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# Quantum Wellness Transformation: Epigenetic, Metabolic, Quality of Health and Life Effects from a 24-unit Energy Enhancement System

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## Abstract

**Objective:** To describe epigenetic, metabolic, biometric, and participant-reported changes during the Quantum Wellness Transformation (QWT), a prospective pilot case series involving a 24-unit Energy Enhancement System (EESystem)™.

**Methods:** Twenty-six adults participated in a program totaling 52 hours of EESystem sessions over approximately six months, with a study period beginning in January 2024. The program also included recommended EESystem protocol salt baths and individualized discussions of test results. Measurements were collected at baseline and nominal three- and six-month visits. The final epigenetic analysis included 23 participants after two laboratory processing failures and one post hoc exclusion following a recent COVID-19 infection. Results were summarized descriptively; there was no control group or blinding.

**Results:** Using second generation epigenetic clocks to estimate biological age, calculation of 23 rounded participant rows in Appendix A shows a mean OMICmAge estimate change from 60.79 to 57.89 years (−2.90 years), with decreases in 18 participants. Additionally, the mean difference between OMICmAge and chronological age decreased by 3.44 years, with decreases in 19 participants. Including the participant with recent COVID-19 infection, the mean OMICmAge estimate decreased by 1.46 years and the mean age gap decreased by approximately 2.00 years across 24 participants; the corresponding decreases in the 23-person analysis were 2.90 and 3.44 years.

A third generation epigenetic clock that estimates rate of aging, DunedinPACE, showed the mean changed from 0.99 to 0.88 (−0.11) at 6 months, with decreases in 21 participants of the 23 person analysis. Including the participant with Covid-19 infection, the mean changed from 0.9946 to 0.9092 (-0.0854) with the 24 person analysis.

Body-fat percentage decreased in 15 of 26 participants, and waist-to-hip ratio decreased in 17 of 26. The eight participants with elevated baseline blood pressure had reported mean reductions of 28 mmHg systolic and 12 mmHg diastolic. Selected laboratory results moved into the study's stated intervals. With the study's author-classified survey method, 23 of 26 participants were categorized as reporting improved mental health, and 20 of 26 participants reported improved health and energy and improved stress levels.

**Interpretation:** These preliminary observations indicate that epigenetic, metabolic, biometric changes were seen during the QWT study with the primary intervention of 52 hours in a 24-unit EESystem, but do not establish that EESystem caused the changes, reversed aging, reduced disease incidence, or extended lifespan. The quality of health and life surveys indicated positive changes both quantitatively and qualitatively.

Keywords: EESystem; prospective case series; epigenetic age estimates; OMICmAge; DunedinPACE; metabolic markers; quality of life; participant-reported outcomes.

## Introduction

The Quantum Wellness Transformation (QWT) was a prospective, approximately six-month case series of 26 participants examining biometric, epigenetic, metabolic, and quality-of-life outcomes during a 24-unit EESystem program during the study period designed to run starting from January 2024.

Prior case studies and multiple independent scientific reports (1) have shown the benefit and effects of bioactive scalar fields from EESystem such as improved energy and mood, reduction of stress, reduced inflammation and pain, detoxification of whole blood, and improved metabolic health such as lower blood glucose levels, and reported positive impact on various conditions from other physicians such as cancer, seizures, strokes, with numerous reported testimonials on beneficial effects of various health symptoms and conditions, while mitigating detrimental effects of electromagnetic pollution (2-8). The present case series was designed to document quantifiable clinical measurements and participant-reported experiences.

## Methods

Twenty-six adults (20 women and six men) were recruited at Wellness Visions, a private center in Richmond, California. Informed consent and HIPAA consent were obtained; no independent review was obtained. Participants with existing health conditions were accepted.

The program consisted of 24 units EESystem sessions totaling 52 hours over approximately six months, equivalent to approximately two hours per week. Regular salt baths were recommended after sessions as part of the EESystem protocol.

Health, biometric, epigenetic, metabolic, and quality-of-life data were collected at baseline and nominal three- and six-month in-person health-data sessions. Participants were asked to complete 26 hours by 3 months and 52 hours by the final testing end point of approximately 6 months and participants had the option of daytime or overnight sessions. Note that the completion of final data was delayed by some participants due to travel or illness and the necessary required completion of 52 hours in EESystem which for some extended well beyond the 6 month endpoint (final endpoint range 5.4–9.7 months, averaging 6.44 months). Surveys collected information on health conditions, medications, supplements, energy, nutrition, exercise, sleep, purpose and connection, mental health, and resilience. Biometric measurements included height, weight, body-fat percentage, waist and hip measurements, blood pressure, pulse, and pulse oximetry (9).

Epigenetic test results were obtained from TruDiagnostic (10). OMICmAge biological-age estimates were measured at baseline and the six-month visit; DunedinPACE scores were measured at baseline and the nominal three- and six-month visits. Epigenetic clocks estimate aging-related characteristics from DNA methylation patterns (11, 12). The two outcomes were analyzed separately: OMICmAge as an estimated age in years, and DunedinPACE as an estimated pace-of-aging score.

The OMICmAge–chronological age gap was defined as OMICmAge minus chronological age at the same visit. Its paired change was calculated as the follow-up gap minus the baseline gap. This differs from the change in OMICmAge itself, which is the follow-up OMICmAge estimate minus the baseline estimate. A negative paired change indicates a decrease in the specified measure. This study did not determine whether those changes translated into reduced disease risk or longer lifespan.

Metabolic data were collected using Choose Health Wellness and Adrenal Health test kits (13). Wellness panels included hemoglobin A1c (HbA1c), a triglyceride-to-HDL cholesterol ratio (TG/HDL-C), total cholesterol, HDL cholesterol, LDL cholesterol, triglycerides, high-sensitivity C-reactive protein (hsCRP), and gamma-glutamyl transferase (GGT), as available in the respective panels.

The Female Wellness panel also included thyroid-stimulating hormone (TSH), vitamin D, estrogen, progesterone, luteinizing hormone (LH), and follicle-stimulating hormone (FSH). The Male Wellness panel also included prostate-specific antigen (PSA), free and total testosterone, estrogen, LH, and sex hormone-binding globulin (SHBG). The Adrenal Health panel included fasting morning cortisol and dehydroepiandrosterone sulfate (DHEA-S). The intervals used in the tables were taken from the test reports.

One-hour individual Medical Advising Sessions were scheduled after each of the three health-data sessions, once laboratory results were available. Participants discussed their results and any recommended health or lifestyle changes.

Quality-of-life surveys were adapted to include energy assessments from validated survey instruments as the American College of Lifestyle Medicine and Loma Linda University Lifestyle Assessment Long Form (14). Quantitative ratings with Likert scales and qualitative responses were collected at baseline and nominal three- and six-month visits. Appendix B reproduces the supplied questionnaire and its baseline/six-month administration indicators. Domains included energy, sleep, nutrition, exercise, mental health, mind-body connection, purpose and connection, stress, and resilience.

Results were summarized descriptively. No inferential or independent statistical analyses were performed. Measurements obtained at different visits were paired by participants. No adverse events or withdrawals were reported. Participants were instructed to notify the research team of adverse events.

Epigenetic values were checked arithmetically based on the original laboratory data. Recalculated values are identified as such and use only the rounded observations in Appendix A. No p-values have been added. Ranges determined by the original DunedinPace study (12) were used for comparison in the study.

The program comprised EESystem sessions, recommended salt baths, and individualized discussions of test results. No structured lifestyle-education program was provided. For example, participants with elevated HbA1c were advised about dietary changes such as avoiding sugar. Participants were advised to consult their own healthcare providers; changes in diet, exercise, medications, and supplements were not assigned or controlled by the study.

This was prospective case series designed by this author that was not designed to be blinded or controlled. The contributions of EESystem exposure and recommended baths were the main focus, though individualized advice offered at baseline and 3 months during the study, other treatment or lifestyle changes, and changes over time cannot be separated. Self-reported outcomes may also reflect participants' expectations. The small sample, multiple descriptive outcomes, incomplete epigenetic data, and post hoc exclusion limit interpretation.

Epigenetic analysis sets: Two final specimens could not be processed by the laboratory. A third participant was excluded from the main final epigenetic analysis after a COVID-19 infection approximately one week before follow-up testing. The COVID-related exclusion was not prespecified. The main analysis therefore includes 23 of 26 participants; an additional analysis including the COVID participant (n = 24), discussed with the results. Final collection of data, calculations and interpretations of epigenetic and metabolic testing were done by this author as a licensed physician and provider.

# Results

## A. Baseline Data

### Biometric Vitals:

**1. Age and Gender** - 20 women and 6 men aged 41-75 (average age 61.29) enrolled in the QWT study.

2. **BMI - The Body Mass Index (BMI)**, calculated by dividing weight (kg) by height (m) squared, was obtained for all participants. BMI has been used as a screening tool to estimate body fat, categorizing adults as underweight <18.5, healthy weight (18.5–25), overweight (>25), or obese (>30) to assess potential health risks like heart disease or diabetes and overall health.

**Table 1. Baseline BMI for QWT Participants**

| | |
|---|---|
| Underweight, BMI 17 - <18.5 | 2 |
| Normal, BMI 18.5 - <25 | 13 |
| Overweight, BMI 25 - <30 | 7 |
| Obese, BMI 30 and over | 4 |

### 3. Body Fat Percentage

Body Fat Percentage (BFP) measures the actual proportion of fat versus lean mass, offering a more precise picture of body composition. BMI can misclassify muscular people as overweight and does not show fat distribution, which makes BFP often a better health indicator. The BFP can be measured in different ways and was collected via a smart scale using Bioelectrical Impedance Analysis (BIA) that provided body fat percentage with changed noted in interval time points as changes in percentage points in this study.

Body Fat Percentage can vary by gender, age and fitness level. In men, average BFP is 18-24%, with 25% or higher considered obese. Very fit men may have a BFP of 14-17%. Average BFP for men 40-49 is 21-26%, 50-59 23-28%, 60-79 24-29%.

In women, average BFP is 25-31%, with 32% or higher considered obese. Very fit women may have a BF of 21-24%. Average BFP for women 40-49 is 23-33%, 50-59 24-34%, 60-79 22-33%.

**Table 2. Baseline Body Fat Percentage QWT participants adjusted for age and gender**

| BFP | Men | Women |
|---|---|---|
| Low | 1 | 3 |
| Average | 4 | 9 |
| High | 1 | 8 |

### 4. Waist to Hip Ratio

Waist-to-hip ratio (WHR) measures fat distribution, specifically visceral fat around organs, acting as a better predictor of chronic diseases like heart disease, stroke, and type 2 diabetes than BMI. High abdominal fat indicates more central obesity, increased inflammation and metabolic issues, affecting overall health.

