

Longevity Clinics and Services in London

Teaser

Q3 2021

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This analytical case study provides a **comprehensive overview of the Longevity Clinics and Additional Longevity Services in London.**

Considering the complexity of the Longevity Industry, this report enlightens the modern understanding of ageing and biomarkers that define ageing factors. In order to help humanity reach maximum Longevity, nowadays medicine has established a relatively new branch - Longevity Medicine. Longevity Medicine is a Smart Precision Medicine based on Longevity Biomarkers that serves to prolong active longevity and maintain optimal functioning of the body throughout life. Therefore Longevity Medicine is personalised by nature. **Longevity Clinics and Services in London Q3 2021** mainly focuses on an **in-depth analysis of the Top-10 Longevity Clinics in London** and exhibits a **detailed SWOT analysis of Longevity Check-Up diagnostic services proposed by these clinics.** The separate chapter of the report is devoted to the overview of a recommended set of **additional longevity services that are established as an alternative for Longevity Clinics.** The Longevity Check-Up approaches are characterised by **precise diagnostic methods, personalisation, selection of individual health plans, and preventive means suitable for the body's biochemical, physiological, and genetic characteristics.**

This analytical case study contains valuable and practical information, describing the most up-to-date longevity services, techniques, and diagnostics that are being implemented into Longevity Medicine these days. **Thus it can help choose the optimal solution that best suits a patient's needs, health, geographic location, and financial status.**

Approach of the Report

Database

10

Longevity Clinics

45

Additional Longevity Services

The database was formed based on:

- the **identification of Longevity Clinics** which offer a full set of services for prolong life (according to a specially developed methodology)
- the **determination of additional longevity services** in hospitals, clinics, diagnostics centres, laboratories which offer the same facilities as Longevity Clinics, but not in a package

Applied Research and Analytics Methods

Descriptive Analysis

Mixed Data Research

SWOT Analysis

Comparative Analysis

Qualitative Data Collection

Data Filtering

Data Sources

Media Overview
(Articles and Press Releases)

Industry-Specialised Databases

Publicly Available Sources
(Websites)

Industry Reports and Reviews

Relying on various research methods and analytics techniques, the analytical provides practical recommendation for the Longevity Check-Up in London. This approach has certain limitations, especially when using publicly available data sources and conducting secondary research. Aging Analytics Agency is not responsible for the quality of the secondary data presented herein; however, we do our best to eliminate the said risks using different analytics techniques and cross-checking data. Please note that we did not deliberately exclude certain companies from our analysis. Nor was it due to the data-filtering method used or difficulties encountered. The main reason for their non-inclusion was incomplete or missing information in the available sources.

Approach of the Report

To evaluate the top **Longevity Clinics** and choose the most prominent ones, was developed a framework **with 6 overarching parameters**:

General Characteristics



This parameter allows to analyse a basic information about the clinics' history, their location, media representation and level of regulation

Science Activity



This parameter allows to analyse clinics' scientific achievements and intellectual property

Marketing



This parameter allows to analyse marketing strategies, activities, methods and platforms longevity clinics tend to use to attract and communicate with patients

Team Composition



This parameter allows to analyse the variety of doctors and staff who can help patients to solve their medical issues.

Services



This parameter allows to analyse and compare the versatility of longevity clinics

Prices



This parameter allows to compare prices for longevity clinics' services

Overall **performance** within each criteria category was taken into account to choose the **leading Longevity Clinics**.

Executive Summary

Longevity Clinics

London's leading integrative medicine clinic & testing facilities are mostly located in the heart of London with the majority of them concentrated on Harley Street. What makes these clinics stand out is the range of longevity services and executive health assessment programs. **These services include Full blood test, Treatment of different condition, Pain management, Aesthetics, Vein Clinic, Weight loss Clinic, Private GP, Anti-aging & Longevity, Fertility clinic, Physiotherapy.**

