



aCARDIOz

CARDIO from A to Z!

aCARDIOz SSIBR Technology – Foundations Lost In Space – Part 2

aCARDIOz NON-invasive Pulse Oximetry Technology 1992~2013, was initiated during [Project La Chalupa 30](#), a 30 day Undersea experiment during a [1992 NASA/MRDF](#) (National Aeronautics and Space Administration / [Marine Resources Development Foundation](#)) joint venture cooperative program. aCARDIOz released the “apHitz” (aCARDIOz **p**ersonal **H**ealth **i**ndex **t**racking **z**one) in 2013 following years of development.

aCARDIOz knew it was imperative to continue leading the world in cardiovascular innovation. God’s Speed along with 5 doctor’s possessing specialized experience and medical knowledge in the Aerospace Industry raised the bar. The undersea/outer space collaborations created the [aCARDIOz NON-invasive SSIBR Technology \(Specialized Strategic Impedance Bio Research\)](#).

aCARDIOz NON-invasive SSIBR Technology’s foundation was conceived by doctors working as private contractors creating medical monitoring and screening technology to fly on the Apollo Moon Missions. The tragedy of the cabin fire during a test and launch rehearsal at [Cape Kennedy Air Force Station, Launch Complex 34 on January 27, 1967, killed all three crew members of the AS-204](#) (Apollo/Saturn 204), known to the world as Apollo 1.

Future Apollo medical projects were scrubbed prompting the dev team of doctors to exit NASA. The political rubble also buried the medical advancements from the public for decades. Future development of aCARDIOz SSIBR predecessor technology was “[Lost In Space](#)” for over 50 years.

aCARDIOz recognized following a family death, the global void created by the medical industry’s negligence by evading their own development of low cost, high tech, no risk technology for cardiac function screening & monitoring. Cardiovascular Disease (CVD) has since developed into the number 1 killer in the world creating the perfect global storm for acceptance of aCARDIOz.

aCARDIOz SSIBR Technology produces 49 NON-invasive measurements (listed below) exceeding the most sophisticated catheterization laboratories in modern medicine. Ask YOUR cardiologist how many of the 49 NON-invasive measurements below can be performed at the world’s leading hospitals for pennies, under 6 minutes without cutting YOUR skin, make YOUR decision.

aCARDIOz Helps You Eradicate CVD, Heart Attacks, Diabetes and Strokes killing 17.8 Million in 2016.

DO YOU KNOW ANYONE THAT HAS DIED FROM A HEART ATTACK OR IS SUFFERING FROM A STROKE? Authorities report on Cardiovascular Disease (CVD):

- **#1 Killer in the World**
- **Every 60 seconds someone in America DIES from CVD**
- **17.8 MILLION people died last year from CVD/Heart Disease**
- **More People Die from CVD than all forms of cancer combined**
- **2016 Direct and Indirect Costs of CVD = \$555 Billion**
- **Over 1 MILLION Americans died 2016 from CVD, 420k first sign was DEATH**

How many were YOUR family members?



Do Your fingers and toes stay cold or occasionally tingle?

Do You experience chest pains or numbness in Your arms and legs?

Help Your loved ones get their "apHitz" before it's too late!

Hello, I'm Richard Presley. Founder and CEO of **aCARDIOz**.

My Dad died suddenly at 66 years young with Diabetes and Cardiovascular Disease (**CVD**) after a hospital visit and EKG failed to report cardiovascular red flags. Now, I understand how the **aCARDIOz** "one number" "**apHitz**" system could have positively impacted my family's health.

Your **aCARDIOz** **p**ersonal **H**health **i**ndex **t**racking **z**one (**apHitz**) patent pending technology generates an accurate single number that can accurately track and trend your cardiovascular health in minutes allowing You to Know Your CARDIO from "a to z".

aCARDIOz was not around to help my Dad, but it certainly might help YOU or one of YOUR family members. Today you can HELP others not as fortunate as you. **aCARDIOz** is Much More than an Activity Tracker or Simple Tracking Smart Device.



