Age:	61
Gender:	Female
Reported Symptom Status:	Not stated

A-ECG Report For:	**Starr, Ima**

(Date/Time of A-ECG-Test):	(10-09-2014 18.20)
Type of Test:	Comprehensive
Indication(s) for Test:	Preventive Screen

Study / Physician:	Dr. Marcus Welby
ECG Research Consultant:	T.T. Schlegel

CONVENTIONAL 12-LEAD ECG RESULTS AND REPORT

(Note: a copy of the conventional 12-lead ECG may accompany this report as a separate document)

Detailed Result For: **Ima**   **Starr**

Age: 61
Gender: Female

Date: (10-09-2014 18.20)   Starr, Ima   Normal values for your age & gender
                                              ↓   ↓[Female60s]

Conventional ECG parameters (secondary automated analyses):

Heart rate (beats/min)	52		
PR interval duration (ms)	156	<	200
P-wave duration (ms)	106	<	127
QRS axis (degrees)	66	>	-6
QRS interval (ms)	80	<	105
QTc interval (ms)	390	<	474
12-lead QRS voltage (mV)	10.66	>	8.87
Cornell QRS voltage (mV)	0.37	<	1.71

Conventional 12-lead ECG Findings:
The heart rhythm is normal sinus.

Conventional ECG Impression:
The resting conventional 12-lead ECG is within normal or acceptable limits.

ADVANCED ECG (A-ECG) RESULTS AND SCORE REPORT

Note: the A-ECG test analyzes hundreds of advanced ECG parameters, but only those parameters proven to work as the "best diagnostic teams" in our databases and studies are actually incorporated into A-ECG Scores. While the results of some individual parameters of interest are shown below, the more crucial results are those of the final Score(s).

Date: (10-09-2014 18.20)	Starr, Ima	Normal values for your age & gender
	↓	↓[Female60s]
3-Dimensional (3D) ECG (via Kors' transform):		
Spatial Mean QRS-T angle (deg.)	34	< 82
Spatial Peaks QRS-T angle (deg.)	16	< 57
Spatial Ventricular Activation Time (ms)	43	< 52
Z-lead QRS integral above 5 Hz (mV*ms)	-3.40	< 14.48
3D QRS magnitude@20 ms (mV)	0.089	< 0.958
Spatial Ventricular Gradient (SVG, mV*ms)	0.072	> 0.035
Elevation angle of SVG, horiz. plane (deg.)	40	> 30
X-lead area of T-wave (mV*ms)	20.6	> 10.8
Sagittal direction of QRS@30 ms (deg.)	142	> 40
Waveform Complexity (by singular value decomposition):		
Complexity ("PCA") Ratio of T wave (%)	14	< 30
Intradipolar Ratio (IDR) of T-wave (%)	0.243	< 1.153
QRS Wave Nondipolar Voltage Sum (mV)	0.56	< 1.33
First Eigenvectors QRS-T angle (deg.)	21	< 62
Polar QRS Eigenvector "C" (mV)	0.091	< 0.266
T-wave Dipolar Voltage Sum (mV)	8.77	> 4.04
QT Interval Variability (QTV, via algorithm of Starc and Schlegel):		
QTV Index (QTVI, lead II, units)	-2.15	< -0.97
Index of unexplained QTV (lead V5, units)	0.76	< 1.39
RR interval Variability (RRV) by Lomb periodogram and Detrended Fluctuation Analysis:		
Ln High Frequency Power (Ln ms^2/Hz)	5.68	> 3.00
Ln Low Frequency Power (Ln ms^2/Hz)	6.12	> 3.26
Alpha 2 (fractal units)	1.02	< 1.36

Impression of individual advanced ECG parameters:

All individual parameters are normal or essentially normal for age and gender

A-ECG SCORE(S) RESULTS (LOGISTIC):

Percent Similarity to:

| 10-s ECG:	Healthy Population:	**>98%**	Diseased Population:	**<2%**
5-min ECG:	Healthy Population:	**>98%**	Diseased Population:	**<2%**
			LVSD score: **negative**	