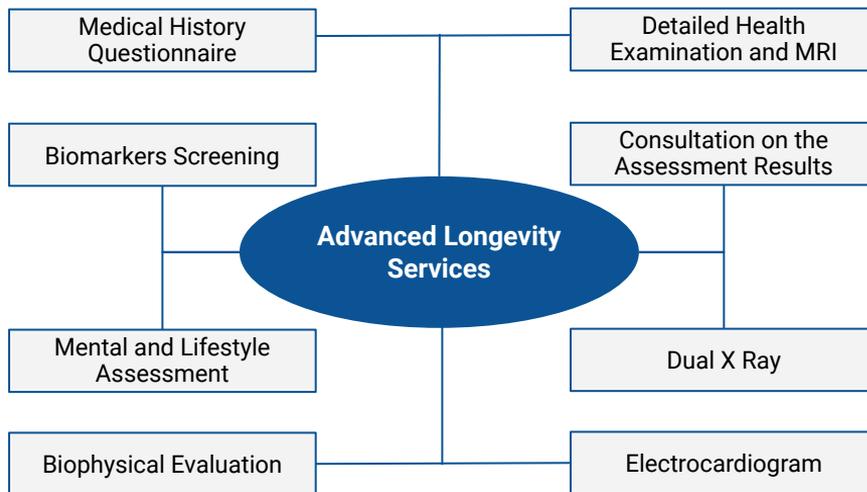
Programs are state of the art genetic and cellular level treatments designed to prolong life and maximize vitality. These include a range of testing and specific screening aimed at prolonging life, health and wellbeing, as well as anti-aging, aesthetic beauty and skin and organic health.

Longevity clinics thoroughly assess the existing conditions and lifestyles of their patients. These assessments help the clinics to create personalized health programs, nutrition plans, and lifestyle advice tailored specifically to the patients' needs.

The **Longevity Clinics and Services in London** report provides information about the prices of services available at top-tier longevity clinics in London, as well as offers alternative options for select Longevity Check-Up services at other clinics, laboratories, and diagnostic centers. The advantages of such additional Longevity Services range from the geographical benefits and costs to preferences and trust patients are putting into more familiar clinics.

Advanced Longevity Services

While the Longevity Medicine field is still developing, the advanced services presented in private clinics and hospitals help to introduce this innovative type of medical care to the people. Since **Longevity Medicine** targets people who most likely already have a preference for the specific medical establishments, the introduction of **Advanced Longevity Services** in the hospitals that have already earned the trust of their patients over the years is the best way to provide advanced **anti-ageing** care for the elderly.



List of Longevity Clinics*

1	Echelon Health
2	Health Optimising
3	Human Health
4	Kuer Clinic
5	London Center for Longevity and Metabolic Health
6	London Integrated Health
7	Medical Express Clinic
8	One5 Health
9	Paar London
10	Wellgevity

*in alphabetical order as for Q3 2021

Longevity Industry Overview

Longevity has become a major focus of some of the largest financial institutions in the world, with many major institutional investors seeking opportunities to contribute to the development of the Longevity industry by investing in AgeTech, Longevity Fintech, Longevity Biomedical companies, and startups. Aging has become more than a challenge at the intersection of many of the most acute problems of our time - it also presents one of **the most promising opportunities**.



“The one billion retired people globally are a multi-trillion dollar opportunity for business”.

~ Dmitry Kaminskiy, interview in the Financial Times



“The global spending power of those aged 60 and over will reach \$15 trillion annually by 2020”.

~ Bank of America Merrill Lynch



The Hallmarks of Ageing

1. Genomic Instability

Aging can be the consequence of increased DNA damage accumulation. This is due to physical, chemical, and biological agents, as well as DNA replication errors, spontaneous hydrolytic reactions, and reactive oxygen species (ROS).

2. Telomere Attrition

Telomeres are the chromosomal regions located on the ends of chromosomes. They tend to become increasingly shorter after each DNA replication. When this sequence ends, the cell dies. Telomerase deficiency in humans is associated with age-related diseases.

3. Epigenetic Alteration

Epigenetic changes involve alterations in DNA methylation, post-translational modification of histones, and chromatin remodeling. It can lead to abnormal function of cell.

4. Loss of Proteostasis

Proteostasis involves mechanisms for the stabilization of correctly folded proteins, as well as mechanisms for the degradation of abnormal proteins. These processes tend to change during aging.

5. Deregulated Nutrient Sensing

Nutrient sensing includes trophic and bioenergetic pathways, such as insulin and IGF-1, signaling pathways, and other systems (mTOR, AMPK, and sirtuins).