Specialized Strategic Impedance Bio Research – SSIBR & Pulse Oximetry Technology

- 1:** Pulse Rate (PR). Pulse rate is the number of heart beats (cardiac cycles) per minute. It is measured from the R-R interval of the electrocardiogram (ECG). The electrocardiogram is a cardiac electrical parameter measured by the SSIBR system. HR is expressed in beats/min.
- 2:** O₂ Sat (SpO₂): The oxygenated hemoglobin (hemoglobin containing oxygen) compared to the total amount of hemoglobin in the blood (oxygenated and non-oxygenated hemoglobin) as an expressed percentage for peripheral capillary oxygen saturation.
- 3:** Stroke Volume (SV): Stroke volume is the amount of blood pumped out of the left ventricle in one heartbeat/cardiac cycle. It is expressed in ml/beat.
- 4:** Stroke Index (SI): Stroke index is the stroke volume normalized to the body surface area (BSA). This allows a large individual to be compared with a small individual.
- 5:** Arterial Stiffness Index (ASI): The ASI is a measurement of the large arteries for early detection of multiple chronic inflammatory disorders utilizing Pulse Wave Velocity. It is a measure of the timing of the diastolic relative to the systolic component. A higher ASI is considered indicative of noncompliance relative to calcification and abnormal arterial wall function.
- 6:** Arterial Reflective Index (ARI): The ARI is a measurement of the small arteries for early detection of multiple chronic inflammatory disorders utilizing Pulse Wave Velocity. It is a measure of the timing of the diastolic relative to the systolic component. A higher ARI is considered indicative of noncompliance relative to calcification and abnormal arterial wall function.
- 7:** Hydration/Pulse Height (HPH): The hydration/pulse height is a measurement of the volume of blood in the arterial system utilizing digital pulse wave analysis.
- 8:** Large Artery Elastic Index (LAEI): The large artery elastic index is the measurement of the large artery system compliance utilizing digital pulse wave analysis.
- 9:** Small Artery Elastic Index (SAEI): The small artery elastic index is the measurement of the small artery system compliance utilizing digital pulse wave analysis.
- 10:** Peripheral Artery Elastic Index (PAEI): The peripheral artery elastic index is the measurement of the peripheral artery system compliance utilizing digital pulse wave analysis.
- 11:** Cardiac Output (CO): Cardiac output is the amount of blood pumped out of the heart in one minute. CO is expressed in liters/minute. Since the left and right sides of the heart (ventricles) are matched under normal conditions, the right ventricular output into the lung (Thermodilution method) should equal the left ventricular output (SSIBR method) pumped into the systemic circulation.
- 12:** Cardiac Index (CI): Cardiac index is the cardiac output normalized to body surface area (BSA). This allows comparisons between large and smaller individuals.
- 13:** Stroke Work (SW): Stroke work is a measure of the performance of the heart, usually referring to the left ventricle and cardiac output; it is increased in hypovolemia and hypertension and decreased in aortic stenosis, shock, and heart failure.

