms and therapeutic promise. *Immuno*. 5(3), 1-25.
 59. Pivovarenko Y. (2022). Negative electrization of air as a means of counteracting airborne viral infections. *European J. of Preventive Medicine*. 10(1), 34-39.
 60. Pivovarenko Y. (2021). The Gulf Stream and the Californian Current as factors affecting the behavior and health of Americans. *J. of Human Physiology*. 3(2), 51-56.
 61. Gandhi G.M., Anasuya S.R., Kawathekar P. et al. (1977). Urea in the management of advanced malignancies (Preliminary report). *Journal of Surgical Oncology*. 9(2), 139-146.

62. Morales M. & Garcia-Nieto V. (1996). Hypouricemia and cancer. A study of the mechanisms of renal urate wasting in two cases. *Oncology*. 53(4), 345-348.

63. Pivovarenko Y. (2023). Catalytic properties of positively charged water promoting tumor growth. *J Cancer Research and Cellular Therapeutics*. 7(5), 1-8.



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