6. Mitochondrial Dysfunction

There is a noticeable reduction in ATP generation and increased electron leakage in the respiratory chain caused by aging. It is associated with mitochondrial damage.

7. Cellular Senescence

Cellular senescence can be defined as a stable arrest of the cell cycle. The accumulation of senescent cells in aged tissues can lead to age-related disease progression.

8. Stem Cell Exhaustion

Stem cells are cells from which all other cells with specialized functions are generated. There is a substantial decrease in the number of stem cells during life. Recent studies suggest that stem cell rejuvenation may reverse the aging phenotype.

9. Altered Intercellular Communication

Neurohormonal signaling tends to be deregulated in aging as inflammatory reactions increase, while immunosurveillance against pathogens and premalignant cells declines.

3 New Hallmarks of Ageing

This analytical case study offers for consideration “Hallmarks” as factors and signs of immune, psychological and reproductive ageing: iAge, pAge and rAge, respectively. We focus on the modern understanding of ageing and the related study of various biomarkers that determine the signs of ageing. Each “feature” should ideally meet the following conditions:



Biological ageing, with a certain rate and sequence of age-related changes corresponding to the **biological, adaptive and regulatory** capabilities of a person



Its test correction (**slowing down or suppression**) to slow down the biological ageing process and **prolong the healthy life**



Its test **escalation** to **accelerate** ageing

The **ageing of the immune system (iAge)** is seen as a consequence of the constant exposure of the body to antigens. Lifelong antigenic load and oxidative stress affecting the immune system form an individual immunological history. The increasing imbalance of cellular and humoral immunity with age leads to a decrease in the efficiency of recognition and destruction of pathogens, an increase in the level of so called “inflammatory markers” in the blood, cells and tissues.

An important feature of the **psychology (pAge)** of older people is its vulnerability. With age, a person becomes less confident in himself and his strengths, fears appear (loneliness, death, poverty, etc.), the emotional sphere becomes impoverished. In favorable conditions, the human condition remains compensated for a long time. In the event of a job loss, a decrease in social activity, a narrowing of the social circle, negative changes intensify, suspicion, isolation, irritability appear, which only aggravate the problem.

Reproductive aging (rAge) in men and women has a number of features. Its consequences equally negatively affect health and well-being. Changes in the menstrual cycle, with varying cycle length, usually begin in a woman after 40 years. From about age 20, the production of testosterone (the main male sex hormone) in men usually begins to decline by about 1–2% per year. The rate of decline in testosterone production is subject to fluctuations in different men.

Concept of Longevity Medicine

Longevity Medicine is a Smart Precision Medicine (4P Medicine - Predictive, Preventative, Personalized, Participatory) based on Longevity Biomarkers (quantitative methods of ageing biomarkers reflecting biological age, which are individual for each person), therefore Longevity Medicine is personalised by nature.

Longevity Medicine combines the best practices from various fields and uses leading-edge innovation and technologies inherent in the so-called Smart Medicine — telemedicine, telemonitoring and diagnostics based on wearables, virtual care, home based therapy, machine learning, artificial intelligence, Internet of things, and serves to evaluate the patient's biological age throughout the course of life and prolong active longevity and maintain optimal functioning of the body throughout life.

Longevity physicians are looking for ways to reduce the gap between the current parameters (current biological age) and the parameters of optimal maximum physical performance (the ideal biological age, predicted by deep learning).

An important aspect of Longevity Medicine is the use of AI methods and medical decision support systems based on knowledge management.

The Field of Longevity Encompasses the Likewise Rapidly Evolving Areas of

Biogerontology

Geroscience

Precision
Medicine

Preventive
Medicine

Predictive
Medicine

Smart Medicine

Adequate curricula on ageing and Longevity biotechnology encompassing and explaining the complexities of those fields are an essential foundation to differentiate the burgeoning longevity medicine from anti-aging and prolonging life. Equipping healthcare providers with tools of obtaining and utilising an individualised precision dataset of each patient not only reduces the risks of the patient developing diseases, but mitigates and even eliminates diseases, and customises optimal preventive and therapeutic approaches.

