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Review Article

MasterPeace® Zeolite Z® Study Found to be Safe and Effective in Removing Aluminium, a Toxic Metal in the Human Body Fluids and Cells

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Abstract

Clinoptilolite zeolite has been widely used in environmental remediation and animal feed supplementation, thanks to its unique crystalline structure and ion-exchange properties that enable it to bind and eliminate toxins effectively [1]. In the last 25 years, its application has expanded to include human uses as a detoxifying agent [2].

The nano-, pico-sized colloidal [3] formulation known as MasterPeace® Zeolite Z®, developed by Human Consciousness Support™ Company, is a patent-pending combination of micrometre, nanometre, and picometer sized clinoptilolite zeolite with a structured isotonic sea mineral solution [4]. This solution — currently formulated with inland sea minerals and referred to as SOLergy® — was investigated [5] for its efficacy in reducing aluminium levels in human body fluids and cells. For the purposes of this paper, all references to the intervention product MasterPeace® Zeolite Z® are made using the name Zeolite Z®, which remains unchanged. However, it should be noted that the 35- and 90-day test results reported here are from an earlier pilot study in which the same formulation (Zeolite Z®) incorporated marine sea plasma rather than the now-used inland sea minerals (SOLergy®). Baseline results were derived from a subsequent study prior to the introduction of the upgraded SOLergy® formula, allowing for a consolidated comparison across the two studies.

This analysis integrates data from two related studies. In the larger 24-participant study, baseline aluminium levels were recorded via iEC testing prior to the closure of the testing laboratory in 2024, which prevented follow-up sampling at the 35- and 90-day marks.

However, a previous pilot study using the same product included 35-day and 90-day results for aluminium [6], although aluminium was not among the original baseline markers. In that pilot, aluminium was added as an additional marker at day 35 alongside existing compounds such as heavy metals [7], forever chemicals [8], microplastics [9], micro and nano graphene and glyphosate [10,37,38] and other toxic compounds from the body fluids and cells and then tested again at day 90.

By combining the average baseline results of aluminium from the 24-person study with the 35- and 90-day aluminium levels from the pilot, a clear trend emerges showing a progressive reduction in aluminium over time. These findings are consistent with previously observed detoxification patterns for other toxic compounds and demonstrate that Zeolite Z® is effective in mobilising and reducing aluminium levels in the human system over a 90-day period. The objective was to determine the safety and efficiency of Zeolite Z® in detoxification of aluminium.

The study utilised an Intracellular Electrical Capacity (iEC) test to assess blood samples, with baseline measurements taken prior to the beginning of the protocol and follow-up testing conducted at 35 days and 90 days. The test subjects took the Zeolite Z® natural product daily at a specified dosage of 5 drops sublingually, twice a day. The iEC test [12,17,19] focused on detecting aluminium and other highly toxic substances suspected to be present in the body but not previously measured. This study objective was to determine baseline aluminium levels and assess the effectiveness of Zeolite Z® in chelating and facilitating the removal of aluminium and related toxic compounds from the system. Evidence from prior human trials has already shown that surface-enhanced clinoptilolite can increase the urinary excretion of toxic metals without disturbing essential mineral balance, supporting its role as a safe in-vivo chelating agent [13]. The sea minerals in Zeolite Z® are known for their detoxification and remineralisation properties [1], enhancing the product's overall effectiveness. This ingredient also supports the removal of toxins while replenishing essential minerals in the body [4]. The study aimed to test the combined effects of both nanometre and picometer sized clinoptilolite zeolite and sea minerals in promoting overall detoxification and health. The findings from these tests provide insights into the comprehensive detoxification capabilities of Zeolite Z®, measuring its impact on reducing aluminium and the toxic burden from extracellular and intracellular fluids [13,16].

Keywords: Aluminium; Colloid; Clinoptilolite; MasterPeace; iEC Testing; Extracellular; Intracellular; pH; Oxidative; Redox; Reduction; Chelation; Nanometre; Picometer

Introduction

Background

The Human Consciousness Support Company developed Zeolite Z® within the past two years as an all-natural detoxification product aimed at removing toxic substances from the human body. Zeolite Z® has been formulated with contributions from various scientific experts, optimising a nano/pico-sized clinoptilolite zeolite combined with inland sea minerals SOLergy®. This unique formulation operates at a pH of 8.3 and an oxidative reduction potential (ORP) of -90 mV, conditions believed to enhance detoxification efficacy.