A-ECG SCORE(S) IMPRESSION:

A-ECG result most resembles that of a person with a confirmed or presumed "healthy" heart
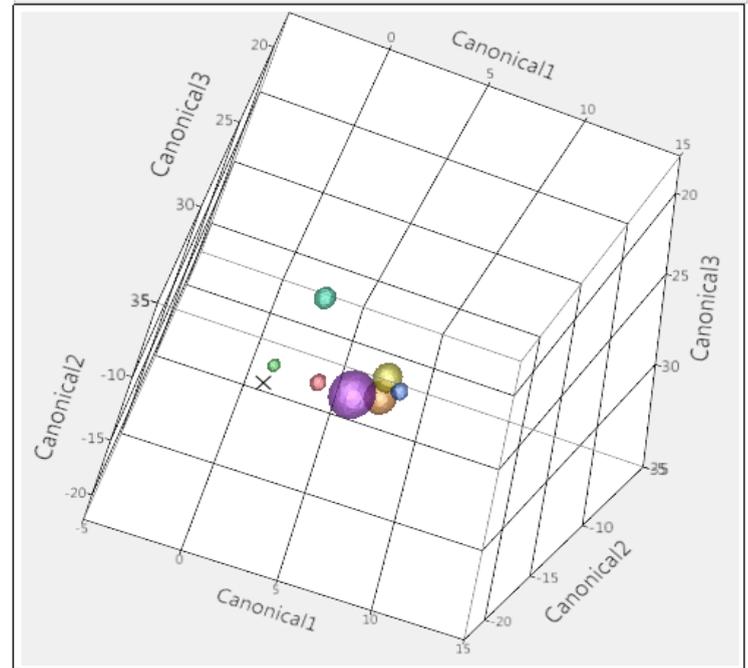
A-ECG DISCRIMINANT TEST FOR HEART DISEASES

Color Code: Small Green Circle = Healthy Population; Red Circle = Coronary Artery Disease (CAD) and/or Coronary Microvascular Disease Population; Purple Circle = Left Ventricular Hypertrophy (LVH) or Enlargement (LVE) Population; Blue Circle = Hypertrophic Cardiomyopathy (HCM) Population; Other Circles = Non-Ischemic Cardiomyopathy (NICM), Ischemic Cardiomyopathy (ICM), and Long QT Syndrome (LQTS) Populations, respectively.
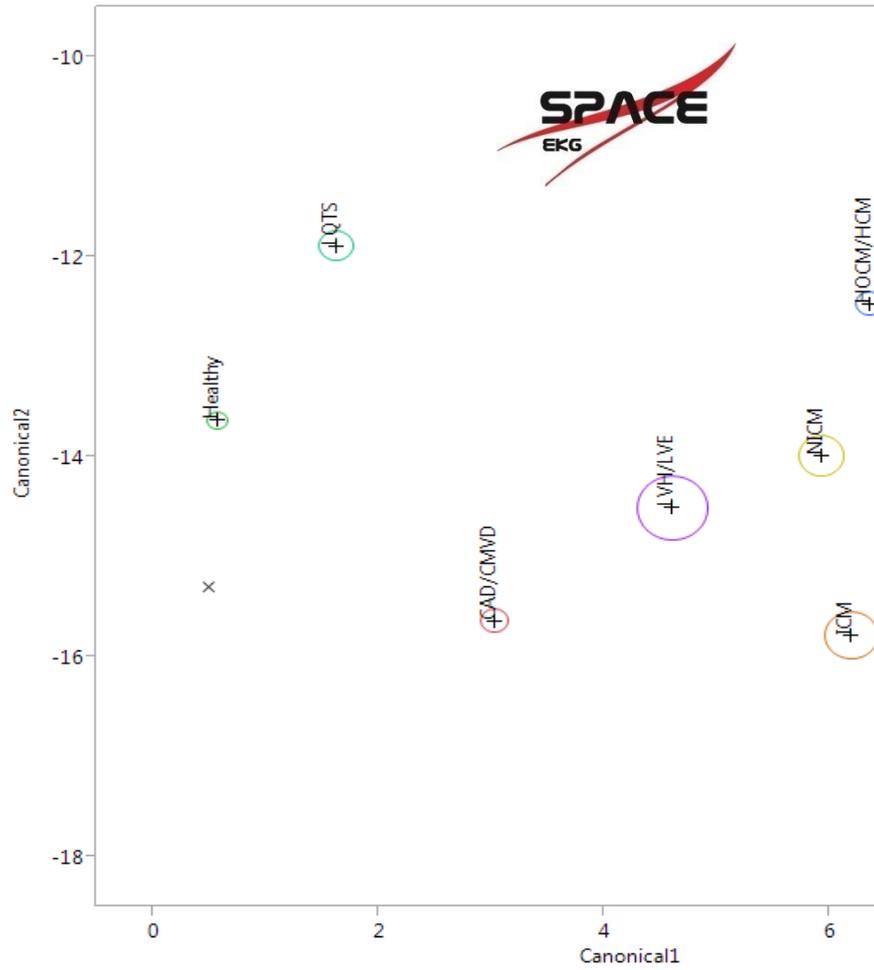
Detailed Result for Marker ✕ (above) =   **Ima**   **Starr**   (10-09-2014 18.20)

