

THE SCIENCE OF
WATER & HEALTH

A Complete Guide to Alkaline Ionized Water

Understanding Functional Water for Optimal Wellness

THE SCIENCE OF WATER & HEALTH

A Complete Guide to Alkaline Ionized Water

Copyright © Oh Shin-taek (오신탉)

Daniel Oh | <https://1thewater.com>

All rights reserved.

— COPYRIGHT NOTICE —

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means — including photocopying, recording, or other electronic or mechanical methods — without the prior written permission of the copyright owner.

Unauthorized reproduction, quotation, or distribution of any content from this publication is strictly prohibited and may be subject to civil and criminal liability under applicable copyright law.

무단 복제 및 인용을 금합니다.

For permissions and licensing inquiries, please contact the copyright owner directly.

CONTENTS

01. A Memory of Pure Water	3
02. Are Diseases Our Life Partners?	3
03. Water — Panacea or Poison?	4
04. What Kind of Water Should We Drink?	4
05. The Beginning of Alkaline Ionized Water	5
06. The Science of Alkaline Ionized Water	6
07. Water That Revives Cells	9
08. Alkaline Ionized Water & Natural Healing Power	9
09. How to Drink Alkaline Ionized Water	10
10. The Colon — Your Second Face	11
11. Why Humans Suffer from Colon Diseases	12
12. Understanding the Colon	14
13. Causes of Abnormal Intestinal Fermentation	17
14. Symptoms of Excessive Intestinal Fermentation	20
15. The Underestimated Colon	22
16. Treating Abnormal Fermentation with Alkaline Ionized Water	23
17. Definitive Relief for Gastrointestinal Diseases	26
18. Q & A — Your Questions Answered	29

01 A Memory of Pure Water

Never discovered by anyone for thousands of years, a small spring hides between the rocks. The taste of ice-cold water on a steamy hot day can never be forgotten — the heart cooling down, each cell reviving, the skin breathing.

Great rivers with abundant water gave birth to human civilizations. That water soaked the earth, proliferated life in the valley, and fed generations of humanity. Hence, humans have always praised great rivers as the "milk of life."

Where people are, there is water. And where water is, life begins.

02 Are Diseases Our Life Partners?

Our bodies are becoming collections of diseases — diseases we have come to accept as life partners. Since childhood, children catch colds ceaselessly and suffer from various skin and sinus disorders. Office workers endure a succession of gastrointestinal disorders and liver diseases driven by chronic stress.

In the history of human life, there has been no era like the past thirty years in which we consume medications daily as though they were meals. A healthy body and mind is the most precious asset that will protect our home and family from the diseases of the modern world.

03 Water — Panacea or Poison?

The World Health Organization (WHO) reports that 80% of all diseases tormenting humankind are water-related.

For thousands of years, villages of longevity have existed where good water is abundantly available. In contrast, short lives and widespread disease have characterized regions with contaminated water. Kings and commoners alike sought good water to restore their natural healing power.

However, the water we drink today is not the water that gave birth to countless lives. Tap water cannot be trusted without treatment, bottled water can become contaminated, bedrock aquifers are depleted, and conventional water purifiers have limitations.

Water can be a panacea and a poison simultaneously. Ordinary water relieves thirst but does not fully protect us from disease. The water we truly need is the kind that safeguards our health and restores the physical and mental balance that modern life disrupts.

04 What Kind of Water Should We Drink?

Evaluating Common Water Sources

Water Type	Description	Verdict
Filtered Water	Removes impurities but may also strip essential minerals, producing a result close to distilled water.	Incomplete
Bottled Water	May be clean at the source, but by the time it reaches you, storage conditions can allow bacterial growth.	Inconsistent
Spring Water	Susceptible to acid rain, pollution, and microbial contamination; quality varies widely.	Variable
Boiled Water	Sterilizes pathogens but destroys beneficial dissolved gases and minerals — "dead water."	Limited
Alkaline Ionized Water	Filtered, mineral-rich, hexagonal-clustered, with reduced ORP and dissolved molecular hydrogen.	Recommended

Authoritative water experts call the ideal healthy water "Alkaline Ionized Water" — clean, mineral-rich, and scientifically proven to support optimal cellular function.