According to the company's literature [5], Zeolite Z® is a synergistic blend of natural compounds, designed as a nutraceutical for the targeted removal of a broad spectrum of micro/nano and pico scale toxins — including aluminium, pesticides, plastics, forever chemicals and other persistent environmental pollutants.

Rationale

This study was designed to address a critical gap in current understanding of how the human body retains and eliminates toxic compounds — with a particular focus on aluminium [24], one of the most abundant and highly reactive metals in the Earth's crust, widely used across industrial applications yet increasingly recognised for its controversial role as a bioaccumulative neurotoxin with direct links from soil and water exposure to human health concerns [16,17]. Although the broader research involved two interconnected studies examining a range of toxicants, the data presented here specifically evaluates aluminium levels over time.

In today's environment, individuals are continually exposed to a wide array of toxic substances, many of which are cytotoxic, genotoxic, and bioaccumulative in human tissue, body fluids and cells [18]. Despite the growing concern, access to reliable testing for aluminium and toxic compounds remains limited in many parts of the world, hindering public awareness and early intervention.

Aluminium is a biologically reactive metal that accumulates in tissues such as the brain, liver, kidneys, and bones, where it disrupts normal cellular and metabolic functions. It interferes with mitochondrial energy production, promotes oxidative stress, and displaces essential minerals like magnesium, calcium, and iron, leading to enzyme inhibition and inflammation [19-21]. Aluminium can also bind to DNA and proteins, altering their structure and impairing cellular communication [22]. Systemically, its accumulation has been linked to neurological disorders including Alzheimer's disease, immune dysfunction, bone demineralisation,

and impaired detoxification. By crossing the blood–brain barrier and promoting neuroinflammation, aluminium acts as a persistent pro-oxidant and neurotoxin that compromises both cellular integrity and overall physiological balance [23].

This study aims to test for the presence of aluminium in human blood, establishing a baseline to assess its prevalence and potential impact on health. In doing so, the study also evaluates the effectiveness of Zeolite Z® in reducing aluminium levels, alongside other toxic compounds. By monitoring changes from baseline (sourced from a 24-person cohort) through day 35 and day 90, this research provides valuable insight into whether Zeolite Z® can offer a reliable, natural method of detoxification.

Ultimately, this investigation may offer a viable and accessible solution for individuals seeking to lower their toxic burden - particularly aluminium - and improve overall health outcomes through natural, non-pharmaceutical interventions.

Objectives

The primary objective of the study was to assess the toxic burden of aluminium within the human body fluids and cells using blood analysis [12]. Utilising our two studies we used the average baseline value from the 24-person cohort study - where aluminium levels were measured using the iEC test - as the reference point. We then utilised the data points of aluminium at the 35-day and 90-day markers from the pilot study. This allowed us to track aluminium levels over time, comparing baseline (from the larger cohort), the 35-day marker (when aluminium was first introduced into the pilot testing protocol), and the 90-day endpoint. This progression was used to evaluate the effectiveness of Zeolite Z® in reducing aluminium load in the body over a 90-day period.

The study was also able to evaluate additional toxic compounds and their reduction over a 90-day period that included graphene oxide (2D Nano) [24], polyethylene (PE) [25], polypropylene (PP) [26], perfluorooctane sulfonic acid (PFOS) [27-30], and perfluorooctanoic acid (PFOA) [27-30], aluminium [31], glyphosate [32], iron [33], lindane [34], and phosgene [6,35].

Historical context: The evolution of herbicidal and pesticidal toxicity

Awareness of aluminium toxicity has evolved over more than a century. In the early 1900s, aluminium was considered an inert and harmless metal, widely adopted in cookware, food packaging, and medicine.

By the 1920s and 1930s, scientists began observing neurotoxic effects in animals exposed to high aluminium levels, though these findings were largely dismissed at the time. The issue resurfaced in the 1960s and 1970s when dialysis patients developed severe neurological symptoms, later termed dialysis encephalopathy, due to aluminium-contaminated dialysis fluid. This discovery marked the first clear recognition that aluminium could accumulate in the human brain and cause toxicity. In subsequent decades, research expanded to explore its role in neurodegenerative diseases such as Alzheimer's, as well as its impact on bone and kidney health. By the 1990s and 2000s, increasing environmental and dietary exposure from processed foods, vaccines, cosmetics, and drinking water heightened public concern.

