



Dallas Heart Study Phenotype List

7/25/2019

✓ Available NA: Test performed but data not assigned

■ Coming Soon X: Not done

	DHS 1 Status	DHS 2 Status	Notes
ANALYTES			
<u>Biomarkers & Other:</u>			
Adiponectin	✓	x	
ADMA	✓	x	
Alanine	✓	✓	
Aldosterone	✓	x	
Amyloid β 1-40	x	✓	Requires Approval from James de Lemos, M.D.
ANA	✓	x	
Angiogenin	✓	x	
apo(A)	✓	x	
Arginine	✓	x	
Arylesterase (AE)	✓	x	Requires approval from Robert Haley, MD & John Teiber, PhD
Beta-Crosslaps	✓	x	
BNP	✓	x	
BNP (3-108)	✓	x	
C Peptide	✓	✓	Requires Approval from James de Lemos, M.D.
Cardiotrophin-1	✓	x	
Caspase 3	✓	x	
CCL11	✓	x	
CD40 Ligand	✓	x	

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Cholesterol Efflux Capacity	✓	✓	Requires approval from Anand Rohatgi, MD
CKMB	✓	x	
CRP	✓	✓	
CXCL1	✓	x	
CXCL10	✓	x	
CXCL2	✓	x	
Cystatin C	✓	x	
D-Dimer	✓	x	
Diazoxonase (DZN)	✓	x	Requires approval from Robert Haley, MD & John Teiber, PhD
ECM1	✓	x	
ESAM	✓	x	
Ferritin	✓	✓	Requires Approval from James de Lemos, M.D.
FGF21	✓	x	
Folate Receptor Alpha C	✓	x	
Fructosamine	✓	x	
FSH	✓	x	
Galectin 3	✓	✓	Requires Approval from James de Lemos, M.D.
GDF-15	✓	x	
HbA1c	x	✓	
High Sensitive Troponin-I	✓	✓	Requires Approval from James de Lemos, M.D.
Homoarginine	✓	x	
hsctnt	✓	✓	
ICAM-1	✓	x	
ICAM-1 (soluble)	✓	x	

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IgA	x	√	Requires approval from David Russell, MD
IgG	x	√	Requires approval from David Russell, MD
IL-18	√	x	
IL1AP	√	x	
IL-6	√	x	
Insulin	√	√	
IsoLeucine	√	√	
Leucine	√	√	
Lp(a)	√	x	
LPLUNC1	√	x	
LTBR	√	x	
Lumican	√	x	
MCP-1	√	x	
Mesothelin	√	x	
MIP3	√	x	
MMP-9	√	x	
MPO	√	x	
Myoglobin	√	x	
Neuropilin 1	√	x	
NGAL	√	x	
NMR GlycA	√	√	Requires approval from Anand Rohatgi, MD
NMR Lipoprofile	√	x	
NMR Lipoprofile (LP4)	√	√	
NMR LP4 Apo A-1	√	√	

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	DHS 1 Status	DHS 2 Status	Notes
NMR LP4 Apo B	√	√	
NRP-1	√	x	
NT-ProBNP	√	√	
NTProCNP	√	x	
Olink CARDIOVASCULAR III(v.6112) Panel	x	√	Limited dataset. Requires approval from James de Lemos, M.D.
Olink INFLAMMATION(v.3012) Panel	x	√	Limited dataset. Requires approval from James de Lemos, M.D.
OPG	√	x	
Osteopontin	√	x	
Oxidized LDL	√	√	
PAPPA	√	x	
PAPP-A Free	√	x	
Paraoxonase (PXN)	√	x	Requires approval from Robert Haley, MD & John Teiber, PhD
PCSK9	√	√	
Pentraxin 3	√	x	
Periostin	√	x	
PGRP-S	√	x	
PIGR	√	x	
PLA2	√	x	
PLGF	√	x	
PSAP-B	√	x	
PTH	√	√	
Q isoenzyme	√	x	Requires approval from Robert Haley, MD & John Teiber, PhD
R isoenzyme	√	x	Requires approval from Robert Haley, MD & John Teiber, PhD
Rage	√	x	

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	DHS 1 Status	DHS 2 Status	Notes
SDMA	√	x	
S-Endoglin	√	x	
SHBG	√	x	
sRAGE	√	x	
ST2	√	x	
Syndecan-1	√	x	
Testosterone, Free	√	x	
Testosterone, Total	√	x	
TNFR1A	√	x	
Total Thyroxin(T4)	√	√	Requires Approval from James de Lemos, M.D.
Troponin T	√	√	
Troy	√	x	
Valine	√	√	
VCAM	√	x	
VCAM-1	√	x	
VEGF-R1	√	x	
Vitamin D	√	√	
WAP4C	√	x	
<u>CBC:</u>			
Absolute Basophils	x	√	
Absolute Eosinophils	x	√	
Absolute Lymphocytes	x	√	
Absolute Monocytes	x	√	
Absolute Neutrophils	x	√	

