AYULIFE HEARTCARE CENTER

AYURVEDIC MANAGEMENT OF HEART DISEASE

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Ayurveda is not merely a system of medicine, but a profound art of living and a timeless science of life that has served humanity since ancient times. At its core, Ayurveda is rooted in a deep philosophical framework, which forms the foundation of its enduring wisdom and holistic approach to health.

In Ayurveda, the term 'Hrudaya' is synonymous with the heart, a vital organ classified as one of the 'marma' points — critical life centers in the body. Any injury to this organ can be fatal, emphasizing its essential role in sustaining life.

Etymologically, the word *'Hrudaya'* is derived from two Sanskrit roots: 'Hru', meaning *to draw or pull towards*, and 'Da', meaning *to give or donate*. While the traditional explanation may appear concise, its deeper meaning is profound. In its expanded interpretation, *Hrudaya* refers to an organ that draws vital fluids, including blood, from all parts of the body and redistributes them back to nourish the entire system.Beyond its physiological role, Ayurveda also embraces a metaphysical perspective, recognizing the intimate connection between the heart and the mind. This is encapsulated in the phrase "Hrudayam Ya Manaso Hitam," meaning *"the heart is that which is in harmony with the mind."* This concept highlights the holistic view of health in Ayurveda, where emotional and mental well-being are intricately linked with physical health — particularly that of the heart.

It is interesting that, there is no basic difference in the classification of '*Hrudroga* ' in Ayurveda and heart disease in modern system of medicine. Classification in Ayurveda, actually written down more than 5000 years ago, is as follows:-

1	Adibala pravrutha	Hereditary or Metabolic diseases.
2	Janmabala pravrutha	Congenital heart diseases.
3	Doshabala pravrutha	Vata, pitta, kaphaja etc.,
4	Samghatabala pravrutha	Traumatic, poisoning.
5	Kalabala pravrutha	Seasonal, environmental.
6	Upasargaja	Infectious diseases.
7	Adhyatmika	Psychological, stress, hypertension etc.,
8	Swabhavabala krutha	Due to ageing etc.,
9	Daivabala krutha	Due to bad deeds of previous lives.

According to Ayurveda, the Hrudaya (heart) is considered the seat of Ojas, the vital essence that represents the refined energy of all bodily tissues. Ojas is responsible for nourishing and energizing the entire body, and a person's health and happiness are closely linked to its quantity and quality. Ojas symbolizes biological strength, vitality, and immune resilience. Any disturbance or depletion of Ojas can weaken the immune system and may contribute to the onset of immune-related conditions, including autoimmune disorders and infectious diseases affecting the heart, given that the heart is the primary

residence of Ojas. Interestingly, some scholars have drawn parallels between Ojas and Creatine Phosphokinase (CPK) — particularly its cardiac-specific isoenzyme, CPK-MB, in modern medical science.

Ayurvedic cardiology has long focused on the maintenance, management, cardioprotection, and prevention — including secondary prevention — of heart diseases. Today, it is well-established that Ayurvedic treatments can effectively eliminate heart blockages and fully restore damaged heart valves.

Our approach is rooted in unique Ayurvedic concepts regarding the causes of Hrudroga (heart disease). Diagnosis is carried out through a comprehensive three-step process:

1. **Primarily**, through traditional **Ayurvedic diagnostic methods**, which remain central to our practice.
2. **Secondly**, with the support of **relevant blood investigations** to assess internal imbalances.
3. **Finally**, using the **non-invasive diagnostic tool — 3D Cardiovascular Cartography**, which offers valuable insights into heart function and circulation.

Treatment is administered exclusively through **specialized Ayurvedic medicines**, with **Panchakarma therapy** incorporated when deemed necessary. Patients are provided with a **strict dietary regimen**, and **regular follow-up evaluations** are conducted at scheduled intervals to monitor treatment progress.

Coronary Artery Disease (CAD) is a progressive and silent threat. If not identified in its early stages, it can eventually lead to **chest pain**, **heart attacks**, or even **sudden cardiac death**. It is important to understand the difference between being **truly healthy** and merely **appearing healthy**. Often, underlying disorders may quietly develop within the body and manifest symptoms only when they have advanced significantly.

Early detection is key — **identifying and addressing disease at its onset can prevent serious complications**. To facilitate this, we utilize **3D Cardiovascular Cartography (3D CCG)**, also known as the **"Cardio Scan"** — a powerful, non-invasive diagnostic tool that enables timely and accurate assessment of heart health.