05 The Beginning of Alkaline Ionized Water

A Scientific Discovery — 1937

In 1937, Japanese scholar Suga accidentally discovered alkaline ionized water during plant growth research. Observing its remarkable effect on plant vitality, forward-thinking scientists turned the question to human health:

"What if people drink this water?"

50 Years of Clinical Research

Medical scientists around the world began investigating alkaline ionized water. By 1950, the chairman of Japan's National Center for Scientific Research, Yamada, documented a patient with severe rashes recovering fully within three months using only alkaline ionized water. Further discoveries revealed efficacy against diabetes, atopic dermatitis, gastrointestinal disorders, and more.

Official Government Recognition

In 1965, Japan's Ministry of Health, Labor and Welfare formally approved water ionizers as recognized medical devices — a distinction based on decades of rigorous clinical evidence.

Japan has since recorded the world's longest average life expectancy, with millions of citizens

using alkaline ionized water as a cornerstone of their daily health practice.

How Alkaline Ionized Water is Produced

Step	Process
1 Filtration	Source water passes through precision filters, removing heavy metals, chlorine, bacteria, and other contaminants.
2 Electrolysis	Purified water enters the electrolysis chamber (water-cell), where an electrical current separates it into alkaline and acidic streams.

3 Output Alkaline water — enriched with ionized minerals and dissolved molecular hydrogen — is collected at the negative electrode. Acidic water, beneficial for skin, exits separately.

06 The Science of Alkaline Ionized Water

1. The Smallest Water on Earth — Hexagonal Clusters

Ordinary water is composed of large, irregular clusters of 12–13 water molecules, which the body must work to absorb. Alkaline ionized water, by contrast, forms compact hexagonal ring structures of just 6 molecules each — the smallest naturally occurring water cluster shape.

This microscopic structure enables rapid absorption directly into body cells, accelerating the excretion of metabolic waste and dramatically improving hydration efficiency. Accumulation of metabolic waste is a root cause of many diseases — hexagonal water addresses this at the cellular level.

2. Activated Mineral Content

A fundamental principle of healthy water: it should be clean and mineral-rich. Alkaline ionized water not only preserves beneficial minerals but concentrates and ionizes them, making mineral absorption significantly more efficient than ordinary water.

The minerals in alkaline ionized water are ionized and activated, enabling far superior cellular absorption compared to minerals in ordinary water.

3. Meltwater Science — Hexagonal Water from Longevity Villages

Research into longevity villages worldwide has revealed a consistent finding: the residents drink hexagonal water, often drawn from slowly melting glacial sources stored at extremely low temperatures over thousands of years.

Scientists including Dr. Moosik Jeon of KAIST and Dr. Gyuhak Lee of the Mercy Medical Center Cancer Department have reported that hexagonal water protects key cellular components, and may contribute to the prevention and treatment of a range of chronic conditions, including diabetes.

Alkaline ionized water replicates the properties of glacial meltwater from longevity villages —

bringing the benefits of hexagonal water directly to your home.

4. Reduced Water — The Only Antioxidant Water on Earth

Most water, including pure filtered water, is mildly oxidizing — meaning it gradually introduces oxidative stress into the body. Over time, this accelerates aging and contributes to disease.

Alkaline ionized water is unique: it is the only water with a negative Oxidation-Reduction Potential (ORP), making it a genuine reducing agent — an antioxidant in liquid form.

Key Properties of Reduced Alkaline Ionized Water

- ✦ Promotes growth of beneficial gut flora, establishing a foundation for health and longevity.
- ✦ Neutralizes oxygen free radicals — the principal agents of aging and chronic disease.
- ✦ Prevents preservatives and environmental pollutants from damaging healthy cells.
- ✦ Does not cause oxidation — it is the only water that will not make metals rust.