Methodology for Selecting Biomarkers Panels

Diagnosis of ageing is an **urgent problem** of modern medicine, the solution of which opens the **possibility to influence the processes, triggers age-related changes, inhibits and prevents them, thus opening the prospects for aging prevention**. Therefore, of particular importance are the indicators of the body, the regulation of which we can increase, reviving the **continuation of human life**.



Of the thousands of **physiological parameters** known to science, more than **600** are already considered biological markers of ageing. Our task is **to develop a methodology** that would allow us to select from this variety the most interesting from a **practical point** of view biomarkers and offer them as recommended.



The most important thing from our point of view is to **determine** the criteria by which certain **biomarkers** will be classified and offered in the panel: minimum, optimal and maximum. The **criteria** have a degree of importance, the **sequence** of criteria is arranged in decreasing order of importance from 1 to 5.

1

Compliance with at least one of the 9 Hallmarks of Ageing (biomarker should reflect one of the mechanisms of the aging process of the human body).

2

Availability (prevalence, included in which panels, in which medical checks, diagnostic level: home diagnostics, laboratory level, medical center level, cost, possibility of coverage from insurance).

3

Reproducibility (degree of invasiveness, versatility, male / female, here we mean the ease of introducing a study into wide clinical practice).

4

Ease of interpretation of results (the parameter should have standardized quantitative indicators, and the values of the norm corridor are recognized in most studies and recommendations).

5

Allows to classify a biomarker by coverage or depth (molecular, cellular, tissue, organ, systemic, organismic).

Biomarkers Panel

The optimal version of biomarkers panel includes **functional biomarkers**. To this panel were added **biomarkers**, which are best related to the **signs of ageing**, including biomarkers of reproductive, immune and psychological health. A number of studies aimed at **diagnosing** and **predicting ageing**.

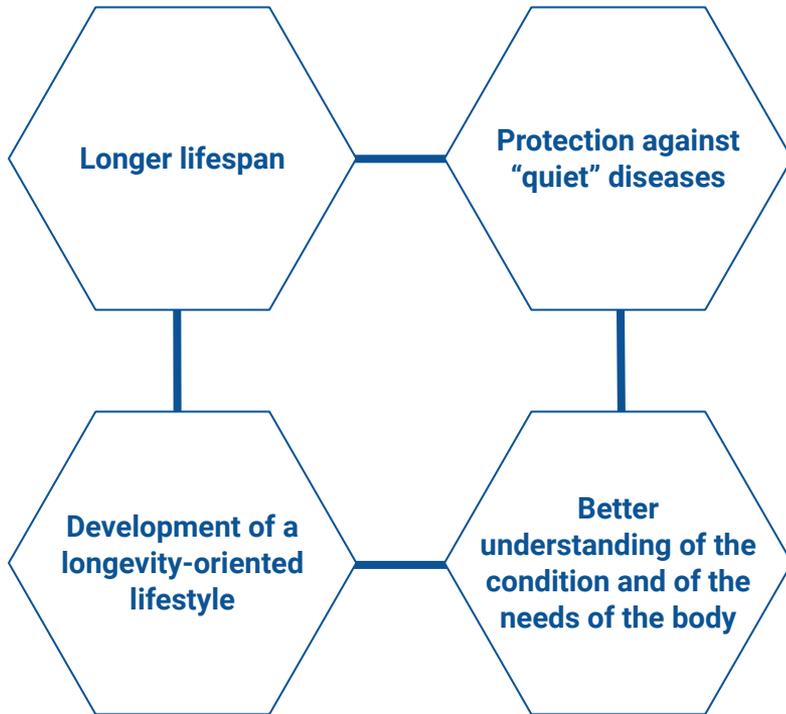
Alanine aminotransferase (ALT)
Aspartate aminotransferase (AST)
Zinc
Albumin
Alpha-fetoprotein (AFP)
Vitamin B12 (cyanocobalamin)
Calcium (total)
Parathyroid hormone
Atherogenicity index
Insulin
Glucose
NT-proBNP
HOMA-IR index calculation
Creatinine
Magnesium
Urea (BUN)

Uric acid
T3 (general)
T3 (free)
T4 (general)
T4 (free)
C-reactive protein (ultrasensitive)
Interleukin 6
Serum iron
TSH
Antibodies to thyroglobulin, anti-TG
Antibodies to thyroperoxidase, anti-TPO
Cortisol
Testosterone
Ferritin
Homocysteine
Vitamin D (25-OH) (calciferol)