What is 3 Dimensional Cardiovascular Cartography?

3 D cardiovascular Cartography

3D Cardiovascular Cartography (3D CCG) is a cutting-edge, non-invasive diagnostic technology based on **Trans-Aortic Signal Wave Modulation (TASWM)** and **Flow Turbulence Accelometry (FTA)** — collectively known as the **Vertical Acceleration Detector**. This innovative method generates a comprehensive **physiological profile of the cardiovascular system**, evaluating more than **64 functional parameters**, which significantly enhance the accuracy of diagnosis.

One of its key capabilities is the **measurement of blood flow to various regions of the heart**. A significant reduction in blood flow detected by this system often indicates the presence of **vascular obstructions**. Remarkably, this technology can identify blood flow reductions due to blockages as small as **3%**.

Beyond detecting blockages, the 3D CCG scan can assess:

- **Arterial stiffness (arrhythmogenicity)**
- **Clotting tendency (thrombogenicity)**
- **Overall stress or workload on the heart**

More crucial than simply identifying blockages is understanding **how well blood is actually flowing through the coronary arteries**. This is because **the extent of blockage does not always**

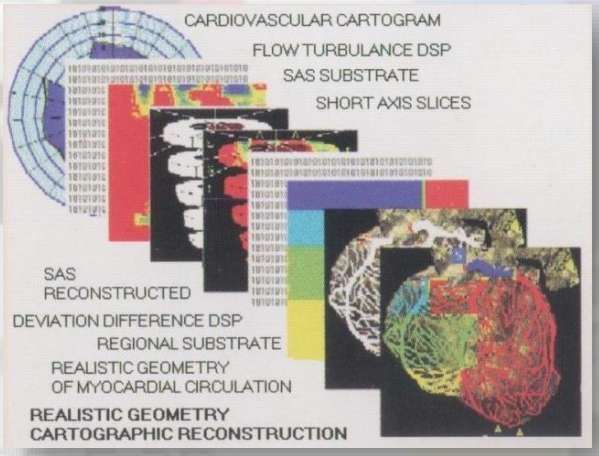
correlate with clinical symptoms. Instead, **the degree of blood flow reduction** is a more accurate indicator of heart health.

This is especially relevant due to the presence of the body's **natural backup system** — known as **collateral blood flow** or **natural bypasses** — which can develop over time in individuals with severe blockages. The 3D CCG scan evaluates the **Collateral Flow Index**, which measures the heart's ability to form these natural bypass channels.

In summary:

- A patient with significant blockages but a **high Collateral Flow Index** may have a **lower risk** of heart attack or sudden cardiac death.
- Conversely, a patient with reduced blood flow and a **low capacity for natural bypass formation** is at **higher risk**.

Understanding the **functional capacity and blood flow dynamics of the heart** is far more valuable than merely knowing the percentage of blockage. The 3D CCG scan empowers early detection, individualized risk assessment, and better clinical decision-making.



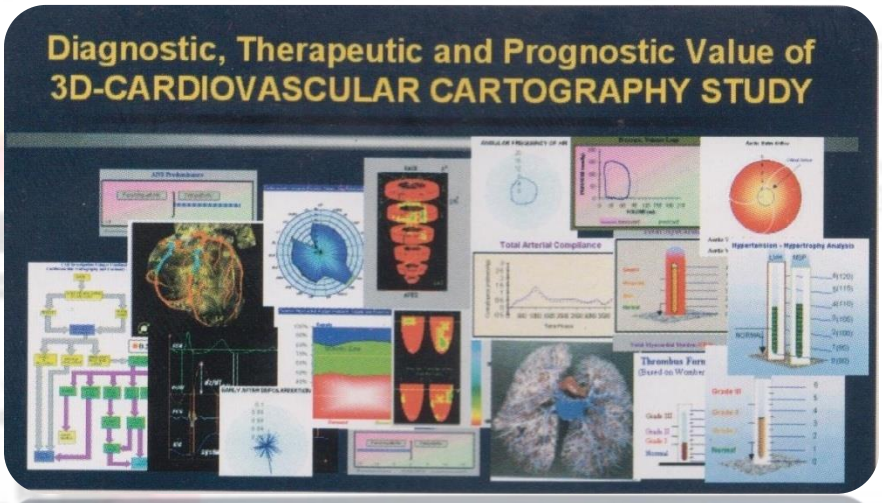
Advanced imaging technique which puts complex theory into simple practice

3D CCG, The most comprehensive functional physiology study provides...