5. ORP Comparison — Water Types

Water Type	ORP Value (mV)	Characteristic
Tap Water	+700 mV	Strongly oxidizing — damages gut flora and cells
Bottled Water	+200 mV	Moderately oxidizing
Longevity Village Water	Approx. 0 mV	Near-neutral
Alkaline Ionized Water	-200 to -250 mV	Antioxidant — optimal for gut health

07 Water That Revives Cells

Alkaline ionized water protects and activates cells — the fundamental units of life. Due to its ability to energize the entire cellular ecosystem, an increasing number of medical facilities in Japan now treat patients using only diet and alkaline ionized water, prescribing no pharmaceutical drugs whatsoever.

If fish in contaminated water cannot be healthy, neither can a body whose cells are bathed in poor-quality water. Drinking alkaline ionized water regularly energizes all 100 trillion cells in the body — rebuilding the physiological foundation for a body capable of resisting disease and sustaining vitality.

08 Alkaline Ionized Water & Natural Healing Power

For millions of years, the human body healed itself without pharmaceutical intervention. Today, our immune systems have been weakened by environmental toxins, chronic stress, poor diet, and suboptimal hydration. Cancer, diabetes, autoimmune diseases — conditions once rare — have become epidemic.

The fundamental solution is not suppressing symptoms but restoring the body's own defense capacity — natural healing power. Alkaline ionized water transforms the body's internal environment, filling each of 100 trillion cells with the vitality needed to resist and overcome disease.

09 How to Drink Alkaline Ionized Water

Daily Benefits

- ◆ Instant, deep hydration — hexagonal clusters absorb into cells far faster than ordinary water.
- ◆ Supports calcium intake — beneficial for growing children and adults managing osteoporosis.
- ◆ Accelerates detoxification — rapidly flushes metabolic waste caused by alcohol, smoking, and air pollution.
- ◆ Safer cooking water — preserve the nutritional quality of every meal your family eats.

- ◆ Ideal for infant formula — supports respiratory system stabilization and intestinal health in newborns.
- ◆ Fatigue recovery — relieves physical and mental exhaustion from exercise and overwork.
- ◆ Superior for elderly digestion — rapid absorption is ideal for those with compromised digestive systems.

For Family Health

- ◆ Intestinal health is the cornerstone of longevity — alkaline ionized water outperforms yogurt as a daily gut health supplement.
- ◆ Supports management of diabetes and atopic dermatitis, conditions resistant to conventional treatment.
- ◆ Promotes healthy weight management through rapid absorption and efficient cellular metabolism.
- ◆ Relieves stress on the liver and intestines chronically burdened by synthetic food additives and medications.

10 The Colon — Your Second Face

The Face Reflects the Health of the Whole Body

In traditional Korean medicine, examination of facial color and texture is a primary diagnostic tool — a reflection of overall systemic health. Among the most significant internal signals mirrored in the face are abnormal colon conditions: fecal stasis, constipation, and pathological fermentation.

True beauty comes from a clean colon. True health begins with a healthy colon.

Toxic Byproducts of Intestinal Fermentation

Modern diets produce intestinal conditions that generate a range of toxic byproducts. Understanding these compounds reveals the systemic danger of neglecting colon health:

Compound	Source	Health Impact
Hydrogen Sulfide	Protein decomposition	Headache, unconsciousness; lethal in large amounts
Histamine	Fermentation byproduct	Eczema, dermatitis, rashes, asthma
Ammonia	Protein breakdown	Fecal odor; causes hepatic coma in liver disease patients
Nitrosamine	Meat amino acids + food additives	Recognized carcinogen
Phenol	Bacterial metabolism	Strong oxidant; cell-damaging, potentially carcinogenic
Indole	Protein decomposition	Carcinogenic in animal studies

11 Why Humans Suffer from Colon Diseases

The Anatomy of the Problem

The human digestive tract from esophagus to anus measures approximately 9 meters. Food is digested in the stomach and small intestines, then passes through the colon over 30–60 hours, during which water and trace elements are reabsorbed.