For males, a normal waist-to-hip ratio is below 0.90. For women, a normal waist-to-hip ratio is below 0.85.

**Table 3. Baseline Waist to Hip QWT Participants**

| WHR | Men | Women |
|---|---|---|
| Normal | 2 | 12 |
| High | 4 | 8 |

**5. Blood Pressure**

Blood pressure (BP) was recorded to describe changes during the program. Tables 4 and 9 use the study's stated <140/90 mmHg threshold to distinguish the reported lower and elevated categories. This is the study's reporting convention; it should not be interpreted as an individualized treatment target or a comprehensive diagnostic classification. Note that certain individuals with conditions such as diabetes and heart disease have lower BP goal of <130/80.

**Table 4. Baseline Blood Pressure QWT Participants based on indicated goal**

| BP | Participants |
|---|---|
| <140/90 | 18 |
| ≥140/90 | 8 |

## Epigenetic Testing:

26 adult study participants had a range of chronologic age from age of 41 to 75 with an average age of 61.29. The baseline epigenetic information showed that the average chronological age varied with the biological age. 13 of the participants were biologically younger than their chronologic age with an average biologic age of 63.40 compared to chronologic age of 67.12 with a delta age difference of -3.72 years. 13 of the participants were biologically older than their chronologic age with an average biologic age of 58.92 compared to chronologic age of 55.45 with a delta age difference of 3.47 years at baseline. (Table 5)

**Table 5. Baseline Biological compared to Chronological Age (years)**

| Biological vs Chronologic Age | Chronological Age Average | Biological Age Average | Delta Age |
|---|---|---|---|
| Younger Biologically | 67.12 | 63.40 | -3.72 |
| Older Biologically | 55.45 | 58.92 | 3.47 |

**Metabolic**: See comparison at baseline, 3, 6 months

1. Metabolic - HbA1c, TG/HDL-C ratio, hsCRP, and GGT
2. Lipids - Total cholesterol, Triglycerides, HDL, LDL
3. Hormones - thyroid (TSH), vitamin D, female and male hormones, adrenal

## Health Information:

1. Health Conditions, Pre-existing: Allergies, Anxiety, Cardiac, Depression, Diabetes/Prediabetes, Dysmenorrhea, Gout, Hashimoto's thyroiditis, HTN, Inflammation, Gut health issues, Parkinson's, PTSD, Osteoarthritis, Psoriatic Arthritis, Rheumatoid Arthritis, Renal, Sexual Dysfunction -17 participants

2. Prescribed Medication Use – Antidepressants, anxiolytics, antipsychotic medications, Bio-identical hormones, Diabetes oral medications or insulin, Thyroid, Immunosuppressants, Parkinson medications - 13 participants

3. Supplement Use – 24 on regular supplements including Apple Cider Vinegar, Biotin, Boron, Calcium, CoQ10, DHEA, Herbs, Iodine, Lutein, Lysine, Magnesium, Multivitamin, NMN, Omega 3, Probiotic, Quercetin, SAM-E, Saw Palmetto, Vitamin B12/folate, Vitamin C, Vitamin D3/K2, Zeolite, Zinc

Quality of Health and Life/Lifestyle Assessment Survey: See baseline to 6 month comparison

## B. 3 month Data

Biometric data showed a decrease in body fat percentage points in 11 of 26 participants (Table 6) and a decrease waist to hip ratio in 20 out of 26 subjects (Table 8).

DunedinPACE decreased at three months in 21 of 26 participants, with a mean change of approximately −0.07 (see Appendix A2 table). OMICmAge was not measured at three months per laboratory recommendations.

Selected metabolic and hormone measurements moved into, or toward, the study's laboratory stated intervals. The following tables distinguish baseline out-of-range groups from their follow-up categories; a change in a laboratory category is not, by itself, evidence of resolution of a clinical disorder.

## C. 6 month Data

**Biometric Vitals:**

**1. Body measurements** - No changes in BMI categories were seen at three or six months. At six months, 15 of 26 participants were classified as having lower body-fat percentage points (Table 6). The reported mean decrease of BFP among those 15 participants was 1.7 percentage points, not a 1.7% relative reduction based on their baseline with boundary values based on their gender and age. Weight-change categories are shown in Table 7 were evaluated at differences in weight that were decreased or increased by 3 pounds (lb) or changes less than 3 lb to differentiate subgroups of participants with weight change using the same scale for all participants at all time points utilized in the study. A 2 to 3 lb weight change may result from normal daily weight fluctuation. Waist-to-hip ratio decreased in 20 of 26 participants at three months and 17 of 26 at six months (Table 8).

**Table 6. Participants with Body Fat Percentage Points Change from Baseline**

| BFP change (percentage points) | 3 months | 6 months |
|---|---|---|
| Decrease >1 point | 11 | 15 |
| Absolute change ≤1 point | 4 | 2 |
| Increase >1 point | 11 | 9 |

9 of 9 participants who had high BFP at baseline reduced BFP at 6 months.

1 of 4 participants with low BFP at baseline increased to normal BFP 6 months.

**Table 7. Weight change 3 lbs plus difference from Baseline to 6 months**

| Weight | 3 months | 6 months |
|---|---|---|
| Decrease >3 lb | 3 | 6 |
| Absolute change ≤3 lb | 17 | 15 |
| Increase >3 lb | 6 | 5 |

4 of 6 who lost weight by 6 months were overweight, 2 had normal weight.

**Table 8. Participants with Waist-to-Hip Ratio Change from Baseline**

| WHR | 3 months | 6 months |
|---|---|---|
| Decrease | 20 | 17 |
| No Change | 1 | 4 |
| Increase | 5 | 5 |

11 of 11 overweight or obese by BMI had a decrease in WHR ratio by 6 months.

3. **Blood pressure** - Eight participants had elevated readings at baseline of ≥140/90. Three of those eight were in the study's lower category at three months and four at six months. The remaining four also had lower readings. The mean reductions for the eight-person baseline-elevated group were 28 mmHg systolic and 12 mmHg diastolic; these are not whole-cohort averages (Table 9).

**Table 9. Participants Blood Pressure Category**

| BP | Baseline | 3 months | 6 months |
|---|---|---|---|
| <140/90 | 18 | 21 | 22 |
| ≥140/90 | 8 | 5 | 4 |

Elevated Blood Pressure in 8 Participants from Baseline to 6 months

- Average Decrease in Systolic Blood Pressure (SBP) 28 mmHg (vs baseline SBP 145-223 mmHg)
- Average Decrease in Diastolic Blood Pressure (DBP) 12 mmHg (vs baseline DBP 86-112 mmHg)

## Epigenetic Testing:

The final epigenetic analysis included 23 of 26 participants: two participants lacked processable final specimens and one was excluded after a recent COVID-19 infection. The exclusion was post hoc. The rounded paired data for the 23 analyzed participants are reproduced in Appendix A.

1. **OMICmAge** - Among the 23 analyzed participants, calculation gives a mean OMICmAge estimate of 60.79 years at baseline and 57.89 years at follow-up, a mean change of −2.90 years. Eighteen participants had lower estimates at follow-up and five had higher estimates.

Separately, the mean OMICmAge–chronological age gap changed from +0.15 to −3.28 years, a mean paired change of −3.44 years. This gap decreased in 19 participants and increased in four. Among the 19 with a decreasing gap, the mean gap change was −4.63 years (observed range −15.69 to −0.49); among the four with an increasing gap, the mean was +2.25 years.

Being below chronological age at a visit is a different comparison from decreasing from one's own baseline. Ten participants had OMICmAge below chronological age at baseline and 19 at follow-up. Table 10 reports these comparisons separately. See Appendix A for the underlying displayed values.

OMICmAge was not measured at three months, consistent with the testing schedule suggested by the testing provider. Two final specimens were submitted but could not be processed by the laboratory.

The participant excluded after COVID-19 infection was described as having an OMICmAge estimate 0.85 years below chronological age at baseline and 30.33 years above chronological age 1 week after illness. In the additional analysis including the participant with recent COVID-19 infection, the mean OMICmAge estimate decreased by approximately 1.46 years, and the mean OMICmAge–chronological age gap decreased by approximately 2.00 years across 24 participants in Appendix A1b. The corresponding decreases in the 23 participant analysis were 2.90 and 3.44 years, respectively. The COVID-related exclusion was not prespecified.

Note that similar anomalous results were seen in a subject on site outside of this study where a COVID-19 infection had a 30 year plus change from prior OMICmAge estimates.

**Table 10. OMICmAge: Paired Changes and Comparisons with Chronological Age (n = 23)**

**A. Paired numerical summaries**

| Measure | Baseline mean | Final mean | Mean paired change | Decreased / increased |
|---|---|---|---|---|
| OMICmAge estimate (years) | 60.79 | 57.89 | −2.90 | 18 / 5 |
| OMICmAge minus chronological age (years) | +0.15 | −3.28 | −3.44 | 19 / 4 |

**B. Visit-level comparison with chronological age**

| OMICmAge compared with chronological age | Baseline, n | Final visit, n |
|---|---|---|
| Below chronological age | 10 | 19 |
| Above chronological age | 13 | 4 |

Calculation notes: Mean paired change is the sum of each participant's follow-up-minus-baseline difference divided by 23. For the age gap, the displayed differences sum to −79.06 years; −79.06 ÷ 23 = −3.44 years. The OMICmAge estimate changes sum to −66.71 years; −66.71 ÷ 23 = −2.90.

**2. DunedinPACE** - Scores decreased from baseline in 21 of 23 participants and increased in two. The mean score changed from 0.99 to 0.88, an overall mean paired change of −0.11 (see Appendix A2a). Using the displayed

values, mean changes were −0.123 among the 21 participants with decreasing scores and +0.025 among the two with increasing scores.

Twenty participants had follow-up scores below 1.0; three had scores at or above 1.0. These visit-level categories are reported separately from the direction of within-person change. A lower score can remain above 1.0, and an increasing score can remain below 1.0.

DunedinPACE was measured at baseline and the nominal three-month and final visits.

**Table 11. DunedinPACE: Score Levels and Paired Changes (n = 23)**

### A. Mean scores and paired changes

| Visit | Mean score | Mean change from baseline | Decreased / Increased |
|---|---|---|---|
| Baseline | 0.99 | Not applicable | Not applicable |
| Three months | 0.91 | −0.08 | 19 / 4 |
| Final visit | 0.88 | −0.11 | 21 / 2 |

### B. Scores relative to the reference value of 1.0

| Category | Baseline, n | Three months, n | Final visit, n |
|---|---|---|---|
| Score <1.0 | 13 | 18 | 20 |
| Score ≥1.0 | 10 | 5 | 3 |

### C. Final paired-change subgroups

| Direction of score change | Participants, n | Mean paired change |
|---|---|---|
| Decreased from baseline | 21 | −0.123 |
| Increased from baseline | 2 | +0.025 |

All summaries use the rounded 23-person values in Appendix A. A displayed score of exactly 1.00 is counted in the ≥1.0 group; original higher-precision values may affect classifications.