Folic acid in erythrocytes
Cholesterol
Cholesterol-HDL
LDL cholesterol
Triglycerides
Bilirubin (common)
ECG (with transcript)
Se (selenium (ISP-MS))
Glycated hemoglobin (HbA1C)
Lactate
General blood test (5-diff)
D-dimer
Calcium (Ca ²⁺), Potassium (K ⁺), Sodium (Na ⁺), Chlorine (Cl ⁻)
Duplex scanning of the carotid arteries to determine the thickness of the intima-media complex

Concept of Longevity Check-Up

Benefits of Having a Longevity Check-up

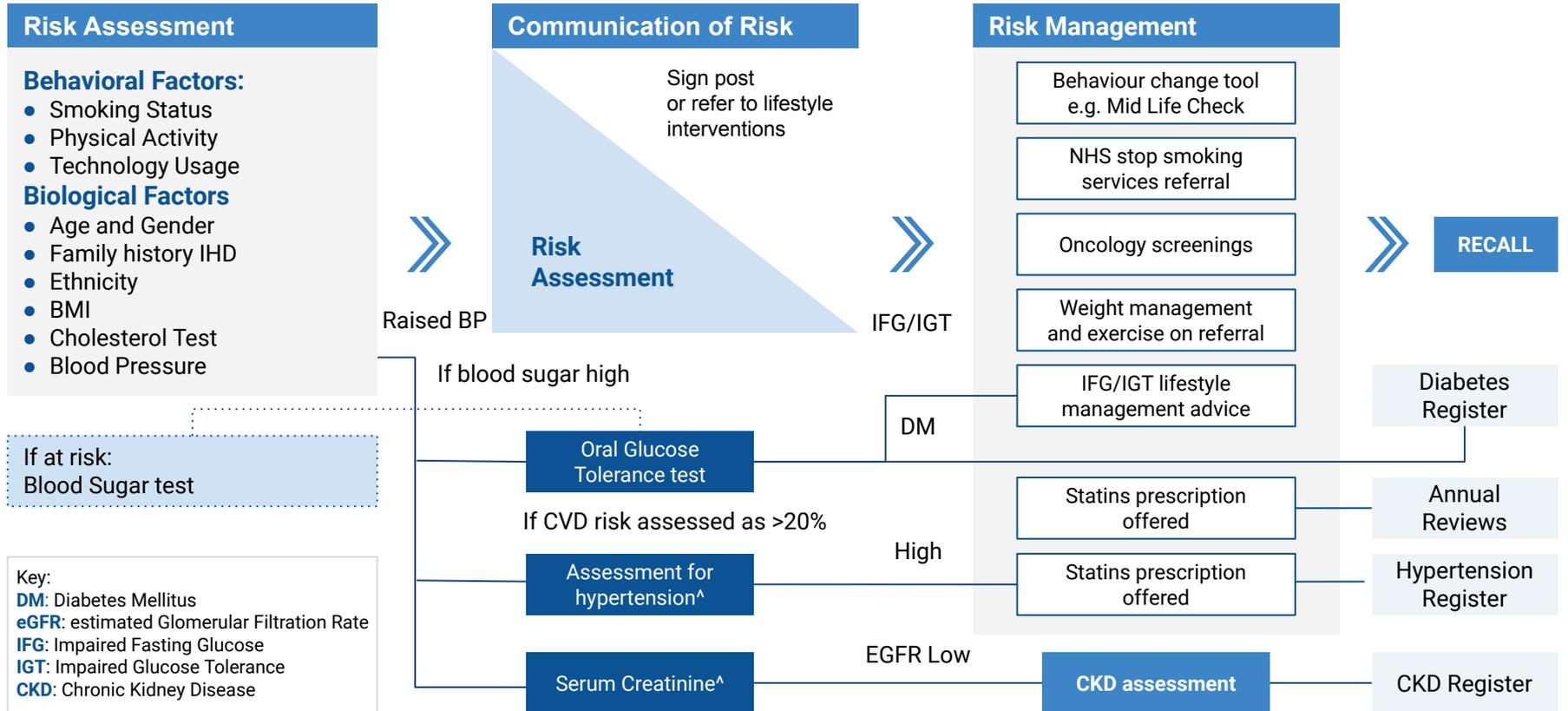


Longevity check-up is a type of **medical check-up** which collects in-depth data on the patient's health to assist in the prevention of disease and to **guide the patient towards** an increased lifespan. Longevity check-ups use precision medicine technologies to obtain data otherwise inaccessible to the patient and their doctor in a more traditional **disease- and symptom-focused** medical care model. Contrary to the latter, longevity check-ups are a part of the preventive medicine paradigm.