Percent Similarity to: Healthy Population: **>93%**

IMPRESSION:

Discriminant result most resembles that of a person with a confirmed or presumed healthy heart

A-ECG DISCRIMINANT TEST FOR ELECTROCARDIOGRAPHIC VS. CHRONOLOGICAL AGE

Code: 10s, 20s, 30s, 40s, 50s, 60s, 70s circles represent known healthy populations in that given decade of life. See previous page for the explanations of the other circles.

Canonical Plot
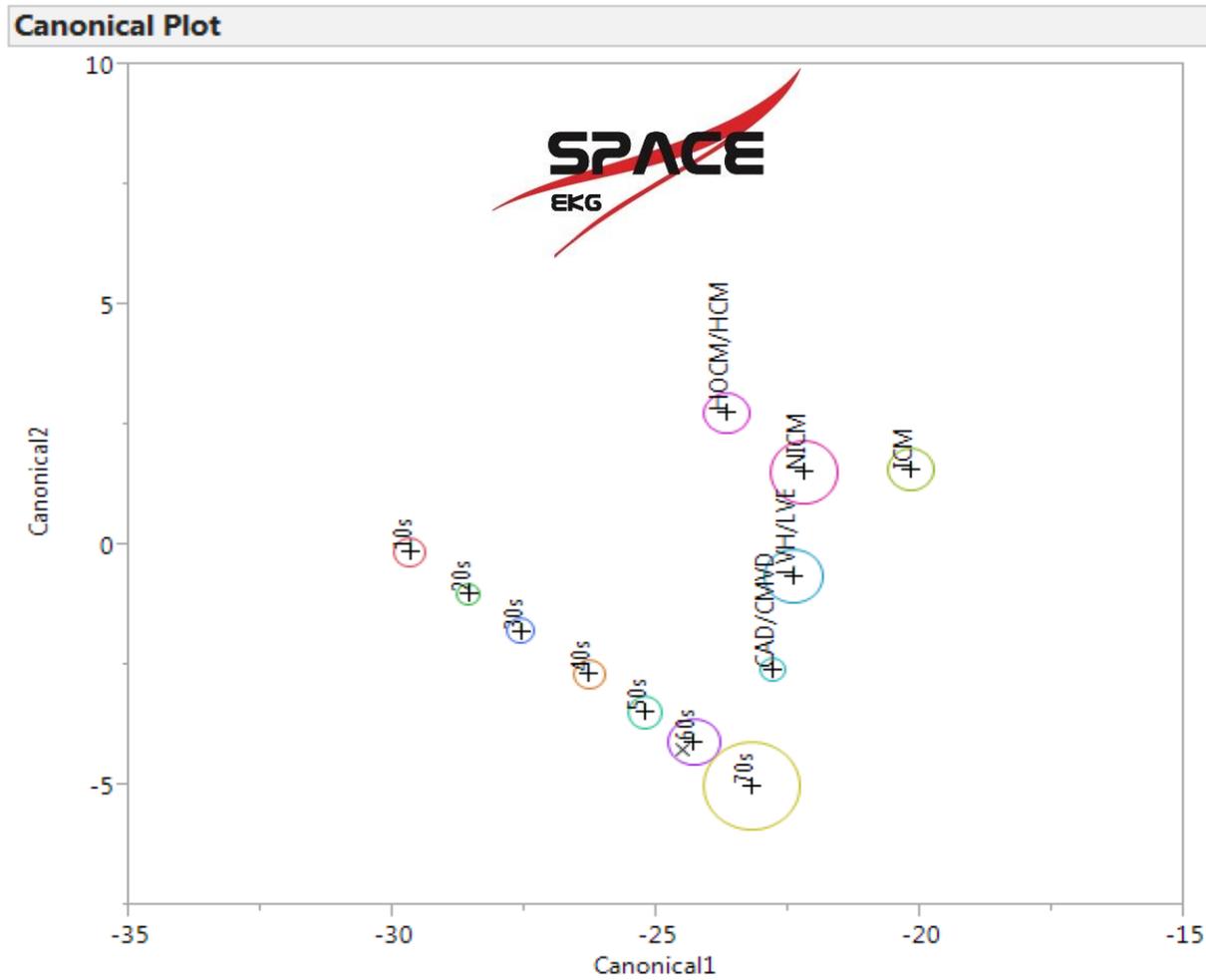
Detailed Result for Marker ✕ (above) =		**Ima**	**Starr**	(10-09-2014 18.20)
		True Chronological Age provided at test time =		61 .7 years
	Percent Similarity to:			
	10s Decade	**%**		
	20s Decade	**%**		
	30s Decade	**%**		
	40s Decade	**%**		
	50s Decade	**45 %**		
	60s Decade	**55 %**		
	70s Decade	**%**		
	Other:	**%**		