When stool remains in the colon too long and hardens, proteins and chemical additives begin decomposing, producing numerous toxins that enter the bloodstream and affect every organ in the body.

Are Humans Herbivores or Carnivores?

Carnivores have intestines approximately 3 times the length of their body — short enough to expel meat quickly before decomposition begins. Humans have intestines 12 times their body length — the gut of an herbivore, now processing the diet of an omnivore.

Population	Digestion Time	Stool Mass
British (urban, meat-heavy diet)	15–60 hours	110 g
African (urban)	40 hours	200 g
African (rural, fiber-rich diet)	30 hours	300 g

A smaller stool mass indicates stool remaining in the colon longer, losing water, and allowing greater toxin production and absorption — a direct marker of colon dysfunction.

12 Understanding the Colon

The Colon's True Role

Modern medicine tends to view the colon as a waste disposal organ. In reality, it is a sophisticated living ecosystem: it provides habitat for trillions of microorganisms, secretes protective mucus, and actively absorbs essential minerals and vitamins.

The Gut Flora — A Living Community

Within 24 hours of birth, over 100 trillion microorganisms of more than 100 different species colonize the newborn colon, establishing the gut flora that will influence health for a lifetime.

Category	Examples	Role
Beneficial Bacteria	Lactobacilli, Bifidobacteria	Produce vitamins B, K & C; synthesize essential amino acids; inhibit pathogens
Harmful Bacteria	C. perfringens, Salmonella spp.	Generate toxic fermentation byproducts from protein decomposition
Opportunistic Bacteria	E. coli, S. aureus	Harmless normally; pathogenic when host immunity is compromised

The Role of Bifidobacteria

Bifidobacteria are among the most studied and beneficial microorganisms in the human gut. Research has documented the following critical functions:

- ◆ Prevention of infection from pathogenic organisms.
- ◆ Inhibition of putrefactive intestinal decomposition.
- ◆ Synthesis of essential vitamins: B1, B2, B6, B12, K, and nicotinic acid.
- ◆ Stimulation of intestinal motility, preventing constipation.
- ◆ Prevention and treatment of chronic diarrhea.
- ◆ Enhancement of the host immune system.
- ◆ Enzymatic breakdown of potential carcinogens.

The Double Organ Theory

At the International Symposium on Intestinal Flora in Tokyo, Dr. Hayashi of Kyowa Hospital's advisory board presented the "Double Organ Theory" — the proposition that the gut flora collectively functions as a secondary organ, capable of substituting the physiological roles of the liver, spleen, pancreas, kidneys, and other vital organs.

Scientific support includes: earthworms (lacking conventional organs) that sustain complete metabolism through gut flora alone; and humans surviving removal of 80% of the intestines because gut flora compensates functionally.

What Happens When Gut Flora Balance is Disrupted?

The feces of a breastfed newborn is 99% comprised of bifidobacteria. In the average senior citizen, 30% have no detectable bifidobacteria in their intestines at all — a profound deterioration with wide-reaching health consequences.

13 Causes of Abnormal Intestinal Fermentation

The Oxidative Threat to Gut Flora

The colon environment must be consistently reductive (hydrogen-rich) to sustain a healthy balance of beneficial anaerobic bacteria. The optimal Oxidation-Reduction Potential (ORP) for the colon is -200 to -250 mV. Most modern lifestyles systematically drive the colon environment in the wrong direction.