Extensive research has demonstrated that aluminium bioaccumulation contributes to a spectrum of chronic pathophysiological conditions. Within the central nervous system, aluminium disrupts mitochondrial oxidative phosphorylation, impairs calcium-dependent neurotransmission, and enhances lipid peroxidation, mechanisms strongly correlated with the pathogenesis of neurodegenerative diseases such as Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis (ALS). In the immune system, aluminium acts as a potent adjuvant, inducing chronic immune activation and contributing to the development of autoimmune and inflammatory disorders. Its interference with calcium and phosphate metabolism in the skeletal system leads to reduced bone mineral density and osteomalacia, while accumulation in the hepatic and renal tissues compromises detoxification and xenobiotic clearance pathways [34]. The systemic persistence of aluminium is attributed to its high affinity for biological ligands and its ability to traverse both the blood–brain and placental barriers, enabling intergenerational transfer and long-term retention within soft and mineralised tissues.

In this study, blood samples were processed through IGL Laboratories using the Intracellular Electrical Capacity (iEC) test to evaluate the role of Zeolite Z® in enhancing cellular function and promoting the elimination of persistent toxicants.

Given that cellular electrical integrity governs essential biological functions including nutrient uptake, waste clearance, and intercellular signalling, interventions that restore intracellular capacity are vital to counteract the cumulative burden of environmental toxin exposure.

Methodology

Study Design: This research employed a pre-test, post-test design to evaluate the efficacy of Zeolite Z® in removing aluminium and toxic micro, nano, and pico-scale compounds from human blood over a 90-day period.

The study incorporates two data sources:

- **The Pilot Study (2023):** A 90-day study involving three participants with blood sampling at baseline, day 35, and day 90.
- **The 24-Cohort Study (2024):** A broader baseline evaluation conducted on 24 individuals, used specifically to establish an average aluminium value at baseline, as aluminium was not included in the baseline panel of the pilot study.

This combined dataset allows for a focused evaluation of aluminium reduction over time, tracking it from a standardized baseline (24-cohort) to 35-day (first aluminium test in the pilot), to 90-day (post-intervention in the pilot). This structure forms a clear timeline to assess the effectiveness of Zeolite Z® in reducing aluminium burden.

- **Setting:** The pilot study and the 24 Cohort Study were conducted in a real-world home environment. Participants self-administered the product daily. Blood samples were collected by a qualified phlebotomist at three intervals: day 0 (baseline), day 35, and day 90.
- **Participants:** The pilot group consisted of three individuals of European descent: two females (ages 57 and 60) and one male (age 57). The group included both COVID-19 vaccinated and non-vaccinated participants [37]. The 24-person cohort included twenty-four individuals also of European descent, spanning six distinct age categories: 25–34, 35–44, 45–54, 55–64, 65– 74, 75–84. As with the pilot group, the participants represented both COVID-19 vaccinated and non-vaccinated participants.
- **Intervention:** The intervention tested was Zeolite Z®, developed by the Human Consciousness Support™ Company [5]. Participants took five drops sublingually, twice daily for 90 days.
- **Laboratory Test:** Intracellular Electrical Capacity (iEC) Test - Cellular Toxin Examination: The accumulation of toxic compounds in human blood due to environmental exposure or impaired detoxification can lead to cellular dysfunction, including mitochondrial impairment and DNA disruption. These substances can interfere with vital processes such as the respiratory chain in the mitochondria or form DNA adducts, potentially contributing to systemic disease [38].

This study utilised the Intracellular Electrical Capacity (iEC) test to quantify aluminium and selected toxins within lymphocytes. The iEC test measures the intracellular toxin load and helps detect early exposure to harmful compounds [12]. Through this method, we were able to track changes in toxic burden following a consistent detoxification protocol using Zeolite Z®.