Discriminant results most closely resemble those from a person in their: **60s Decade**

Exact predicted heart age from more robust combined Bayesian approach: **58 .2 years**

IMPRESSION: **Electrocardiographic Age is less than Chronological Age**

Impression (Summary):

Overall results are within normal limits for age and gender
Electrocardiographic Age is less than Chronological Age

Recommendations:

For Referring or Other Physician:
If patient or subject is completely asymptomatic, then further testing is not recommended at this time.
Suggested intervals for repeating A-ECG Tests, if/when desired, are noted below.

For Patient:
If you are experiencing signs or symptoms that your doctor believes may relate to your coronary arteries or heart,
    then he/she may recommend further testing to rule out one or more types of heart disease.
Note that insurers may not cover expenses for additional testing if you have no symptoms.
    Consult your personal health insurer for further information.
While studies show that A-ECG Scores can be >90% accurate, remember that no screening test is 100% accurate.

General suggestions to patients regarding repeat testing:
If you have no symptoms, consider repeating A-ECG testing at most annually only if one or more of the following apply:
    You are age>45 (men) or >50 (women); and/or
    You work in a hazardous profession (police/fireman, pilot, etc) and are age>35 (men) or >40 (women); and/or
    You have diabetes or high blood pressure or smoke cigarettes or are obese; and/or
    You have a strong family history of premature coronary artery disease or sudden cardiac death; and/or
    You have a strong family history of a genetic cardiomyopathy or cardiac ion channelopathy, and/or
    Your doctor believes that following your A-ECG annually is advised for some other reason.
If you're an adult and none of the above apply, suggest repeating A-ECG Screening every five years.

If you have or develop symptoms, consult your personal physician first before repeating any A-ECG Test

For further scientific information on A-ECG tests, see: http://www.biomedcentral.com/1471-2261/10/28
For further information on A-ECG age scores, see: http://www.mdpi.com/2075-4426/4/1/65