Primary Causes of Colon Oxidation & Gut Flora Imbalance

1. Excessive meat consumption — Harmful bacteria thrive on the amino acids from undigested proteins.
2. Antibiotic and pharmaceutical overuse — Indiscriminately destroy beneficial bacteria.
3. Chronic stress — Disrupts autonomic nervous function, weakening the immune shield for beneficial flora.
4. Processed foods & food additives — Produce acidic waste that destabilizes intestinal bacterial balance.
5. Poor-quality drinking water — Oxidizing water (high ORP) creates a hostile environment for anaerobic gut bacteria.

14 Symptoms of Excessive Intestinal Fermentation

Physical Warning Signs

Symptom	What It Indicates
Strongly malodorous stool	Dominance of harmful, protein-decomposing bacteria — direct indicator of pathological fermentation
Sinking stool	High-fat, water-depleted stool indicates prolonged transit time and excessive fermentation
Foul-smelling flatulence	Toxic gas byproducts (H_2S , ammonia, indole) from bacterial protein metabolism
Irregular bowel movements	Disrupted intestinal rhythms causing constipation, diarrhea, or incomplete evacuation

Abdominal bloating /
halitosis

Gas accumulation and systemic toxin distribution from
fermentation activity

Systemic Disease Consequences

Toxins produced in the colon are absorbed through the intestinal wall, transported to the liver and throughout the body via portal circulation, and progressively damage every organ system:

- ◆ Colorectal cancer — Nitrosamine enters the bloodstream and initiates malignant transformation.
- ◆ Cerebrovascular stroke — Intestinal toxins dilate blood vessels; severe straining during constipation raises blood pressure 20–30 mmHg.
- ◆ Thrombosis — Compressed pelvic blood vessels from impacted stool slow circulation and promote blood clot formation.
- ◆ Liver disease — Continuous hepatic toxin load leads to progressive liver failure and hepatocirrhosis.
- ◆ Gastric disease — Retained stool prevents normal gastric emptying, causing mucosal irritation, gastritis, and ulcers.
- ◆ Skin disease — Intestinal histamines absorbed into the skin cause atopic dermatitis, boils, and rashes.
- ◆ Autoimmune disease — Gut-derived toxins trigger misdirected immune responses, causing rheumatoid arthritis and allergies.

15 The Underestimated Colon — The Lost Child of Modern Medicine

Modern medicine does not classify abnormal intestinal fermentation as a disease. Standard practice focuses on treating the complications that arise from it — cancers, ulcers, liver failure — rather than addressing the root cause.

Consider: many gastroenterologists consider bowel movements every several days as "normal" provided no pain exists. During those intervening days, substantial quantities of fermentation toxins are being absorbed continuously into the bloodstream.

Why Yogurt is Insufficient

Lactobacilli require slightly acidic to neutral pH to survive. Gastric juice has a pH of 1.5–2.5 — nearly all supplemented lactobacilli are destroyed in the stomach before ever reaching the colon.

Additionally, gut flora is highly individualized. Studies show that beneficial bacteria transferred from one individual to another are typically excreted within 2–3 days — they cannot establish permanent colonies. Yogurt provides some nutritional value but cannot fundamentally restore gut flora balance.

16 Treating Abnormal Fermentation with Alkaline Ionized Water

The Longevity Village Benchmark

Residents of documented longevity villages worldwide share a consistent fecal profile: nearly odorless, vivid yellow, and buoyant — classic indicators of a balanced, healthy gut flora dominated by beneficial bacteria. Their shared secret, across cultures and geographies, is the quality of their drinking water.

Water Type	Water Cluster Activity (Hz)
Tap Water	120 Hz — near 'Eraestone' stagnant state
Bottled Water	110 Hz
Longevity Village Water	75 Hz

Alkaline Ionized Water

54 Hz — most biologically active

Note: Lower Hz values indicate higher water cluster activity and biological availability. Water above 120 Hz approaches the 'Eraestone' state — low activity, prone to bacterial harboring.

The Science of Dissolved Hydrogen

Alkaline ionized water is uniquely characterized by a high content of dissolved molecular hydrogen (H₂), generated during electrolysis at the negative electrode.