DunedinPACE is reported as an estimated pace-of-aging score; 1.0 represents the reference pace of one biological year per chronological year. The DunedinPACE test report has a range of 0.6 to 1.4 of biological year per chronological year based on the DunedInPace study and the prior large population studied. (10,12)

The mean paired change from the 23 displayed scores is −0.11. Multiplying 0.11 by 365 gives approximately 40 days per calendar year as a score-equivalent conversion only; it does not measure 40 extra days of life or a demonstrated change in lifespan.

Including the participant with Covid-19 infection, the mean DunedinPACE decreased from approximately 0.9946 to 0.9092, a mean paired change of −0.0854 with the 24 person analysis (see Appendix A2b)

**3.Telomere**-related result – The data showed a telomere-related age difference in two of 23 participants, averaging −0.45 years, with an observed range of −0.70 to −0.20 years.

## Metabolic Testing:

**1. Hemoglobin A1c (HbA1c)** measures your average blood sugar levels over the past three months and is used to identify prediabetes and diagnose or manage diabetes.

**2. TG/HDL-C ratio** - "Insulin resistance" as described in the provided test kit is triglycerides divided by HDL cholesterol. It is reported here as the TG/HDL-C ratio, a surrogate marker rather than a direct measurement of insulin resistance, with the laboratory stated interval of 0–2.

**Table 12. HbA1c and TG/HDL-C Ratio: Follow-up of Baseline Out-of-Range Groups**

| Measure (stated interval) | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| HbA1c (<5.7%) | M, F | 14 high | 4 within | 3 within |
| TG/HDL-C ratio (0–2) | M, F | 14 high | 9 within | 5 within |

In laboratory tables, "within" means within the study/test-provider interval. Follow-up counts refer to the relevant baseline out-of-range subgroup unless otherwise specified. Category labels do not establish clinical diagnoses.

Fourteen participants had elevated HbA1c and 14 had elevated TG/HDL-C ratios at baseline. At three months, four were within the stated HbA1c interval and nine were within the ratio interval. At six months, three were within the HbA1c interval and five were within the ratio interval. These counts describe interval status, not the magnitude of change or confirmed resolution of insulin resistance.

**3. Inflammation** was assessed via the high-sensitivity C-reactive protein (hsCRP) levels to measure low levels of inflammation in the body and help evaluate risk for cardiovascular disease/ Under 1.0 mg/L means low systemic inflammation and a lower risk of heart disease.

Common Triggers: Visceral fat, poor sleep, insulin resistance, smoking, ultra-processed foods, and chronic stress can raise your levels. Temporary spikes can also happen due to acute infections or injuries.

**Table 13. Inflammation Marker - High Sensitivity C-Reactive Protein**

| Inflammation Marker | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| hsCRP (0 - 1 mg/L) | M, F | all within | all within | all within |

**4. GGT** - Gamma-glutamyl transferase (GGT) is an oxidative-stress-related marker for the testing provider. GGT was measured only in the six male participants as it was included in the Male Wellness panel. The reported categories are shown in Table 14.

**Table 14. GGT: Follow-up of the Baseline Out-of-Range Group**

| GGT (laboratory interval) | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| GGT (0 - 14 U/L) | M | 3 high | 1 within range | 1 within range |

3 of the 6 male participants had high levels of GGT at baseline with improvement to normal range seen in 1 participant by 3 and 6 months

**5. Kidney and liver function** - These results remained within the stated intervals at all time points.

**6. Lipid Levels:**

**a.** **Total cholesterol level** for adults is less than 200 mg/dL. Total cholesterol is the overall measurement of the cholesterol found in all the particles (lipoproteins) in your blood. It is calculated by adding HDL plus LDL plus 20% of Triglycerides.

**b.** **High-density lipoprotein or HDL**, called the "good" cholesterol because it absorbs extra cholesterol from your blood and carries it back to your liver. Your liver then removes the cholesterol from your body. High levels of HDL can lower your chance of getting heart disease and having a stroke. HDL (good) cholesterol is the one number you want to be high. Optimal protection against heart disease is 60 mg/dL or higher. Levels below 40 mg/dL for men and 50 mg/dL for women are considered low and increase health risks.

**c.** **Low-density lipoprotein or LDL** cholesterol, called "bad" cholesterol because it can build up in your blood vessels and cause heart problems. For most healthy adults, an optimal LDL level is less than 100 milligrams per deciliter (mg/dL). Lower numbers are better to reduce the risk of heart disease and stroke. People with existing heart disease or diabetes often need an even lower target goal, sometimes < 70 mg/dL which were not applied to this study. 2 participants with known diabetes had a lower threshold of LDL goal of <100 mg/dL and the same rule was applied at baseline and follow-up. For this study, the stated laboratory range of LDL <100 mg/dL was on test report though LDL of 100-129 mg/dL or <130 mg/dL is considered for healthy individuals clinically as determined by this author on the participants health history.

**d.** **Triglycerides** are the most common type of fat (lipid) found in your blood. Your body turns extra calories you do not need right away into triglycerides and stores them in your fat cells. High triglycerides can raise your risk for heart disease, stroke, and painful swelling of the pancreas. Normal is less than 150 mg/dL

**Table 15. Lipid Levels: Follow-up of Baseline Out-of-Range Groups**

| Measure (laboratory interval) | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| Total Cholesterol (<200 mg/dL) | M, F | 14 high | 14 high | 2 within |
| HDL (normal F >50 mg/dL, M >40 mg/dL) | M, F | 6 low | 6 within | 6 within |
| Triglycerides (<150 mg/dL) | M, F | 6 high | 3 within | 3 within |
| LDL (normal <100 mg/dL or <130 mg/dL) * | M, F | 9 high | 3 within | 5 within |

*2 participants with known diabetes type 2 had target <100 mg/dL and 24 participants had target <130 mg/dL

2 improved to normal out of 14 with high Total Cholesterol

6 improved to normal HDL levels out of 6 with baseline low HDL levels

3 improved to normal Triglycerides out of 6 with high levels

5 of 9 participants with elevated baseline LDL were reported within the study's stated interval at six months

**7. Hormone Changes:**

**Thyroid Stimulating Hormone (TSH)** measures the amount of TSH produced by the pituitary gland to manage thyroid function in metabolism.

For this report, "low" and "high" TSH refer to values below or above the laboratory's stated 1.7–3 µIU/mL interval. The supplied category counts alone do not establish a diagnosis of hyperthyroidism or hypothyroidism.

**Table 16. TSH: Follow-up of Baseline Out-of-Range Groups**

| TSH (stated interval) | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| TSH (1.7–3 µIU/mL) | F | 10 low | 4 within | 6 within |
| TSH (1.7–3 µIU/mL) | F | 2 high | 2 high | 2 high |

Six of the 10 participants with TSH below the stated interval at baseline were within that interval at six months. The two participants above the interval remained above it.

**Vitamin D** - Vitamin D was measured in the Female Wellness panel. Table 17 uses the test-provider interval reported in the study, 30–100 ng/mL.

**Table 17. Vitamin D: Follow-up of the Baseline Out-of-Range Group**

| Vitamin D Level | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| Vitamin D (30 to 100 ng/mL) | F | 4 low | 2 within | 2 within |

Two of the four women with vitamin D below the stated interval at baseline were within it at three and six months.

### Sex Hormones

i. **Follicle Stimulating Hormone (FSH)** levels in women vary by age and stage of the menstrual cycle. High FSH Levels suggest diminished ovarian reserve, perimenopause, menopause, or primary ovarian insufficiency if found in women under 40.

ii. **Progesterone** levels vary with the ovulation cycle, rising high after ovulation or during pregnancy.

### iii. Estradiol

a. Female - Normal estradiol ranges for women vary significantly by age and menstrual cycle phase. Reproductive Age (General): 10 to 300 pg/mL (or up to 400 pg/mL depending on lab standards). Menopause (Postmenopausal): Typically less than 10 to 20 pg/mL. Estradiol is the primary and most powerful form of estrogen during a woman's reproductive years, acting as a crucial regulator for reproductive, skeletal, cardiovascular, and brain health

b. Male - Normal estradiol levels for adult men typically range from 10 to 40 pg/mL. It regulates libido, aids fertility, protects bones and supports metabolism in men.

### iv. Luteinizing Hormone

a. Female - Luteinizing hormone (LH) levels in women vary widely depending on the phase of the menstrual cycle, age, and reproductive status. i. High LH levels: Consistently high LH outside of the mid-cycle surge can indicate primary ovarian insufficiency, menopause, or polycystic ovary syndrome (PCOS/PMOS), where an elevated LH-to-FSH ratio is common. ii. Low LH levels: Suppressed or low levels can point to pituitary gland dysfunction, severe stress, extreme weight loss, malnutrition, or hypothalamic amenorrhea.

b. Male - Normal luteinizing hormone (LH) levels in adult men typically range between 1.5 and 10 IU/L (or mIU/mL). LH is a chemical messenger made by the pituitary gland in the brain. In men, LH travels to the testicles to trigger the production of testosterone. Doctors test LH levels to check for fertility issues, sexual dysfunction, or hormone disorders. i. High LH: Primary hypogonadism (testicular failure). The testicles are

damaged or cannot make testosterone, so the pituitary gland makes extra LH to try to force them to work, Testicular injury. ii. Low LH: Secondary hypogonadism (pituitary or hypothalamic dysfunction). The brain fails to send the proper signal to the testicles, and this can be from severe stress, extreme malnutrition, obesity, chronic liver disease, or use of exogenous testosterone.

**Table 18. Sex Hormones: Follow-up of Baseline Out-of-Range Groups**

| Measure (stated interval) | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| FSH (1.1 - 9.2 mIU/mL) | F | 17 high | 17 high | 17 high |
| Progesterone (4 - 20 ng/mL) | F | 17 low | 2 within | 3 within |
| Estradiol (M 10–40; F 20–350 pg/mL) | F, M | 25 low | 5 within | 3 within |
| LH (M 1.5 - 10, F 5 - 25 IU/L) | F, M | 9 low (5M, 4 F), 13 high (1M, 12F) | 1 within | 2 within |

The displayed intervals are reproduced from the test-provider ranges cited in the source. Movement into a displayed interval is reported descriptively; applicability by sex, menopausal status, menstrual-cycle phase, and hormone treatment was assessed by this author in individual history interviews of female participants.

Three women with baseline estradiol and progesterone below the stated intervals had values within those intervals at six months.

One man with baseline estradiol below the stated interval had a value within it at three months.

Two participants (one man and one woman) with baseline LH below the stated interval had values within it at six months.