- **Toxic Compound Testing:** The pilot study [6] baseline (day 0) included five toxic compounds: graphene oxide (2D Nano) [24], polyethylene (PE) [25], polypropylene (PP) [26], PFOS [27-30], and PFOA [27-30]. At day 35, five additional compounds were introduced for testing, including: aluminium [31], glyphosate [32], iron [33], lindane [34], and phosgene [35]. As aluminium was not part of the pilot baseline initial panel, the average baseline aluminium value from the 24-person cohort study — measured using the iEC test — was used to establish a reliable starting point. From there, aluminium levels from the day 35 and day 90 of the pilot study were then used to track changes, creating a three-point framework: baseline (24-cohort), day 35, and day 90 (pilot). This approach allowed for a clear evaluation of Zeolite Z®'s effectiveness in reducing aluminium levels over time.

- **Control group:** There was no control group included in the initial pilot study. While the 24- cohort study did include a control group, only baseline values were used for this analysis; therefore, control data is not applicable in the context of treatment progression.

Outcome measures

Although multiple toxic compounds were tested in both the pilot and 24-cohort studies, this paper focuses specifically on aluminium levels. The chart presented illustrates the trend in aluminium reduction over time.

The baseline mean average was established using data from the 24-participant cohort study (2024), as aluminium was not tested at baseline in the initial pilot. Subsequent aluminium levels at day 35 and day 90 were taken from the pilot study, where aluminium was first introduced into the testing protocol at day 35.

This outcome measure demonstrates a clear downward trend in aluminium concentration over the 90-day intervention period, highlighting the effectiveness of Zeolite Z® in supporting the reduction of aluminium burden in the body, as shown in the charts above.

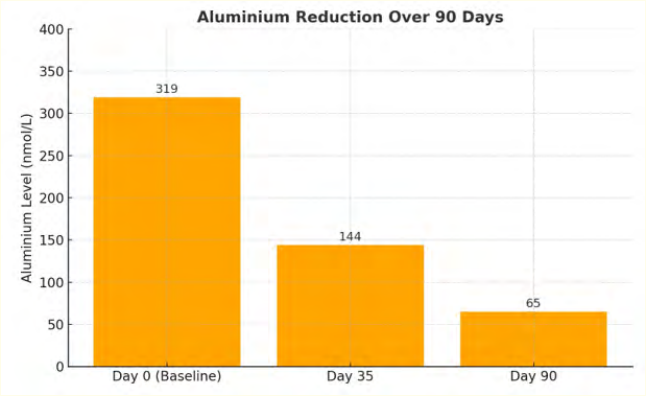

Chart 1

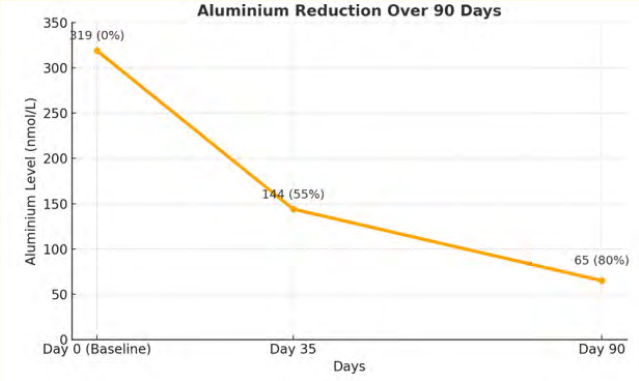

Chart 2

Data collection

An outsourced phlebotomist was employed to take venous blood samples from each test subject, with 3 × 4 ml vials collected at baseline, 35 days and 90 days.

Statistical analysis

Blood samples of participating subjects were measured for toxic compounds at nanomoles per litre (nmol/L) with the following reference ranges:

- **Tolerable:** 0 to 149,99 nmol/L
- **Borderline:** 150,00 to 299,99 nmol/L
- **High:** 300,00 to 449,99 nmol/L
- **Very High:** 450,00 to 650,00 nmol/L

Four separate sensors are used in the measuring equipment at the third-party lab to obtain four values [12]. Measurements included Arithmetic Mean (AM) of values 1 to 4 and Mean Absolute Deviation (MAD) [12].