Why Dissolved Hydrogen Matters for the Colon

- ◆ Hydrogen is the universal reducing agent — the opposite of oxygen's oxidizing effect.
- ◆ Protects beneficial anaerobic bacteria from the damaging effect of dissolved oxygen.
- ◆ Maintains the reductive internal colon environment optimal for beneficial flora (ORP -200 to -250 mV).
- ◆ Shields gut flora from food preservatives, additives, and other oxidizing substances.
- ◆ Restores the colon environment to a state resembling that of a healthy newborn.

Hydrogen constitutes approximately 63% of the human body — it is not foreign, but foundational.

Additional Mechanisms Supporting Gut Health

- ◆ Chlorine-free and THM-free — Alkaline ionized water is free of trihalomethane and residual chlorine, both known gut flora disruptors.
- ◆ Stress reduction via calcium and magnesium — These natural sedatives in ionized form calm the nervous system, reducing stress-related gut flora damage. (Children consuming excessive processed foods often exhibit aggression associated with calcium deficiency.)
- ◆ Promotion of protective mucus secretion — Alkaline ionized water stimulates goblet cell mucus production, maintaining the protective intestinal lining and preventing toxin absorption through the colon wall.
- ◆ Anti-aging effect — By maintaining a clean colon and preventing systemic toxin absorption, alkaline ionized water measurably slows skin aging and supports cognitive function.

17 Definitive Relief for Gastrointestinal Diseases

Five Scientifically Grounded Mechanisms

1. Neutralization of Acidic Body Fluids

Preservatives, additives, air pollutants, and chronic stress all generate acidic waste that disrupts autonomic nervous function and impairs immune regulation. Alkaline ionized water's active hexagonal clusters efficiently remove acidic waste — stabilizing blood pH, calming the autonomic nervous system, and allowing the immune system to resume normal, non-inflammatory function.

2. Vascular Normalization for Mucosal Recovery

Acidification constricts the blood vessels supplying the gastrointestinal mucosa, slowing the delivery of nutrients needed for tissue repair. By promoting rapid excretion of acidic waste, alkaline ionized water relaxes these vessels and restores nutrient flow — enabling significantly faster mucosal regeneration.

3. Hexagonal Water Protects Cellular DNA

Each protein molecule is surrounded by approximately 70,000 protective water molecules. Hexagonal water clusters — present in elevated concentrations in alkaline ionized water — form a geometric shield analogous to a honeycomb structure, protecting the proteins, enzymes, and DNA within mucosal cells from toxin and viral damage. Regular consumption is associated with reduced risk of gastritis, ulcers, and gastric cancer.

4. Free Radical Neutralization

Free radicals are produced during cellular metabolism at a baseline rate of approximately 1% of CO₂ output — rising to 20% under extreme stress. These reactive oxygen species damage the gastric mucosa when their concentration exceeds the body's antioxidant capacity.

Condition	Biological Effect
Free radicals (oxidizing)	Remove electrons from cells → damages skin, blood vessels, gastric lining, pancreas, DNA
Alkaline ionized water (reducing)	Donates electrons to free radicals → neutralizes them before cellular damage occurs

5. Calcium Hydroxide — Natural Mucosal Protection

Alkaline ionized water contains trace amounts of calcium hydroxide [Ca(OH)₂] — a natural antacid that coats and protects damaged gastric mucosa, relieving pain and preventing ulcer progression to perforation.

Unlike conventional antacids (aluminum, magnesium, sodium) that cause side effects including rebound acid secretion, constipation, and diarrhea — Ca(OH)₂ in alkaline ionized water has no documented adverse side effects. It is additionally absorbed as ionized calcium, providing systemic cellular benefits.