**v. Total Testosterone** - normal total testosterone level for adult men typically ranges from 300 to 950 ng/dL, naturally peak around age 18 to 19 and slowly decline by about 1% each year after age 30 or 35.

**vi. Free Testosterone** - Free testosterone in adult men is the unbound, active portion of the hormone circulating in the blood that is readily used by cells. It makes up only about 1% to 3% of a man's total testosterone. The rest is bound to proteins like sex hormone-binding globulin (SHBG) and albumin. Levels naturally peak in young adulthood and gradually decrease by about 2% to 3% each year after age 30.

Total vs. Free: Total testosterone measures both the hormone attached to proteins (albumin and sex hormone binding globulin) and the free testosterone in your blood. Free testosterone (which makes up only 1% to 2% of the total) is the active form used by your cells.

**vii. Sex hormone-binding globulin or SHBG** - Levels in adult men range from 10 to 57 nmol/L. SHBG is a liver made protein that attaches to sex hormones like testosterone, controlling how much of it remains active and usable by your body's tissues. SHBG levels naturally increase as a man ages. When SHBG is high, it locks up too much testosterone, leaving less "free" or bioavailable testosterone for your body to use, leading to low sex drive, erectile dysfunction, fatigue, and loss of muscle mass

**viii. Prostate-Specific Antigen or PSA** - A protein produced by the prostate gland. It acts as a general indicator of prostate activity. Levels can change due to age, benign enlargement, inflammation, or other non-cancerous factors or cancer.

**Table 19. Male Hormones and PSA: Reported Interval Categories**

| Measure (stated interval) | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| Testosterone, Total (264 - 950 ng/dL) | M | 4 low | 1 within | 3 within |
| Testosterone, Free (4 - 25 ng/dL) | M | 5 low | 3 within | 2 within |
| SHBG (10 - 57 nmol/L) | M | 1 high | 1 within | 1 within |
| PSA (0 - 2 ng/mL) | M | all within | all within | all within |

Three of the four men with total testosterone below the stated interval at baseline were within it at six months.

Two of the five men with free testosterone below the stated interval at baseline were within it at six months.

The man with SHBG above the stated interval at baseline was within it at three and six months.

**Adrenal markers - Cortisol, DHEA-S, and the reported cortisol/DHEA-S ratio**

i. **Cortisol** - Fasting morning cortisol was measured. The laboratory's stated interval was 6–18 µg/dL. Counts are reported relative to that interval rather than as diagnoses of adrenal dysfunction.

ii. **DHEA-S** - Dehydroepiandrosterone sulfate was measured in the Adrenal Health panel. The study lists sex specific intervals in Table 20; the source also notes that levels vary with age and sex.

iii. **Cortisol/DHEA-S ratio** - Table 20 reports a cortisol-to-DHEA-S ratio with a stated interval of 6–33:1.

**Table 20. Adrenal Markers: Follow-up of Baseline Out-of-Range Groups**

| Measure (stated interval) | Gender | Baseline | 3 months | 6 months |
|---|---|---|---|---|
| Cortisol (6 - 18 ug/dL) | F, M | 8 low | 5 within | 7 within |
| DHEA-S (M 40 - 330 ug/dL, F 60 - 407 ug/dL) | F, M | 5 low | 2 within | 2 within |
| Cortisol/DHEA-S (6 - 33:1) | F, M | 4 low | 1 within | 1 within |

Seven of the eight participants with cortisol below the stated interval at baseline were within it at six months.

Two of the five participants with DHEA-S below the stated interval at baseline were within it at six months.

One of the four participants with the cortisol/DHEA-S ratio below the stated interval at baseline was within it at six months.

## Quality of Health and Life Survey:

Table 21 combines score-based changes and author-classified written responses from participants. Sleep, nutrition and exercise were classified using each participant's change in the corresponding baseline and final numerical ratings: positive changes indicated improvement, zero indicated no change, and negative changes indicated worsening. Reviewing written comments did not alter these classifications. For health and energy, purpose and connection, stress, resilience, mind-body connection, and mental health, the author classified participants' written responses to the final-visit questions as improved, unchanged or worse. For the nine outcomes summarized in Table 21, there were no mixed, unclear, or missing responses. The separate open-

ended health-vision question reported in Section B had one missing response; that question was not used to calculate Table 21.

**Table 21. Quality of Health and Life Survey: Participant-Reported Categories (n = 26)**

| Responses in 6 months with 52 hours in EESystem sessions | Improved | No Change | Worse |
|---|---|---|---|
| 1. How has EESystem affected your health and energy? | 20 | 6 | 0 |
| 2. Rate your current quality of sleep (change from baseline to 6 months) | 13 | 13 | 0 |
| 3. Rate your current quality of nutrition (change from baseline to 6 months) | 11 | 15 | 0 |
| 4. Rate your current level of exercise (change from baseline to 6 months) | 13 | 13 | 0 |
| 5. How has the EESystem impacted on your purpose or connection? | 15 | 10 | 1 |
| 6. How has the EESystem impacted on your stress level? | 20 | 6 | 0 |
| 7. How has the EESystem impacted on your resilience? | 13 | 13 | 0 |
| 8. How has the EESystem impacted on your mind-body connection? | 15 | 11 | 0 |
| 9. How has the EESystem impacted on your mental health? | 23 | 3 | 0 |

## Health and Life Survey - Qualitative Data:

The following quotations are participants' own words, reproduced from the source. They express individual experiences and attribution.

### A. Participant Survey Responses at 6 months after EESystem

### 1. Health and Energy

a. "While actively having sessions, I was very energetic and able to accomplish a lot."

b. "Leveled out my energy slumps"

c. "These have had the most benefits on my energy levels."

d. "I saw a lot of positive infusion to my health, energy levels and consciousness."

e. "It's given me more energy as it's allowed me to feel more relaxed."

f. "Along with a healthy diet, meditation and exercise I believe that the EESystem has helped support my improved health."

### 2. Sleep

a. "I can wake up after a wonderful deep 8 hours of sleep and feel rested and restored."

b. "I do seem to be sleeping more deeply. "

c. "I sleep longer and deeper."

d. "I feel it's made me less anxious, my mind more calm & so I fall asleep more easily."

e. "Improved the quality of overall sleep."

### 3. Nutrition

a. “EESystem corrected an imbalance in my blood sugar. I can eat things that I could not before. I would have huge reactions to eating carbs. Seems like it made a difference in my insulin resistance.” b. “Feeling more rested and creative to create more vibrant meals. “

c. “I noticed after sessions I am less apt to have emotional eating. “

### 4. Exercise

a. “More energy for physical tasks.“

b. “I feel stronger.”

c. “After a session, I will feel like I have more energy to do something and I quite often will use it to exercise.“

d. “Stronger, can do more things at gym that I could not before, more flexible”

### 5. Purpose & Connection

a. “Ease in higher connection and intuition.”

b. “Feeling more connected to my soul”

c. “I feel relaxed and more rooted in self and spirit.”

d. “Purpose/connection has improved”

e. “ I do think of EESystem as spiritual support.”

f. “I definitely felt a higher level of consciousness and a better ability to focus on the positive.” g. “I feel it's made me more connected.”

h. “I feel, when I am in a session, that my spiritual connection is higher.”

i. “I always feel stronger in my self esteem after a session!”

### 6. Stress Level

a. “Less general anxiety, handling things much smoother that used to really stress me out”

b. “I am much more calm and this is noticed by those around me.”

c. “Stress level is better.”

d. “Much more calm and balanced”

e. “I believe the EESystem sessions have enabled me to better deal with the unusually high amount of stress I have had.”

f. “I did notice it helped not get stressed. During the sessions there was a lot of craziness but I never got ruffled.” g. “Overnights have had the greatest effect.”

h. “It seemed to help me not be bothered by or stress about the difficult things in my life so much.”

i. “In general I feel more calm and at peace with myself.”

j. “I have been able to handle stress much easier!!!”

k. “The EESystem helps keep stress down.”

### 7. Resilience

a. “Feel more balance.”

b. “Finding more ways and facets to view things that I had hidden from myself to process.” c. “I feel I am more resilient.”

d. “I have been able to step back and analyze better lately.”

e. “It has helped me to be more calm in otherwise anxiety causing situations.”

f. “The EESystem helps bring me up when I feel depleted. It is essential.”

g. “Easier to go with the flow, don't trip as much, bounce back quicker”

**8. Mind-Body Connection**

a. “Allowing more time for this awareness and staying to myself when I need to process.”

b. “Feeling more aware of what is happening within.”

c. “More peaceful and present”

d. “I feel I’m able to notice my emotions more and then be able to deal with it better.”

e. “When I am in a session, it makes me more aware.”

f. “I feel more connected with my body and mind.”

**9. Mental Health**

a. “It has helped ease my depression a lot.”

b. “Feeling very level and have had time to evaluate ways of communication as well as let things go.”

c. “Feeling stronger / at the same time, more residues of past traumas have resurfaced for deeper healing” d. “More calmer overall”

e. “Actually, it has helped ease a certain anxiety and melancholy that I always used to feel when I woke up. Doesn't seem to really be there anymore. Very nice change.”

f. “EESystem has helped me and be able to control those emotions better. This year has been extremely more stressful. We have a lot going on. There’s a lot of changes going on in our lives and I do feel stronger and able to handle it better.”

g. “It's helped me to feel more calm and less anxious and so more willing to act on tasks.”

h. “I feel mentally better when I come out of the EESystem.”

i. “More joy and gratitude”

**B. Quality of Health and Life Survey Question - Individual Responses**

What are some ways that you reached your health vision that you believe that the 52 hours of EESystem sessions of the QWT helped you with?

22 responses, 3 responses with no change, 1 no response recorded

1. “My sprained ankle is no longer hurting or aching. I've felt a deeper connection to my inner spirit.”
2. “Along with added supplements, my cholesterol and (Hgb) A1C is down. “
3. “Deeper connection with self and meditation practice”
4. “The sessions were of great assistance for integrating self care and emotionally processing life changes.” 5. “Greatly improved sleep”
6. “Right now I am feeling well, but this is not every day. It oscillates, as the whole world situation changes, and I find myself quite sensitive, much more than before. I feel quite well at times, and then I may reverse, but I am well today !!!”