Results

Participating subject flow

All three participants enrolled in the pilot study successfully completed the 90-day intervention period, with blood samples collected at baseline (day 0), day 35, and day 90. While the initial baseline assessment focused on five specific toxins, aluminium was introduced into the testing protocol at days 35 and 90. To enable a complete trajectory of aluminium reduction, the mean baseline

aluminium value was sourced from a separate 24- person cohort study conducted in 2024, which employed the same Intracellular Electrical Capacity (iEC) methodology. This strategic integration ensured methodological consistency and provided a reliable reference point. As a result, a clear and continuous three-point analysis of aluminium levels — baseline (from the 24-cohort), day 35, and day 90 (from the pilot study) — was achieved, allowing for meaningful evaluation of detoxification progress over time.

Baseline characteristics

Each subject voluntarily agreed to take part in the study and confirmed adherence to the study protocol. To prevent any potential bias or influence on the study outcomes, participants were not informed of their individual results until the conclusion of the study. This approach was intended to avoid any anxiety or actions, such as taking additional detox products, that might arise from learning about high toxic levels found in the body fluids and cells.

Participating subjects were instructed to maintain their usual diet and lifestyle throughout the study. They were explicitly advised not to engage in any additional supplement, diet, or lifestyle detox protocols during the study period.

Primary outcomes

The baseline blood tests revealed that all test subjects had predominantly high and very high levels >300,00 of toxic aluminium in their body fluids and cells, as shown in Chart 1 above. As the study progressed, the 35-day blood tests indicated a 55% reduction in aluminium levels, with most falling into the tolerable ranges (<149,99 nmol/L). By the 90-day mark, aluminium levels had further decreased by an additional 55% from the 35-day measurement, representing a total of 80% reduction from baseline to 90 days (VERIFY during numerical review).

Secondary outcomes

It is significant to note that while taking Zeolite Z® none of the participating test subjects' aluminium levels had reverted to the high or very high ranges seen at baseline.

Endpoint data analysis for wellbeing improvement

Participants in the 24-person cohort study were asked to complete a Wellbeing Questionnaire at baseline and at the end of the study, and self-reported results showed notable improvements across multiple well-being categories over the 120-day period. Sleep quality was self-reported as consistently improved, with many participants also noting enhanced dream vividness and recall, indicating deeper rest and neural repair. Physical energy levels were self-reported to have increased, while improvements in cognitive function were observed through reports of sharper focus and reduced brain fog. Reductions in aches and pains were also self-reported, suggesting a decrease in perceived systemic inflammation. Participants further described a heightened sense of conscious awareness, feeling more mentally and emotionally present in daily life. There was also a steady rise in reported daily joy, pointing to an overall uplift in emotional well-being and life satisfaction. These self-reported outcomes support the role of Zeolite Z® in potentially enhancing general wellness alongside its detoxification effects of aluminium.

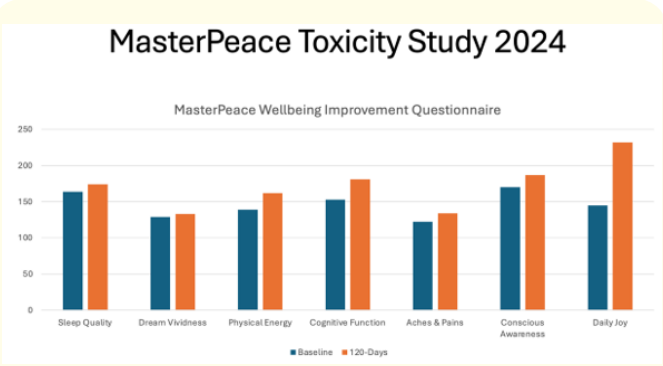

Figure 1

Adverse events

No negative side-effects or adverse reactions were observed in any test subjects throughout the study period, in both the pilot study and the 24-person cohort study, reinforcing the product's safety profile.

Discussion

Interpretative results

The objective of this study was to establish baseline levels of aluminium within the human body and to evaluate the efficacy of Zeolite Z® in reducing and/or removing aluminium from body fluids and cells. By integrating the baseline mean average aluminium

values from the 24-person cohort study (2024) with the day 35 and day 90 data from the pilot study, we created a continuous timeline that clearly tracks the progression of aluminium reduction over the 90-day intervention period.

The study demonstrated that Zeolite Z® safely and effectively reduces aluminium levels over time. The study objective was successfully met, with quantitative data confirming the detoxification efficacy of Zeolite Z®. This in-depth analysis supports the conclusion that Zeolite Z® is a safe and effective agent for the removal of toxic aluminium from the body fluids and cells.