Longevity check-ups offer the patients a variety of analyses that are usually only **available to patients with specific symptoms**: MRI, CT, Ultrasound scans, involved **bloodwork, genetic investigations**, etc. The collected data is then used to catch the early signs of disease (which may include lifestyle, chronic, and oncological diseases), and to track the **performance** of the body with regards to its best possible performance.

Longevity check-ups are the first step to and a powerful tool of longevity medicine. **Early diagnostics** and advanced data parsing allows the medical team to tackle any diseases before they develop larger imbalances and deficiencies in the patient's body, often resulting in an **easier and more complete** treatment. This effect is famously studied for cancers, which are most effectively treated before the patient develops any symptoms. Effective treatment of such **diseases has** a direct influence on the patient's lifespan and, together with proper advising on nutrition and lifestyle (which can also be derived from diagnostic data) **could ensure** that the patient lives a longer and a healthier life.

Longevity Health Check Programme



Longevity Health Check Programme

Conduct Risk Assessment

- Age
- Gender
- Ethnicity
- Family history IHD
- Physical activity
- Alcohol screening AUDIT C
- Smoking status
- BMI – Body Mass Index
- Blood pressure above 140/90 mmHg
Repeat 3 times – record last result
If above 180/110 seek immediate advice
from Practice Nurse or GP
- Over 65
- Pulse check record regular or irregular
- Dementia awareness

Assess Risk Score

Calculate the risk score: the score relates to a person's risk of having a cardiovascular event within ten years following the health check. Provide clear written and verbal information about the risk score and what it means.

Discuss Risk Score

Discuss CVD risk and healthy lifestyle. Signpost or refer to lifestyle programmes (record on template and written information for the person)

- NHS Stop Smoking Service
- Alcohol brief advice
- Physical Activity advice
- Weight Management advice

Cardiovascular Disease (CVD) Risk:

Below 10%

with no other risk factors –
no blood test required.



Blood Tests

ALL: Total and HDL Cholesterol
Those with obesity levels BMI ≥ 30 (27.5 South Asian)
to include: HbA1c, eGFR
Results to be checked by PN or GP

Results

Blood test confirms CVD risk is < 10%:
Advice by HCA
Record written information for the individual

Blood test confirms CVD risk is 10-19%:
Advice by GP/PN
Record written information for the individual



Blood Tests

Total and HDL cholesterol
HbA1c, eGFR; ALT-Alanine aminotransferase NOT full LFT array
Results to be checked by PN or GP

Results

Blood test confirms CVD risk is $\geq 20\%$
Or abnormal BP/eGFR/HbA1c
Advice by GP/PN
On management options



To be seen again in 5 years

Annual Review

Annual Review

Concept of Longevity Clinic

The Longevity Clinic is a specialised medical institution, whose specialists deal exclusively with the problems of prolonging active life in its various aspects. They can be multidisciplinary or focus on one of the following areas:

Diagnosis and Treatment of Age-dependent Diseases

Esthetic Medicine and Cosmetology

Regenerative Medicine

Reproductive Medicine

Functional Medicine

Sport Medicine

Rehabilitation

Longevity diagnostic is a **new approach** to assessing human health, which differs from the **traditional** in that **comprehensive examination programs** and interpretation of results are conducted with a focus on **prolonging the active quality of human life**, taking into account risk factors affecting aging and the **development** of common diseases **associated with age**.