7. “It may have helped my meditation practice. I just tested Neg(ative) for Lyme. I am very grateful and surprised about that. I recently found out I have a high methane and hydrogen case of SIBO and in the middle of taking herbs - the EESystem may be helping with die off.”
8. “I noticed a shorter period of inflammation if my inflammation were to be triggered.”
9. “HAIR: Still have some shedding but after each wash of my hair I notice new growth. Seems to grow faster too. EYES: Slight reduction in blurriness most notably when walking down stairs. JAWBONE: Tooth 19 is where I was diagnosed with bone loss. I felt irritation there every now and then and I'd think about it everyday. Only recently did I notice that I've not thought about it for a while because it hasn't been irritated! Hopeful to see bone growth with my next x-ray. RIGHT SHOULDER: Previously had pain & couldn't reach behind my body without pain. Now I'm painfree and am able to do prayer hands behind my back again! RIGHT HIP: Used to have a dull ache. I chalked it up to getting older and it having more wear since my right leg is slightly longer. That ache has been gone! LOWER LEG CRAMPS: These seem to have lessened. LEG SWELLING & PAIN WALKING: Used to experience slight leg swelling and pain after sitting all day at work and on the bus ride home. When I'd walk from the bus stop to the car my ankle area would hurt and that's now gone.”

10.“I have been dealing with a lot of stressful situations and changes in my life, during this time, and I feel I have been able to handle my stress way better. Illness has been rare, but when under the weather it’s been shorter down time.”

11.“I enjoyed lots of elevated energy levels, continued good health and strong constitution, positive attitude and what I perceived as a higher consciousness level. “

12.“I am progressing in my book writing.”

13.“I believe the EESystem sessions helped maintain and improve my health which would have otherwise suffered due to the high amount of stress in my life since January 2024.”

14.“My life has changed enormously since January, all in positive ways. My energy levels have increased and my sleep is much better. My overall health has improved. My vision is clearer and my depression symptoms have almost disappeared. I’ve reduced my anti depression medication from 150 mg per day to 50 mg per day! My pain levels are pretty much zero!! I’m excited and happy about life like never before!!! ( before I felt life was drudgery and exhausting). I have spring in my step and have more pep! I love life!!! “

15.“My energy has been stronger than when starting. I have been having long days at work, and working more of them.”

16.“My overall health and energy levels are good”

17.“better flow, enjoying life, stronger at gym, less anxiety, breathing better”

18.“more peaceful in my day to day life, improvement in vision”

19.“the baths helped me sleep”

20.“Hearing my heart beat in my left ear has lessened and head congestion continues to improve. Graininess and blurry vision associated with allergy seems to be resolved. The sneezing and nose running for hours actually subsided early on in the sessions, before the study. Taking 2/3 less dose of Afrin meds for nasal congestion, same or more chlortrimeton for head congestion, especially after rx to sleep. Stomach bloating and heart burn issues remain mostly resolved with dietary changes as well. Allergy meds I take are working better.”

21.”Although my vision is not where I want it at this time, I am very pleased with the clarity and definition”

22.“I saw a lot of overall improvement physically and mentally.”

### Select Case Outcomes:

A 44-year-old woman with longstanding arthritis-related pain and dysmenorrhea reported pain relief.

A 51-year-old woman with anxiety and panic attacks and a history of multiple emergency-room visits reported no further such visits since the study.

A 56-year-old woman with jaw and head pain reported pain relief and improved emotional and mental health by the end of the study.

A 65-year-old woman with multiple life stressors and PTSD reported feeling calmer and better able to move forward; she attributed this experience to the EESystem sessions.

## Discussion

**Biometric vitals:**

Body Fat Percentage (BFP) measures the actual proportion of fat versus lean mass, offering a more precise picture of body composition compared to the Body Mass Index (BMI) based on height and weight. BMI can misclassify muscular people as overweight and does not show fat distribution, which makes BFP often a better health indicator (16). Weight loss in the study's reported decrease category was noted in 3 participants at 3 months and 6 participants at 6 months. 4 of 6 who lost weight by 6 months were overweight, 2 who lost weight had normal weight based on BMI.

Body-fat percentage decreased in 11 of 26 participants (42.3%) at three months and 15 of 26 (57.7%) at six months under the study's reported classification. Among the 15 with lower six-month readings, the reported mean decrease was 1.7 percentage points. All nine participants with high baseline body-fat percentage had lower readings at six months. One of four participants with low baseline readings moved into the stated average category. These observations do not demonstrate a reduction in future disease events or measured inflammation.

Waist-to-hip ratio decreased in 20 of 26 participants (76.9%) at three months and 17 of 26 (65.4%) at six months. All 11 participants categorized as overweight or obese by baseline BMI had a lower ratio at six months with a mean decrease of 0.09.

Eight participants had elevated blood-pressure readings at baseline. By 3 months, 3 of the 8 had blood pressure readings <140/90 and by 6 months, 4 of the 8 had blood pressure readings <140/90. The remaining 4 individuals with high blood pressure readings did also have a trend for lower blood pressure readings. In the 8 participants with elevated blood pressure, the average decrease in systolic and diastolic blood pressure readings of 28 mmHg and 12 mmHg respectively.

The study recorded changes in body-fat percentage, waist-to-hip ratio, and blood pressure, alongside participant-reported changes in stress which supports potential for improved metabolic health.

### Epigenetic Testing:

OMICmAge and DunedinPACE were used as different epigenetic outcomes: an age estimate and a pace of aging score. OMICmAge as developed through multi-omic and clinical-data research from a collaboration between Dr. Jessica Lasky-Su at Harvard with TruDiagnostics has shown that the OMICmAge clock can predict mortality and age-associated health risks with high accuracy over a 10-year period.

The mean DunedinPACE rate of aging change was slower by −0.11 biological per chronological age at 6 months in 23 participants. Including the participant with Covid-19 infection, the mean changed from 0.9946 to 0.9092 (-0.0854) with the 24 person analysis. This marker strongly predicts all-cause mortality, morbidity, disability, and cognitive decline based on more than 2 decades of data and can be used as an pace of aging-related biomarker.

The telomere-related output was an additional exploratory measure that is considered to have low predictive outcome and is a legacy report for the testing provider.

At baseline, the full 26-person sample was divided equally by whether OMICmAge was below or above chronological age. In the below-chronological-age subgroup, mean biological-age estimate was 63.40 years compared with mean chronological age of 67.12 years, a gap of −3.72 years. In the above-chronological-age subgroup, the corresponding means were 58.92 and 55.45 years, a gap of +3.47 years (Table 5). These full cohort baseline summaries should not be confused with the 23-person complete-case summaries.

The three-month narrative describes all 26 participants with a three-month mean DunedinPACE change of −0.07, with 21 decreased. At the final visit, 21 of the 23 displayed scores decreased and two increased; the overall mean change was −0.11. The mean among the 21 decreases was −0.123, with changes ranging from −0.25 to −0.02.

For OMICmAge itself, the 23-person mean change was −2.90 years, with 18 decreases and five increases. For the OMICmAge–chronological age gap, the mean change was −3.44 years, with 19 decreases and four increases. Among the 13 participants whose estimate exceeded chronological age at baseline in this 23-person subset, nine were below chronological age at follow-up. That subgroup transition is distinct from a decrease in the estimate itself.

Including the participant with recent COVID-19 infection, the mean OMICmAge estimate decreased by 1.46 years and the mean age gap decreased by approximately 2.00 years across 24 participants.

The telomere-related difference involved two of 23 participants, averaging −0.45 years with an observed range of −0.70 to −0.20 and more evaluation with longer EESystem exposure may see more changes in future evaluations.

## Metabolic Testing:

Among participants initially outside the stated intervals, HbA1c was within range in four of 14 at three months and three of 14 at six months. TG/HDL-C ratio was within range in nine of 14 at three months and five of 14 at six months. These findings were not uniformly sustained. The study did not determine whether longer EESystem exposure would produce additional changes, and concurrent lifestyle or treatment changes may have contributed.

All reported hsCRP results were within the study's stated interval at baseline, three months, and six months.

GGT was included only in the Male Wellness panel. Three men were above the stated interval at baseline, and one of those three was within it at three and six months.

By six months, two of 14 participants with elevated total cholesterol, all six with low HDL, three of six with elevated triglycerides, and five of nine with elevated LDL were reported within the applicable laboratory intervals. These are subgroup counts. Participants also described changes in nutrition, exercise, and supplements; the study cannot separate their contributions from EESystem exposure.

Ten women had TSH below the study's stated 1.7–3 µIU/mL interval at baseline. Four were within that interval at three months and six at six months. Two women above the interval remained above it.

Vitamin D levels were low in 4 female participants at baseline with 2 study participants who had normal levels in 3 and 6 months. Vitamin D levels help regulate calcium and phosphorus absorption to build strong bones, support immune function, and maintain muscle health. Vitamin D level was only available in the Female Wellness Panel.

FSH remained above the displayed interval in 17 of 20 women. All of the 20 women participants reported being in perimenopause or menopause which may explain these findings. Three women with baseline estradiol and progesterone below the displayed intervals were reported within range at six months.

One male with low estradiol at baseline had normal levels by 3 months. Estradiol is essential for normal libido and male sexual function, bone strength, and brain health and mood.

2 individuals (1 male, 1 female) with initial low levels of luteinizing hormone (LH) at baseline were normal by 6 months. Luteinizing hormone (LH) stimulates the Leydig cells in the testes to produce testosterone in males. LH in women triggers ovulation, supports early pregnancy and LH tells the theca cells in the ovaries to make testosterone, which nearby cells convert into estrogen. Low levels of LH may be due to stress, malnutrition, obesity, liver disease or exogenous testosterone.

4 male participants had low total testosterone at baseline and 3 males improved to normal levels by 6 months. Total testosterone measures both the hormone attached to proteins (albumin and sex hormone-binding globulin) and the free testosterone in your blood.

5 male participants had low free testosterone at baseline which improved to normal in 3 males at 3 months and in 2 males by 6 months. Free testosterone (1% to 2% of the total) is the active form used by the cells. Normalized SHBG in 1 male that had high SHBG level by 3 and 6 months When SHBG is high, it binds more testosterone, leaving less "free" or bioavailable testosterone for your body to use, leading to low sex drive, erectile dysfunction, fatigue, and loss of muscle mass

Prostate-Specific Antigen or PSA levels in all 6 male participants were normal during each of the 3 test points.

At baseline, eight participants had cortisol below the stated interval; seven of those eight were within it at six months. Five had DHEA-S below the interval; two were within it at three and six months. Four had a low reported cortisol/DHEA-S ratio; one was within the stated interval at three and six months.

### Quality of Health and Life Survey:

Participants reported improvement in each survey domain. The proportions reporting improvement were:

20 of 26 participants (76.9%) reported improved health and energy.

20 of 26 (76.9%) reported improved stress levels.

23 of 26 participants (88.5%) reported improved mental health.

15 of 26 participants (57.7%) reported improved purpose or connection

15 of 26 (57.7%) reported improved mind-body connection.

13 of 26 participants (50%) reported improved resilience

13 of 26 (50%) reported improved exercise.

13 of 26 participants (50%) reported improved sleep.

11 of 26 participants (42.3%) reported improved nutrition.

Participants' written comments described experiences consistent with several of the reported survey categories, including greater energy, calm, and perceived resilience during stressful life events.