Officially Recognized Clinical Applications

The Japanese Ministry of Health has formally approved alkaline ionized water for the following indications:

- ◆ Chronic diarrhea
- ◆ Chronic constipation
- ◆ Abnormal intestinal fermentation
- ◆ Indigestion
- ◆ Excessive gastric acid secretion

18 Q & A — Your Questions Answered

Q How does preventing abnormal fermentation and restoring gut flora improve overall health?

A Restoring gut flora balance reverses the root cause of a broad spectrum of disease — not merely alleviating symptoms. Conditions directly improved include: constipation (restored bowel rhythm), chronic diarrhea (reduced mucosal irritation from harmful bacterial toxins), dental cavities (restoration of enterococcus hassium enzyme production by healthy flora), diabetes (gut flora synthesis of agmatine, an insulin-like amino acid), and elevated cholesterol (restored bacterial cholesterol metabolism preventing atherosclerosis and cardiac events). The most important outcome is not the treatment of individual diseases, but the restoration of whole-body physiological resilience.

Q I eat yogurt regularly for gut health. Is that sufficient?

A Lactobacilli in yogurt require a near-neutral pH to survive. Gastric juice has a pH of 1.5–2.5 — nearly all ingested lactobacilli are destroyed before reaching the colon. Furthermore, human gut flora is highly individualized; even viable bacteria introduced from another source are typically excreted within 2–3 days without establishing colonies. Yogurt provides nutritional value but cannot fundamentally restore gut flora balance. Alkaline ionized water addresses the underlying colon environment — restoring the reductive conditions in which beneficial native flora can thrive.

Q How significantly does stress affect gut flora?

A The impact is substantial and well-documented. NASA research published in 1976 (Holtman et al.) examining three astronauts returning from space found severely disrupted gut flora attributable to extreme environmental stress. Chronic stress suppresses the autonomic nervous system's regulation of intestinal motility, creates acidic body fluid conditions hostile to beneficial bacteria, and directly reduces immune surveillance of the gut. Alkaline ionized water — rich in ionized calcium and magnesium — acts as a physiological buffer against stress-induced gut flora damage.

Q I have heard alkaline ionized water contains little dissolved oxygen but high hexagonal water content. Others say hexagonal water is oxygen-rich. Which is correct?

A This is a common misunderstanding. Hexagonal water is not "oxygen-rich water" — it is water with a high dissolving potential, due to the active and delicate molecular structure of its clusters. Alkaline ionized water does indeed contain elevated hexagonal water ratios, but during production, contact with atmospheric oxygen is minimized. The electrolytic process generates

dissolved molecular hydrogen (H₂) — not oxygen — at the negative electrode. The result is water that is both hexagonal and hydrogen-rich, with a negative ORP. This combination makes it uniquely beneficial for the gut flora environment.

Q Won't drinking highly alkaline water neutralize my stomach acid and impair digestion?

A This concern is mathematically unfounded. At pH 10 (the strongest ionization level), neutralizing 1 liter of gastric juice (pH 2) requires approximately 100 liters of alkaline ionized water. Average daily gastric juice production is 3 liters — meaning you would need to drink 300 liters daily to fully neutralize it. In practical use (1–2 liters per day), only approximately 1/60th of daily gastric acid output is marginally affected. Furthermore, alkaline ionized water contains sodium ions that actually promote gastric juice secretion. It does not inhibit digestion.

Q Is stomach cancer preventable through lifestyle and water quality?

A Yes — and the evidence is compelling. Cancer progresses from a single mutated cell to 1 billion cells (approximately 1 kg — the threshold of clinical detection) over approximately 9 years. During this "micro-cancer" phase, a healthy immune system can readily neutralize abnormal cells. Dr. M. Nathiel of the Karolinska Institute documented the disappearance of early-stage cancer cells in patients who eliminated carcinogenic lifestyle factors — including smoking and poor-quality water — without pharmaceutical intervention. The implication is clear: maintaining cellular health through clean, antioxidant water is a legitimate primary prevention strategy.

"The colon is the mirror reflecting the health of the whole body."

"A clean colon builds a healthy body."