- 14: Cardiac Work (CW):** Cardiac work is a measure of the performance on the heart each minute.
- 15: End Diastolic Volume (EDV):** End diastolic volume is the filling volume of blood in the left ventricle. It is called the preload to the left heart.
- 16: End Systolic Volume (ESV):** End systolic volume is the volume of blood in the left ventricle at the end of systole.
- 17: Left Ventricular Ejection Time (LVET):** The left ventricular ejection time is the time (milliseconds) it takes the heart (left ventricle) to eject blood (SV) into the aorta. It is the interval between the opening and closure of the aortic valve. The interval assess left ventricular performance.
- 18: Left Ventricular Ejection Fraction (LVEF):** Left ventricular ejection fraction is an efficiency parameter term expressed as a percentage for the left heart. It is the fraction of the end diastolic volume pumped out of the heart each cardiac cycle.
- 19: Aortic Ejection Velocity (AEV):** Aortic ejection is the heart blood ejection velocity into the aorta for each cardiac cycle.
- 20: Myocardial Function Curve (MFC):** The myocardial function curve is known as the Starling curve. It is the relationship between the output of the heart (SV) to the input to the heart (EDV).
- 21: Thoracic Fluid Volume (TFV):** The total volume of the fluid within heart, the plural space, the lung and chest wall.
- 22: Basal Thoracic Impedance (BTI):** The basal thoracic impedance is the impedance between the inner two recording electrodes, including the heart, lung, chest wall, plural space and the medial sternal.
- 23: Left Main Coronary Artery Blood Flow (LMCBF):** The total blood flow through the left coronary artery occurring in early diastole.
- 24: Left Main Coronary Artery Blood Flow Velocity (LMCBFV):** The blood flow velocity through the left coronary artery occurring in early diastole.
- 25: Right Main Coronary Artery Blood Flow (RMCBF):** The total blood flow through the right coronary artery occurring in early diastole.
- 26: Right Main Coronary Artery Blood Flow Velocity (RMCBFV):** The blood flow velocity through the right coronary artery occurring in early diastole.
- 27: Left Circumflex Coronary Artery Blood Flow (LCCBF):** The total blood flow through the left circumflex coronary artery occurring in early diastole.
- 28: Left Circumflex Coronary Artery Blood Flow Velocity (LCCBFV):** The blood flow velocity through the left circumflex coronary artery occurring in early diastole.
- 29: Right Circumflex Coronary Artery Blood Flow (RCCBF):** The total blood flow through the right circumflex coronary artery occurring in early diastole.
- 30: Right Circumflex Coronary Artery Blood Flow Velocity (RCCBFV):** The blood flow velocity through the right circumflex coronary artery occurring in early diastole.
- 31: Left Anterior Descending Coronary Artery Blood Flow (LADCBF):** The total blood flow through the left anterior descending coronary artery occurring in early diastole.
- 32: Left Anterior Descending Coronary Artery Blood Flows Velocity (LADCBFV):** The blood flow velocity through the left anterior descending coronary artery occurring in early diastole.
- 33: Right Anterior Descending Coronary Artery Blood Flow (RADCBF):** The total blood flow through the right anterior descending coronary artery occurring in early diastole.

- 34:** Right Anterior Descending Coronary Artery Blood Flow Velocity (RADCBFV): The blood flow velocity through the right anterior descending coronary artery occurring in early diastole.
- 35:** Left Posterior Descending Coronary Artery Blood Flow (LPDCBF): The total blood flow through the left posterior descending coronary artery occurring in early diastole.
- 36:** Left Posterior Descending Coronary Artery Blood Flow Velocity (LPDCBFV): The blood flow velocity through the left posterior descending coronary artery occurring in early diastole.
- 37:** Right Posterior Descending Coronary Artery Blood Flow (RPDCBF): The total blood flow through the right posterior descending coronary artery occurring in early diastole.
- 38:** Right Posterior Descending Coronary Artery Blood Flow Velocity (RPDCBFV): The blood flow velocity through the right posterior descending coronary artery occurring in early diastole.
- 39:** Left Marginal Blood Flow (LMBF): The total blood flow through the left marginal coronary artery occurring in early diastole.
- 40:** Left Marginal Blood Flow Velocity (LMBFV): The blood flow velocity through the left marginal coronary artery occurring in early diastole.
- 41:** Right Marginal Blood Flow (RMBF): The total blood flow through the right marginal coronary artery occurring in early diastole.
- 42:** Right Marginal Blood Flow Velocity (RMBFV): The blood flow velocity through the right marginal coronary artery occurring in early diastole.
- 43:** Peripheral Arterial Blood Flows (PABF): The total blood flow through the peripheral vessels (arms, legs and neck) except the brain occurring during systole.
- 44:** Peripheral Arterial Blood Flow Velocities (PABFV): The blood flow velocities through the peripheral artery occurring in early diastole.
- 45:** Peripheral Venous Flows and Vascular Occlusions (PVFVO): The venous flow in the large veins returning blood flow to the heart where vascular occlusions can be identified.
- 46:** Peripheral Vascular Resistance (PVR): Peripheral vascular resistance is the resistance to blood flow through the systemic circulation of the body.
- 47:** Peripheral Venous Blood Flow (PVBF): This is a venous occlusion and electrical impedance method used to detect deep venous thrombi in the veins in the arms and legs.
- 48:** Total Peripheral Resistance (TPR): The sum of the resistance of all peripheral vasculature in the system circulation. This should not be confused with Pulmonary Vascular Resistance, which is the resistance in the pulmonary vasculature.
- 49:** Total Coronary Flows, Flow Velocities and Stenosis Detection (TCF, FV, SD): This is a template of the heart arterial system that shows the coronary artery, the flow velocities and the location and magnitude of intravascular stenosis.



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