While 15 reported improved purpose and connection under the study's classification method, one response was categorized as worse for purpose and connection. No responses were categorized as worse in the other domains.

These observations are self-reported though current post study review of literature validates the utility of using the lifestyle surveys for point of care (15).

## Conclusions

This prospective case series pilot documented changes in epigenetic age estimates, selected biometric and laboratory measurements, and participant-reported well-being during a program involving EESystem sessions, recommended baths, and individualized discussions of test results. The separate OMICmAge estimate and age gap changes are reported as −2.90 and −3.44 years, respectively, based on the 23-person data. Including the participant with recent COVID-19 infection, the mean OMICmAge estimate decreased by 1.46 years and the mean age gap decreased by approximately 2.00 years across 24 participants; the corresponding decreases in the 23-person analysis were 2.90 and 3.44 years.

Research led by Dr. Jessica Lasky-Su at Harvard has shown that the OMICmAge clock can predict mortality and age-associated health risks with high accuracy over a 10-year period. The mean DunedinPACE rate of aging change was slower by −0.11 biological per chronological age at 6 months with the 23-person data and was slower by -0.0854 biological per chronological age at 6 months in the 24-person data; this marker strongly predicts all-cause mortality, morbidity, disability, and cognitive decline based on more than 2 decades of data (10,12).

This pilot case series study was an initial exploration as seen in other lifestyle intervention research studies and was not designed to have a control group and blinding. There was minimal lifestyle recommendations based on individual laboratory changes. Limitations did include incomplete epigenetic data, and a post hoc exclusion. Together, these factors limit any inference of causation of the observations specifically to EESystem.

Quality of Health and Life surveys in this study reported multiple participant-reported improvements during the program including increased energy, health, improved mental health and resilience using this study's author-classified survey method. These findings support the potential for EESystem to support health and life changes in a positive direction that may correlate with many clinical case reports and individual testimonies over the last 3 decades (2-8).

These preliminary findings support further investigation with prespecified outcomes and an appropriately controlled design. A randomized, sham-controlled trial, with feasible blinding and clearly recorded exposure and co-interventions, could test whether the observed differences are reproducible. More research is needed to explore the benefits of scalar energy such as in the EESystem (17).

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She is a listed provider for TruDiagnostic and Choose Health companies but does not have any significant financial ownership in the two companies.

The Quantum Wellness Transformation: Epigenetic, Metabolic, Quality of Health and Life Effects from a 24 unit Energy Enhancement System with the preliminary 6 month data analysis was presented at the American Academy of Anti-Aging Medicine LongevityFest on December 15, 2024 in Las Vegas.

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# Appendix A. Paired Epigenetic Data for OMICmAge and DunedinPACE

**Table A1a. Chronological age, OMICmAge, and distinct paired changes (years) – 23 participants**

| ID | Chronological age: baseline | Chronological age: final | OMICmAge: baseline | OMICmAge: final | Age gap: baseline | Age gap: final | Change in OMICmAge | Change in age gap |
|---|---|---|---|---|---|---|---|---|
| 1 | 54.55 | 55.05 | 56.55 | 52.52 | 2.00 | −2.53 | −4.03 | −4.53 |
| 2 | 55.98 | 56.46 | 59.37 | 57.47 | 3.39 | 1.01 | −1.90 | −2.38 |
| 3 | 74.77 | 75.33 | 73.89 | 74.68 | −0.88 | −0.65 | 0.79 | 0.23 |
| 4 | 61.68 | 62.31 | 63.43 | 58.61 | 1.75 | −3.70 | −4.82 | −5.45 |
| 5 | 70.55 | 71.05 | 65.70 | 70.47 | −4.85 | −0.58 | 4.77 | 4.27 |
| 6 | 75.44 | 76.25 | 73.04 | 72.98 | −2.40 | −3.27 | −0.06 | −0.87 |
| 7 | 41.20 | 41.74 | 47.58 | 38.52 | 6.38 | −3.22 | −9.06 | −9.60 |
| 8 | 62.87 | 63.37 | 63.08 | 60.79 | 0.21 | −2.58 | −2.29 | −2.79 |
| 9 | 73.20 | 73.70 | 77.22 | 77.23 | 4.02 | 3.53 | 0.01 | −0.49 |
| 11 | 43.93 | 44.45 | 48.74 | 45.21 | 4.81 | 0.76 | −3.53 | −4.05 |
| 12 | 43.93 | 44.45 | 51.08 | 35.91 | 7.15 | −8.54 | −15.17 | −15.69 |
| 14 | 43.62 | 44.13 | 45.09 | 38.83 | 1.47 | −5.30 | −6.26 | −6.77 |
| 15 | 72.21 | 72.71 | 67.03 | 65.94 | −5.18 | −6.77 | −1.09 | −1.59 |
| 16 | 67.23 | 67.76 | 71.78 | 68.80 | 4.55 | 1.04 | −2.98 | −3.51 |
| 18 | 54.84 | 55.34 | 56.19 | 55.24 | 1.35 | −0.10 | −0.95 | −1.45 |
| 19 | 64.81 | 65.31 | 66.73 | 64.73 | 1.92 | −0.58 | −2.00 | −2.50 |
| 20 | 57.90 | 58.39 | 55.38 | 46.88 | −2.52 | −11.51 | −8.50 | −8.99 |
| 21 | 70.23 | 70.75 | 58.88 | 56.46 | −11.35 | −14.29 | −2.42 | −2.94 |
| 22 | 74.16 | 74.84 | 69.70 | 71.02 | −4.46 | −3.82 | 1.32 | 0.64 |
| 23 | 73.88 | 74.54 | 65.91 | 70.43 | −7.97 | −4.11 | 4.52 | 3.86 |
| 24 | 53.24 | 53.69 | 52.01 | 50.11 | −1.23 | −3.58 | −1.90 | −2.35 |
| 25 | 52.96 | 53.45 | 59.11 | 53.22 | 6.15 | −0.23 | −5.89 | −6.38 |
| 26 | 51.43 | 51.89 | 50.63 | 45.36 | −0.80 | −6.53 | −5.27 | −5.73 |
| Mean | 60.64 | 61.17 | 60.79 | 57.89 | +0.15 | −3.28 | −2.90 | −3.44 |

Two participants lacked processable final specimens, and one was excluded after recent COVID-19 infection.

**Table A1b. Chronological age, OMICmAge, and distinct paired changes (years) – 24 participants – including participant with COVID**

| ID | Chronological age: baseline | Chronological age: final | OMICmAge: baseline | OMICmAge: final | Age gap: baseline | Age gap: final | Change in OMICmAge | Change in age gap |
|---|---|---|---|---|---|---|---|---|
| 1 | 54.55 | 55.05 | 56.55 | 52.52 | 2.00 | −2.53 | −4.03 | −4.53 |
| 2 | 55.98 | 56.46 | 59.37 | 57.47 | 3.39 | 1.01 | −1.90 | −2.38 |
| 3 | 74.77 | 75.33 | 73.89 | 74.68 | −0.88 | −0.65 | 0.79 | 0.23 |
| 4 | 61.68 | 62.31 | 63.43 | 58.61 | 1.75 | −3.70 | −4.82 | −5.45 |
| 5 | 70.55 | 71.05 | 65.70 | 70.47 | −4.85 | −0.58 | 4.77 | 4.27 |
| 6 | 75.44 | 76.25 | 73.04 | 72.98 | −2.40 | −3.27 | −0.06 | −0.87 |
| 7 | 41.20 | 41.74 | 47.58 | 38.52 | 6.38 | −3.22 | −9.06 | −9.60 |
| 8 | 62.87 | 63.37 | 63.08 | 60.79 | 0.21 | −2.58 | −2.29 | −2.79 |
| 9 | 73.20 | 73.70 | 77.22 | 77.23 | 4.02 | 3.53 | 0.01 | −0.49 |
| 11 | 43.93 | 44.45 | 48.74 | 45.21 | 4.81 | 0.76 | −3.53 | −4.05 |
| 12 | 43.93 | 44.45 | 51.08 | 35.91 | 7.15 | −8.54 | −15.17 | −15.69 |
| 14 | 43.62 | 44.13 | 45.09 | 38.83 | 1.47 | −5.30 | −6.26 | −6.77 |
| 15 | 72.21 | 72.71 | 67.03 | 65.94 | −5.18 | −6.77 | −1.09 | −1.59 |
| 16 | 67.23 | 67.76 | 71.78 | 68.80 | 4.55 | 1.04 | −2.98 | −3.51 |
| 17 | 55.06 | 55.60 | 54.21 | 85.93 | -0.85 | 30.33 | 31.72 | 31.18 |
| 18 | 54.84 | 55.34 | 56.19 | 55.24 | 1.35 | −0.10 | −0.95 | −1.45 |
| 19 | 64.81 | 65.31 | 66.73 | 64.73 | 1.92 | −0.58 | −2.00 | −2.50 |
| 20 | 57.90 | 58.39 | 55.38 | 46.88 | −2.52 | −11.51 | −8.50 | −8.99 |
| 21 | 70.23 | 70.75 | 58.88 | 56.46 | −11.35 | −14.29 | −2.42 | −2.94 |
| 22 | 74.16 | 74.84 | 69.70 | 71.02 | −4.46 | −3.82 | 1.32 | 0.64 |
| 23 | 73.88 | 74.54 | 65.91 | 70.43 | −7.97 | −4.11 | 4.52 | 3.86 |
| 24 | 53.24 | 53.69 | 52.01 | 50.11 | −1.23 | −3.58 | −1.90 | −2.35 |
| 25 | 52.96 | 53.45 | 59.11 | 53.22 | 6.15 | −0.23 | −5.89 | −6.38 |
| 26 | 51.43 | 51.89 | 50.63 | 45.36 | −0.80 | −6.53 | −5.27 | −5.73 |
| Mean | 60.40 | 60.94 | 60.51 | 59.06 | 0.11 | -1.88 | -1.46 | -2.00 |