1. Stroke Volume
2. Cardiac Out Put
3. Cardiac Index
4. Contractility
5. Acceleration of Blood Ejected
6. Pre - Load
7. After - Load
8. Blood Pressure

9. Mean Blood Pressure
10. LV Ejection Rate
11. LV Ejection Fraction
12. LV Regurgitate Fraction
13. Left Cardiac Work
14. All systolic and Diastolic Timings
15. Electromechanical Activities
16. ANS Predominance
17. Pulmonary Air retention
18. Pulmonary Fluid Retention
19. Pulmonary Vascular Resistance
20. Global Myocardial Blood Flow
21. Regional Myocardial Blood Flow
22. Mean Coronary Driving Pressure
23. Global Cardiac Efficiency
24. Left Ventricular Stroke Work
25. Collateral Flow Index
26. Coronary Vasodilators Reserve
27. Pressure Volume Loop
28. Mitral Valve Orifice Area
29. Aortic Valve Orifice Area
30. Angular Frequency of Heart
31. Angular Frequency of Inter-beat-interval
32. Early After Depolarisation
33. Delayed After Depolarisation
34. Arrhythmogenecity
35. Thrombus Formation Factor
36. Arterial Compliance
37. Ventricular Compliance
38. Total Myocardial Burden
39. Left ventricular relaxibility
40. Adrenergic Activity
41. Hypertension Analysis
42. Hypertrophy Analysis
43. Regional effective Coronary narrowing Index
44. Body fat mass
45. Basal Metabolic Rate
46. Systemic Vascular Resistance
47. Systemic vascular Index
48. Mean Arterial Blood Pressure
49. Heart Rate
50. R R Interval
51. Myocardial Oxygen Consumption and Minute Work
52. Myocardial Oxygen Demand and Supply
53. Jeopardy of Myocardium
54. Cardiac Minute Work
55. Maximal Coronary Flow
56. Myocardial Tissue Volume
57. Average capillary Surface Area
58. Volume Burden
59. Pressure Burden
60. Ischemic Burden
61. Global Blood Flow Deficiency Index

62. Coronary Vasodilator Reserve
63. Systolic Time interval
64. Stroke Index



➢ Advantages of 3D Cardiovascular Cartography

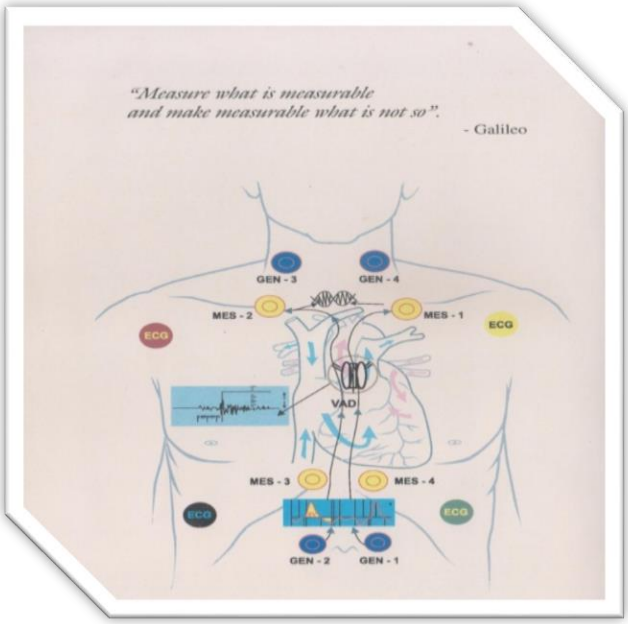
- The first and most important advantage is early detection of Coronary Artery Diseases in asymptomatic subjects – AMONG ONE OF THE MOST ACCURATE METHODS TO DETECT EARLY CORONARY ARTERY DISEASES.
- Reliable detection of CAD (Coronary Artery Disease)and its severity.
- Understanding underlying causes of chest pain in the absence of CAD.
- Forecast signal of myocardial ischemia, prior to development of angina.
- Establishing ANS activity.
- Establishing thrombogenicity in cardiac patients
- Establishing arrhythmogenicity.
- Establish proneness to Sudden Cardiac Death Syndrome (SCDAS).
- Measurement of Arterial elasticity, endothelial function and progression of atherosclerotic processes.
- Measurement of ventricular elasticity and diastolic stretch in hypertrophy.
- Early detection of pulmonary oedema, before the development of clinical symptoms.
- Early detection of COPD, its progression and effect of Ayurvedic treatment.
- Aids in decision making in choosing the line of management in Ayurveda.
- Follow-up functional effectiveness during Ayurvedic treatment.
- Establishment of pliability of Mitral and Aortic valves, in Valvular Heart Diseases.
- Can be repeated any number of times unlike the invasive methods, and hence the effectiveness of cardiac treatments can be assessed easily and regularly