Strengths and limitations

Strengths

One of the key strengths of this study is the use of the Intracellular Electrical Capacity (iEC) test [12], which offers a unique window into the cellular-level presence of genotoxic and cytotoxic compounds like aluminium — data that is typically inaccessible to most individuals and clinicians through conventional testing methods.

Importantly, the study revealed unexpectedly high baseline levels of aluminium in nearly all test subjects, serving as a valuable eye-opener regarding the toxic burden individuals may be carrying without awareness.

Another significant strength is the clear reduction in aluminium levels observed over just 90 days, with all participants demonstrating a shift from very high or high ranges to borderline or tolerable levels, as illustrated in the outcome charts. This measurable improvement over a relatively short intervention period highlights the potential of Zeolite Z® as an effective detoxification agent for aluminium.

Limitations

The primary limitations of this study include the small sample size in the pilot group, which is typical of early-phase exploratory research, and the relatively short duration of 90 days.

Additionally, the three test subjects were of similar age and background, which may limit the generalisability of the findings to broader populations.

Despite these limitations, the inclusion of baseline data from a separate 24-person cohort significantly strengthens the reliability of the aluminium measurements. This larger baseline group provided a valuable reference point, revealing consistently elevated aluminium levels across diverse individuals — underscoring the urgency and relevance of addressing this toxic burden in the general population.

Further research with a larger, more diverse sample size and extended study duration is essential to validate and expand upon these initial findings.

Implications for practice

Findings from both the pilot study and the 24-cohort baseline study suggest that Zeolite Z®, formulated by the Human Consciousness Support™ Company, holds significant promise as a natural detoxification intervention for reducing elevated levels of aluminium in body fluids and cells. The combination of a well-defined baseline (from the 24-person cohort) and the tracked reduction over 90 days (in the pilot study) provides early evidence that Zeolite Z® may be an effective, safe, and non-pharmaceutical option for managing aluminium toxicity. These encouraging results warrant further investigation in larger and more diverse populations, which could support its integration into clinical and preventative health practices worldwide to address the growing concern of aluminium accumulation in the human body.

Conclusion

Summary of key findings

In summary, this combined analysis of data from the pilot study and the 24-person cohort study demonstrated that the Zeolite Z® formulation, developed by the Human Consciousness Support™ Company and enhanced with colloidal sea minerals, effectively reduced elevated levels of toxic aluminium in the body fluids and cells over a 90-day period — without any reported adverse effects. Baseline aluminium values were established using data from the 24-cohort study, while the pilot study tracked the reduction in aluminium levels at day 35 and day 90, following consistent use of Zeolite Z®. All pilot participants showed a marked decrease in aluminium, moving from very high or high ranges to borderline or tolerable levels, as reflected in the outcome chart. These findings highlight the potential of Zeolite Z® as a safe and effective natural

detoxification agent for reducing aluminium burden in body fluids and cells, supporting its further evaluation in larger and more diverse populations.

Clinical relevance

These findings suggest that Zeolite Z®, developed by the Human Consciousness Support™ Company, holds promise as a beneficial nutraceutical for supporting health and wellness by reducing the toxic burden of aluminium in the body fluids and cells. Further research is warranted to explore its potential role in clinical and integrative health settings as a natural detoxification agent, with the aim of improving overall health outcomes in populations exposed to environmental toxins such as aluminium.

Future research

Building on the findings of the initial pilot study involving three participants and the recently completed 24-person cohort study — which featured a placebo-controlled, single-blinded design and evaluated cytotoxic, genotoxic, aluminium and other toxic and bio magnetic toxic compounds — a larger-scale research initiative is now warranted. Such a study could provide more comprehensive data on the efficacy of Zeolite Z®, developed by the Human Consciousness Support™ Company, for its expressed purpose of detoxifying the body fluids and cells. Expanding the sample size, study duration, and diversity of participants would also help to validate its clinical utility and potential integration into broader populations.

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- **Funding:** The study was funded by Human Consciousness Support™ Company.
- **Conflicts:** The author was a participant in the initial pilot study referenced in this paper. The current manuscript includes data from both the pilot and a subsequent study (Study 2), in which the author did not participate as a subject. The author is an independent researcher contracted to oversee study design and data analysis. All findings have been reported objectively, with no influence from the sponsoring party.

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