Two participants lacked processable final specimens

## Table A2a. DunedinPACE scores and paired changes at three months and the final visit

Original data with paired score differences. The mean three-month paired change is calculated for 26 participants, mean final calculation for 23 participants

| ID | Chronological age: 3 months | DunedinPACE: baseline | DunedinPACE: 3 months | DunedinPACE: final | Score change: 3 months – baseline | Score change: final – baseline |
|---|---|---|---|---|---|---|
| 1 | 54.84 | 0.98 | 0.87 | 0.89 | −0.11 | −0.09 |
| 2 | 56.26 | 1.12 | 1.06 | 1.04 | −0.06 | −0.08 |
| 3 | 75.06 | 1.03 | 0.96 | 0.96 | −0.07 | −0.07 |
| 4 | 61.97 | 0.96 | 0.93 | 0.82 | −0.03 | −0.14 |
| 5 | 70.80 | 1.14 | 1.10 | 1.16 | −0.04 | 0.02 |
| 6 | 75.72 | 1.12 | 1.07 | 0.99 | −0.05 | −0.13 |
| 7 | 41.47 | 1.00 | 0.92 | 0.88 | −0.08 | −0.12 |
| 8 | 63.08 | 1.05 | 0.96 | 0.88 | −0.09 | −0.17 |
| 9 | 73.48 | 0.93 | 0.99 | 0.91 | 0.06 | −0.02 |
| 10 | 67.28 | 1.07 | 0.84 | N/A | -0.23 | N/A |
| 11 | 44.22 | 0.99 | 0.87 | 0.74 | −0.12 | −0.25 |
| 12 | 44.22 | 0.95 | 0.88 | 0.91 | −0.07 | −0.04 |
| 13 | 76.42 | 0.91 | 1.25 | N/A | 0.34 | N/A |
| 14 | 43.90 | 0.94 | 0.83 | 0.84 | −0.11 | −0.10 |
| 15 | 72.51 | 0.78 | 0.68 | 0.62 | −0.10 | −0.16 |
| 16 | 67.50 | 0.95 | 1.01 | 0.91 | 0.06 | −0.04 |
| 17 | 55.34 | 1.04 | 0.90 | N/A | -0.14 | N/A |
| 18 | 55.12 | 1.08 | 0.85 | 0.83 | −0.23 | −0.25 |
| 19 | 65.10 | 1.15 | 0.91 | 1.00 | −0.24 | −0.15 |
| 20 | 58.18 | 0.98 | 0.83 | 0.77 | −0.15 | −0.21 |
| 21 | 70.49 | 0.88 | 0.83 | 0.77 | −0.05 | −0.11 |
| 22 | 74.43 | 0.93 | 0.98 | 0.96 | 0.05 | 0.03 |
| 23 | 74.17 | 1.06 | 0.88 | 0.91 | −0.18 | −0.15 |
| 24 | 53.48 | 1.01 | 1.04 | 0.96 | 0.03 | −0.05 |
| 25 | 53.21 | 0.88 | 0.67 | 0.80 | −0.21 | −0.08 |
| 26 | 51.68 | 0.92 | 0.88 | 0.75 | −0.04 | −0.17 |
| Mean | 61.54 | 0.99 | 0.92 | 0.88 | −0.07 | −0.11 |

N/A: Two participants lacked processable final specimens, and one was available but was excluded after recent COVID-19 infection.

### Table A2b. DunedinPACE scores and paired changes at three months and the final visit

Original data with paired score differences. The mean three-month paired change is calculated for 26 participants, mean final calculation for 24 participants

| ID | Chronological age: 3 months | DunedinPACE: baseline | DunedinPACE: 3 months | DunedinPACE: final | Score change: 3 months − baseline | Score change: final − baseline |
|---|---|---|---|---|---|---|
| 1 | 54.84 | 0.98 | 0.87 | 0.89 | −0.11 | −0.09 |
| 2 | 56.26 | 1.12 | 1.06 | 1.04 | −0.06 | −0.08 |
| 3 | 75.06 | 1.03 | 0.96 | 0.96 | −0.07 | −0.07 |
| 4 | 61.97 | 0.96 | 0.93 | 0.82 | −0.03 | −0.14 |
| 5 | 70.80 | 1.14 | 1.10 | 1.16 | −0.04 | 0.02 |
| 6 | 75.72 | 1.12 | 1.07 | 0.99 | −0.05 | −0.13 |
| 7 | 41.47 | 1.00 | 0.92 | 0.88 | −0.08 | −0.12 |
| 8 | 63.08 | 1.05 | 0.96 | 0.88 | −0.09 | −0.17 |
| 9 | 73.48 | 0.93 | 0.99 | 0.91 | 0.06 | −0.02 |
| 10 | 67.28 | 1.07 | 0.84 | N/A | -0.23 | N/A |
| 11 | 44.22 | 0.99 | 0.87 | 0.74 | −0.12 | −0.25 |
| 12 | 44.22 | 0.95 | 0.88 | 0.91 | −0.07 | −0.04 |
| 13 | 76.42 | 0.91 | 1.25 | N/A | 0.34 | N/A |
| 14 | 43.90 | 0.94 | 0.83 | 0.84 | −0.11 | −0.10 |
| 15 | 72.51 | 0.78 | 0.68 | 0.62 | −0.10 | −0.16 |
| 16 | 67.50 | 0.95 | 1.01 | 0.91 | 0.06 | −0.04 |
| 17 | 55.34 | 1.04 | 0.90 | 1.52 | -0.14 | 0.48 |
| 18 | 55.12 | 1.08 | 0.85 | 0.83 | −0.23 | −0.25 |
| 19 | 65.10 | 1.15 | 0.91 | 1.00 | −0.24 | −0.15 |
| 20 | 58.18 | 0.98 | 0.83 | 0.77 | −0.15 | −0.21 |
| 21 | 70.49 | 0.88 | 0.83 | 0.77 | −0.05 | −0.11 |
| 22 | 74.43 | 0.93 | 0.98 | 0.96 | 0.05 | 0.03 |
| 23 | 74.17 | 1.06 | 0.88 | 0.91 | −0.18 | −0.15 |
| 24 | 53.48 | 1.01 | 1.04 | 0.96 | 0.03 | −0.05 |
| 25 | 53.21 | 0.88 | 0.67 | 0.80 | −0.21 | −0.08 |
| 26 | 51.68 | 0.92 | 0.88 | 0.75 | −0.04 | −0.17 |
| Mean | 61.54 | 0.9946 | 0.92 | 0.9092 | −0.07 | -0.0854 |

N/A: Two participants lacked processable final specimens

# Appendix B. Quality of Health and Life Survey

The following table reproduces the supplied questionnaire wording and administration indicators. An “x” marks administration at the stated time. Wording such as “52 EES sessions” refers to 52 hours, as clarified in the source.

https://forms.gle/UxidtfsXajexHMrE7

| QWT Quality of Health and Life Survey Interval * Survey responses in Table 21 | Baseline | 6 months |
|---|---|---|
| Name | x | x |
| Date of Birth (MM/DD/YEAR) | x | x |
| What is the ideal vision of your health for the coming 6 months? | x | |
| Describe your current state of health? | x | x |
| What are your intentions for your health during the QWT program? | x | |
| What motivates you to have these intentions for your health? | x | |
| Please rate your level of motivation for your intentions. very low, 0 to 10, excellent | x | |
| Rate your current level of health? very poor, 0 to 10, excellent | x | x |
| Rate your goal for the level of health you would like to have in 6 months. very poor, 0 to 10, excellent | x | |
| Rate the motivation for your goal for the level of health you would like to have in 6 months. | x | |
| Rate your current level of energy now very low, 0 to 10, excellent | x | x |
| Rate your goal for the level of energy you would like to have in 6 months. very low, 0 to 10, excellent | x | |
| *How has 52 hr EES sessions changed your health and energy? | | x |
| Please estimate the total number of EES session hours outside of Wellness Visions center prior to January 14, 2024 and the number of EES units. e.g. 2 hours in an 8 unit EES | x | |
| What health conditions are active for you now? | x | x |
| What medications are you taking currently? | x | x |
| What supplements are you taking currently? | x | x |
| What practitioners and other modalities of treatment are you using for your current active health conditions? | x | x |
| Do you have any other health or energy level concerns? | x | x |
| Sleep | x | x |
| *Rate your current quality of sleep? very poor, 0 to 10, excellent | x | x |
| Rate your goal for the level of energy you would like to have in 6 months. very poor, 0 to 10, excellent | x | |
| How has the 52 hr EES sessions impacted on your sleep? | | x |

| QWT Quality of Health and Life Survey Interval * Survey responses in Table 21 | Baseline | 6 months |
|---|---|---|
| OVER THE LAST TWO WEEKS, how many hours of sleep did you average in a 24-hour period? | x | x |
| OVER THE LAST TWO WEEKS, how often did you feel tired or have difficulty staying awake during routine tasks in the day? | x | x |
| Do you have any sleep issues or concerns? | x | x |
| **Nutrition** | | |
| *Rate the current quality of your nutrition? very poor, 0 to 10, excellent | x | x |

| | | |
|---|---|---|
| How has the 52 EES sessions impacted on your nutrition or weight? | | x |
| **Nutrition** | | |
| Describe what your current nutrition plan is. e.g. gluten free, low carb, Mediterranean, Paleo, vegetarian, vegan, etc. | x | x |
| Rate the quality of nutrition you would like to have in 6 months. | x | |
| OVER THE LAST TWO WEEKS, how often have you eaten fast food, sugary drinks (e.g., soda, sports drinks, juice) or packaged foods (e.g., chips, candy, crackers, cookies)? | x | x |
| OVER THE LAST TWO WEEKS, how often have you eaten processed meats (e.g., sausage, hot dogs, salami, bacon)? | x | x |
| ON AN AVERAGE DAY, how many servings of whole fruits and vegetables do you eat (1 serving is about a handful and does not include fruits juice)? | x | x |
| On average, do you drink at least 8 glasses of water per day? | x | x |
| On average, how many cups (8 oz.) of caffeinated beverages do you drink per day (tea, soda, coffee, or energy drinks)? | x | x |
| On average, how many servings of alcohol do you drink per day? | x | x |
| On average, how many cups (8 oz.) of sugary drinks (soda, sports drinks, juice) do you drink per day? | x | x |
| On average, how often do you snack on convenience or junk food per day? (i.e. chips, candy, granola bars, crackers, cookies, etc.) | x | x |
| On average, how many meals do you buy from a restaurant or fast food per week? | x | x |
| On average, do you have 5 handfuls of nuts per week? | x | x |
| Do you add salt to most of your meals? | x | x |
| Describe what you had to eat for the past 24 hours and the time of day. Breakfast, Lunch, Dinner, Snacks, Drinks and Beverages | x | x |
| Do you intend to change your nutrition and hydration in the next 6 months? If so, what are you planning on changing? | x | x |
| Do you have any nutrition or hydration concerns? | x | x |