➢ Who requires Cardio Scan ?

- ✓ Persons with high Blood Pressure / Diabetes / Obesity.
- ✓ Anyone with smoking and drinking habits.
- ✓ Anyone who lacks exercise.
- ✓ Anyone who eats junk foods / excess food.
- ✓ Anyone with family history of heart disease.
- ✓ Anyone undergone Angioplasty / Bypass surgery.
- ✓ Anyone above 30 years of age with stressful lifestyle.
- ✓ Anyone who have had heart attack and is undergoing treatment.
- ✓ For identification of proneness to cardiac arrhythmic.
- ✓ Anyone who have or had arthritis for a period of beyond five years.
- ✓ Anyone who have or had Rheumatic fever for a period of beyond five years.
- ✓ For assessment of cardiac efficiency.

➢ Test procedure of Cartography

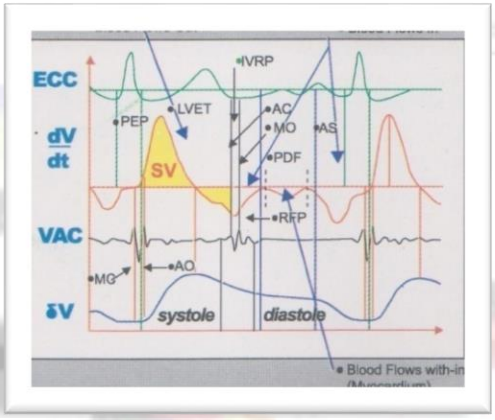
- ❖ Should have fasting for 3 to 4 hours.
- ❖ No drugs for a period of 12 hours.
- ❖ No consumption of alcohol / smoking for 12 hours.



The Cardiac cycle-known invasively obtained dV/dt Curve. Time related with other physiological curves as produced by HAEMOSIEIS 256

Twelve disposable electrodes are placed on the chest for Electrocardiography (ECG) and Vertical Acceleration Detector (VAD) for Thoracic Bio-Impedance (TBI).These are connected to cartography machine called HAEMOTRON with patient in supine and or sitting position and recording is done. Printed colour reports are given to the patient.

In short it can be called as "HEART FUNCTION TEST" just like liver function test or pulmonary function test. THIS IS CONSIDERED TO BE THE EARLY WARNING SYSTEM. Overall it provides an assessment of the functional status of the heart. THE INFORMATION OBTAINED BY 3D CCG (in a single test) IS NOT PROVIDED BY ANY OF THE EXISTING CARDIAC DIAGNOSTIC TOOLS.



A blinded study was conducted in India with 273 patients and the result were published in the IEEE CBMS-2001, 26-27,July 2001, National Institute of Health, Bethesda, Maryland, USA, as a part of various medical devices approval process. It is highlighted as "The dawn of a new era – Non-invasive coronary imaging".

THE SENSITIVITY OF THIS TEST IS 91% AND SPECIFICITY IS 92%.

IN ADDITION TO AYURVEDIC PARAMETERS, OUR CENTER IS ALSO USING
BOTH 3D CCG TEST AND RELATED BOOLD TESTS
BEFORE ARRIVING INTO A PROPER DIAGNOSIS.
BLOOD TESTS ARE DONE AT AN INTERVAL OF THREE MONTHS
AND FOLLOW UP 3D CCG SCAN AFTER
SIX MONTHS TREATMENT,
TO ASSESS THE PROGRESSION.

THE FUTURE PATIENT MANAGEMENT WILL BE TRANSFORMING FROM
EMPIRICAL MEDICINE TO FUNCTIONAL MEDICINE OR
EVIDENCE BASED CLINICAL EXPERIANCE

We serve to correct the heart naturally
www.ayulifeheartcare.com