Performing laboratory (tests of blood and other biological fluids) and instrumental (ultrasound, MRI, etc.) tests to detect diseases, including in the early stages of development

Biomarkers of aging

Immune status study

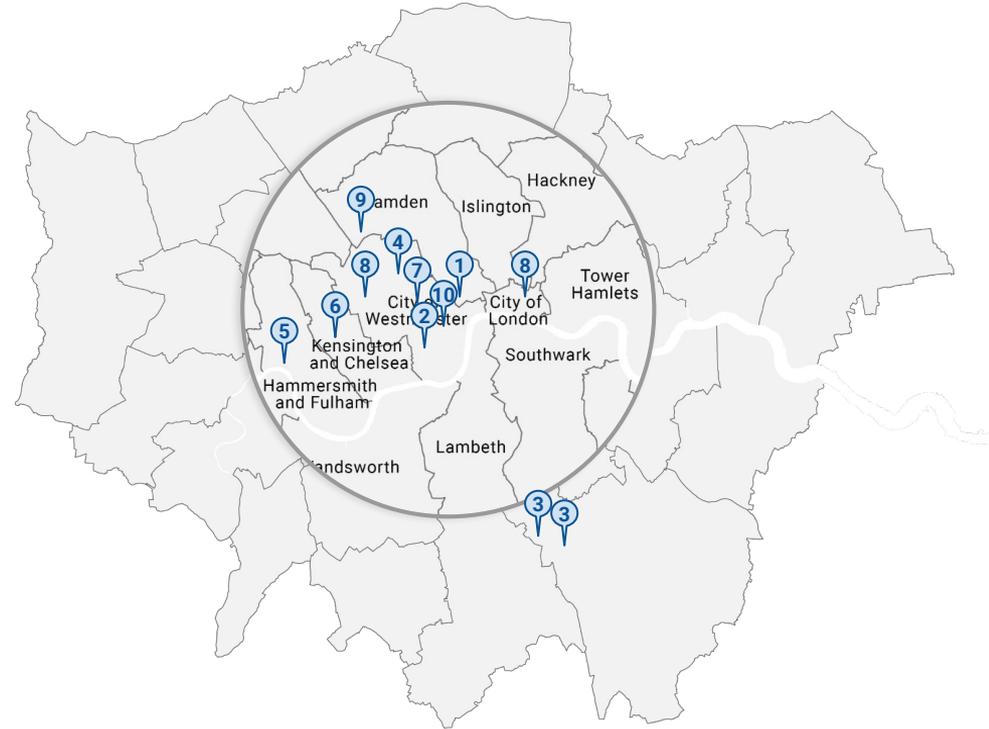
Genomic status study

The **paradigm of longevity** and healthy aging as a top priority has a **significant impact** on approaches to **primary, secondary and tertiary disease prevention**. Along with clinical (objective) health indicators, specialists in the field of **longevity medicine** emphasize the **subjective assessment of health and quality of life**, as well as the unity of **chronological (passport), biological and subjective (psychological) age**.

Longevity Clinics in London

1	Echelon Health (68 Harley Street)
2	Health Optimising (56 Maida Vale)
3	Human Health (Honor Oak Park: 43 Honor Oak Park and Crystal Palace: 33 Anerley Road)
4	Kuer Clinic (25 Wimpole Street)
5	London Center for Longevity and Metabolic Health (264 High Street)
6	London Integrated Health (150 Princes Ave)
7	Medical Express Clinic (117A Harley St)
8	One5 Health (One5 Health City: 30 Moorgate and One5 Health Marylebone: 83 Baker Street)
9	Paar London (S. Molton St)
10	Wellgevity (18 Dover St)

Locations of the Longevity Clinics



Aging Analytics Agency: Value Proposition

Visit Website



Aging Analytics Agency is the only specialised analytics agency in the world that focuses exclusively on the emerging Longevity Industry. They are recognised internationally as the premier analytics agency for advanced data analysis, industry reports and next-generation infographics on the topics of Aging and Longevity.

Aging Analytics Agency is focusing on three key activities:

Providing Commercial Services

Conducting customised case studies, research and analytics for internal (organizational) use, tailored to the precise needs of specific clients.

Preparing Open Access Reports

Producing regular open access and proprietary analytical case studies on the emerging topics and trends in the Longevity Industry.

Building Big Data Analytics Platforms

Offering customised analysis using specialised interactive industry and technology databases, IT-platforms and Big Data Analytics Dashboards.





AGING ANALYTICS AGENCY

Link to the Report: analytics.dkv.global/longevity-clinics-in-london.pdf

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