| QWT Quality of Health and Life Survey Interval * Survey responses in Table 21 | Baseline | 6 months |
|---|---|---|
| **Weight** | | |
| What do you think about your current weight? | x | x |
| Are you following a particular plan to change your weight now? If you are, what are you planning to change specifically? | x | x |
| **Exercise** | | |
| During the average week, how many days do you exercise at a moderate to strenuous intensity? (i.e. brisk walking or enough to break a light sweat)? | x | x |
| During an average session, how many minutes do you exercise at a moderate to strenuous intensity (i.e. brisk walking or enough movement to break a light sweat)? | x | x |
| List types of aerobic activities you do (i.e. walking, jogging, swimming, bicycling, dancing, etc.) | x | x |
| During the average week, how many days do you do strength/resistance training? | x | x |
| How many minutes do you exercise with strength/resistance training? | x | x |
| List types of aerobic activities you do (i.e. weightlifting, Pilates, kettle ball, resistance machines, exercise bands, etc.) | x | x |
| *Rate your current level of exercise. very poor, 0 to 10, excellent | x | x |
| How has the 52 EES hr sessions impacted on your exercise regime or ability to exercise? | | x |
| Rate the exercise level you would like to have in 6 months. very poor, 0 to 10, excellent | x | |
| Are you following a particular plan to change your exercise now? If you are, what are you planning to change specifically? | x | x |
| Do you have any exercise issues or concerns? | x | x |
| **Purpose and Connection 1 Never 2 Seldom 3 Sometimes 4 Often 5 Always** | | |
| I feel very connected with myself such that I know my strengths and challenges and things that I like or dislike about my life. | x | x |
| I live a purposeful and meaningful life. | x | x |
| I feel connected to God or Creator or a higher being. | x | x |
| I have a spiritual community that I can turn to in times of need. | x | x |
| I have a source of inner strength and meaning. | x | x |
| I am satisfied with my current belief system. | x | x |
| I have people who care about what happens to me. | x | x |
| I have people who accept me at my worst and best. | x | x |
| I have people I trust at home or work who I can talk to about my problems. | x | x |

| QWT Quality of Health and Life Survey Interval * Survey responses in Table 21 | Baseline | 6 months |
|---|---|---|
| I get help when I'm sick. | x | x |
| Do you have any issues with your purpose or connection? | x | x |
| *How has the 52 EES sessions impacted on your purpose or connection? | | x |
| **Mental Health 1 Never 2 Seldom 3 Sometimes 4 Often 5 Always** | | |
| What is your level of stress in the past 2 weeks? | x | x |
| How often have you felt that you were unable to control the important things in your life? | x | x |
| How often have you felt lack of confidence about your ability to handle your personal problems? | x | x |
| How often have you felt that things were not going your way? | x | x |
| How often have you found it hard to let go of the things that upset you? | x | x |
| How do you COPE with stress? | x | x |
| *How has the 52 EES sessions impacted on your stress level? | | x |
| **Resilience: When I am under extreme stress: 1 Never 2 Seldom 3 Sometimes 4 Often 5 Always** | | |
| I find a way to learn from my experience. | x | x |
| I find a way to take action. | x | x |
| I find it easy to prioritize what is important in my life. | x | x |
| I look at a stressful situation as an opportunity to grow. | x | x |
| I meet the goals I set for myself. | x | x |
| I believe that there are a lot of ways around a problem. | x | x |
| I feel motivated to pursue my goals. | x | x |
| I know I can get through it. | x | x |
| *How has the 52 EES sessions impacted on your resilience? | | x |
| Please share any concerns you may have about any stressors in your life. | x | x |
| **Mind-Body Connection** | | |
| I meet the goals I set for myself. | x | x |
| Do thoughts or feelings affect your physical health? | x | x |
| Could you be experiencing some emotion and not be aware of it? | x | x |
| Are you aware of tension in your body? | x | x |
| Do you notice how your body changes when angry? | x | x |

| QWT Quality of Health and Life Survey Interval * Survey responses in Table 21 | Baseline | 6 months |
|---|---|---|
| Do you notice stress in your body? | x | x |
| Do you notice how your body reacts to emotions? | x | x |
| *How has the 52 EES sessions impacted on your mind-body connection? | | x |
| Do you have any mind-body issues or concerns? | x | x |
| **Mental Health In the past 2 weeks, how often have you..** | | |
| **0 Not at all 1 Several days 2 More than half the days 3 Nearly every day** | | |
| Been bothered by feeling down, depressed or hopeless? | x | x |
| Been bothered by feeling nervous, anxious or on edge? | x | x |
| Been bothered by worrying too much about different things? | x | x |
| *How has the 52 EES sessions impacted on your mental health? | | x |
| Do you have any mental health issues or concerns? | x | x |
| **Tobacco and Substance Use** | | |
| Have you used any Nicotine (cigarettes, e-cigarettes/vaping, cigars) products? | x | x |
| If you are using Nicotine (cigarettes, e-cigarettes/vaping, cigars), how many do you usually use a day. Do you have any concerns about the use? | x | x |
| Are you using any Alcohol (beer, wine liquor) on a regular basis? | x | x |
| If you are using Alcohol (beer, wine liquor), how much do you usually have a day. Do you have any concerns about the use? | x | x |
| Have you used any Marijuana? | x | x |
| If you are using Marijuana, how much do you use usually in a day. Do you have any concerns about the use? | x | x |
| Have you used any Recreational Drugs (cocaine, heroin, meth, etc.)? | x | x |
| If you are using Recreational Drugs (cocaine, heroin, meth, etc.), how much do you use usually in a day. Do you have any concerns about the use? | x | x |
| How has the 52 EES sessions impacted on your use of alcohol, tobacco or any other substances? | | x |
| If you are using any of the above substances, are you following a particular plan to change your habits now? If you are, what are you planning to change specifically? | x | x |

Note: The original survey wording uses variants of “52 EES sessions.” As clarified in the source, these refer to 52 hours of EESystem time, not 52 separate sessions. Original question wording and administration indicators have been preserved.

*Indicates the survey questions outlined in Table 21.

**Biography:** Jennie Hsu, MD, FACP, earned her medical degree at the University of California, San Francisco, and her bachelor's degree with honors at the University of California, Berkeley. She completed internal medicine residency at the University of Illinois at Urbana-Champaign. As listed in Appendix C, her obesity-medicine and lifestyle-medicine board certifications are active, and her 20 years of internal-medicine board certification is inactive. She is a former Clinical Associate Professor at the University of Illinois and founder of Wellness Visions in Richmond, California. See Appendix C for her CV and certification dates.

**Dr. Jennie Hsu Contact information:**

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Phone Number: 510-982-1264 cell

**Social Media Links:**

Facebook: https://www.facebook.com/wellnessvisions/

Instagram: https://www.instagram.com/wellness.visions/

LinkedIn: http://linkedin.com/in/jennie-hsu-md-61567996

YouTube: https://youtube.com/channel/UCIZ-h5Z1zFU5Sdz799sWuvg

# Appendix C. Dr. Jennie Hsu Curriculum Vitae

## Education:

University of California, Berkeley A.B. with Honors in Molecular and Cell Biology, Emphasis in Neurobiology awarded August 1991

University of California, San Francisco, School of Medicine, M.D. awarded December 1998

Internal Medicine Residency Program, University of Illinois College of Medicine at Urbana-Champaign, completed July 2003

## Medical License, Current:

State of California, License Number: C185660, https://search.dca.ca.gov License Issue Date: 04/19/2023, Expiration Date: 04/30/2027

## Certification:

American Board of Internal Medicine, August 2003 to 2023, currently inactive

Wellcoaches Health and Wellness Certification. April 2019 to 2025, currently inactive

American Board of Obesity Medicine, May 2019 to 2029, currently active

American Board of Lifestyle Medicine, November 2019 to 2029, currently active

Neurolinguistic Programming Master Practitioner, Hypnotherapist, Life Coach, completed July 2022, Yager Training, Austin TX, currently active

## Academic Appointments, Past:

Clinical Associate Professor Carle Illinois College of Medicine at Urbana- Champaign May 2017 to August 2021

Clinical Associate Professor Department of Medicine University of Illinois College of Medicine at Urbana Champaign August 2017 to August 2021

Adjunct Associate Professor Division of Nutritional Sciences University of Illinois at Urbana Champaign November 2019 to August 2021

Clinical Assistant Professor, University of Illinois College of Medicine at Urbana-Champaign August 2003 to April 2017

Clinical Instructor, University of Illinois College of Medicine at Urbana-Champaign August 2000 to 2003

## Publications:

B. Roseman, A. Bollen, J. Hsu, K. Lamborn, and M.A. Israel, Annexin II marks astrocytic brain tumors of high histologic grade, Oncology Research, 6(12): 561-567, 1994.

A. Iavarone, P. Garg, J. Hsu, and M.A. Israel, The helix-loop-helix Id-2 enhances cell proliferation and binds to the retinoblastoma protein, Genes & Development, 8: 1270-1284, 1994.

D. Haas-Kogan, S. Kogan, G. Yount, J. Hsu, M. Haas, D. Deen, and M.A. Israel, p53 function influences the effect of fractionated radiotherapy on glioblastoma tumors, International Journal of Radiation Oncology, Biology, & Physics, 43(2): 399-403, 1999.

Q. Cheng, J. Juen, J. Hsu-Lumetta, B. Schatz (2015) Predicting Transitions in Oxygen Saturation using Phone Sensors, Telemedicine and e-Health, an official journal of the American Telemedicine Society, 22(2):132-137, open access online at http://online.liebertpub.com/doi/full/10.1089/tmj.2015.0040

M. Lee, A. Shaffer, N. Alfouzan, C. Applegate, J. Hsu, J. Erdman, M. Nakamura. Successful dietary changes correlate with weight-loss outcomes in a new dietary weight-loss program. Obes Sci Pract. 2024;10(3):e764. Published 2024 May 27. doi:10.1002/osp4.764

Dr. Jennie Hsu earned her bachelor's degree with honors in Molecular and Cell Biology, with an emphasis in Neurobiology, from the University of California, Berkeley in 1991, and her medical degree from the University of California, San Francisco in 1998. She completed internal medicine residency at the University of Illinois at Urbana-Champaign in 2003. She has active board certifications in obesity medicine and lifestyle medicine, and a prior 20 year certification in internal medicine. She previously served as a primary-care physician and Clinical Associate Professor. She currently practices as a lifestyle medicine physician, Neurolinguistic Programming Master Practitioner, hypnotherapist, and master wellness and life coach. She founded Wellness Visions in 2023. She has published basic-science and clinical research in nutrition, weight management, oncology, and health-related technology.

10-23-26 2024 QWT Study, Version 11 JCH

**Publication Status and Invitation for Scientific Review**

This manuscript is shared as a **non-peer-reviewed preprint** to support scientific discussion, transparency, and independent critical evaluation. It presents preliminary descriptive findings from a prospective pilot case series and has not been accepted for publication in a peer-reviewed journal.

The author welcomes independent methodological, statistical, and subject-matter review. The manuscript may be revised in response to scientific feedback and submitted for consideration by a peer-reviewed journal. Any subsequent submission will disclose this public release and relevant earlier versions. If a peer-reviewed article is subsequently published, a citation and link to that article will be added to the public posting.

The findings should be interpreted within the study's stated limitations. They do not establish that EESystem caused the observed changes, reversed aging, reduced disease incidence, or extended lifespan. Readers citing this manuscript should identify it as a preprint and include its version number and date.