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	DHS 1 Status	DHS 2 Status	Notes
Basophils	x	√	
Eosinophils	x	√	
Hematocrit	x	√	
Hemoglobin	x	√	
Lymphocytes	x	√	
MCH	x	√	
MCHC	x	√	
MCV	x	√	
Monocytes	x	√	
Neutrophils	x	√	
Platelet Count	x	√	
RBC Count	x	√	
RDW	x	√	
WBC Count	x	√	

Chem 20:

Albumin	√	√	
ALP	√	√	
ALT	√	√	
AST	√	√	
BUN	√	√	
Ca	√	√	
Chloride	√	√	
CK	√	√	
CO2	√	√	

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	DHS 1 Status	DHS 2 Status	Notes
Creatinine	√	√	
Fe	√	√	
GGT	√	√	
Glucose	√	√	
K	√	√	
Mg	√	√	
Na	√	√	
P	√	√	
Total Bilirubin	√	√	
Total Protein	√	√	
Uric Acid	√	√	
<u>Grundy Lab Lipids:</u>			
HDL	√	√	
LDL	√	√	
Total Cholesterol	√	√	
Triglycerides	√	√	
VLDL	√	√	
<u>Quest/GCRC Lipids:</u>			
HDL	√	√	
LDL	√	√	
Total Cholesterol	√	√	
Triglycerides	√	√	
<u>Sterols</u>			
Requires approval from David Russell, MD			

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	DHS 1 Status	DHS 2 Status	Notes
14-demethylstanosterol	x	√	
22R-hydroxycholesterol	x	√	
24,25-dihydrolanosterol	x	√	
24,25-epoxy-cholesterol	x	√	
24-oxocholesterol	x	√	
24S-hydroxy-cholesterol	x	√	
24S-hydroxy-cholesterol Normalized	x	√	
25-hydroxy-cholesterol	x	√	
25-hydroxyvitamin D2 / 25-hydroxyergocalciferol	x	√	
25-hydroxyvitamin D3 / 25-hydroxycholecalciferol / cal	x	√	
25-hydroxyvitamin D3 Normalized	x	√	
27-hydroxy-cholesterol	x	√	
27-hydroxy-cholesterol normalized	x	√	
4β-hydroxy-cholesterol	x	√	
5,6a epoxy-cholesterol	x	√	
5,6β-epoxy-cholesterol	x	√	
5a-hydroxycholesterol	x	√	
7a-hydroxy-cholesterol	x	√	
7a-hydroxy-cholesterol Normalized	x	√	
7-dehydrocholesterol	x	√	
7-oxo-cholesterol	x	√	
7β,27-dihydroxycholesterol	x	√	
7β,27-dihydroxycholesterol Normalized	x	√	
8-Dehydrocholesterol	x	√	

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	DHS 1 Status	DHS 2 Status	Notes
Campesterol	√	√	
Cholestenone	x	√	
Cholesterol	x	√	
Clerosterol	x	√	
Desmosterol	x	√	
Dihydrocholesterol	x	√	
Dihydro-sitosterol	x	√	
Lanosterol	x	√	
Lathosterol	√	√	
Sitosterol	√	√	
Zymosterol	x	√	

Urine:

Microalbumin	√	√	
Urine Creatinine	√	√	
Urine Potassium	√	√	
Urine Sodium	√	√	

DEMOGRAPHICS

Age at visit	√	√	
Ethnicity	√	√	
Race	√	√	
Sex	√	√	

GENOTYPE DATA

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	DHS 1 Status	DHS 2 Status	Notes
Ancestry	√	NA	
Genotype Data	√	NA	Please contact the DHS Data Coordinating Center with one or more of the following information: 1) Actual gene name, amino acid change & position 2) Chromosome & position 3) Ref seq ID
Telomere Length	√	√	

IMAGING

Abdominal MRI:

Intra-abdominal fat	√	x
Intra-peritoneal fat	√	x
Retroperitoneal fat	√	x
Subcutaneous fat	√	x

Acoustic Cardiogram (3 readings):

Requires approval from Mark Drazner, MD

Acoustic LVH	x	√
Electromechanical Activation Time	x	√
Left Ventricular Systolic Time	x	√
PR Interval	x	√
QRS Duration	x	√
S3 Strength	x	√
S4 Strength	x	√
Vent Rate	x	√

Aortic MRI:

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	DHS 1 Status	DHS 2 Status	Notes
Abdominal Aorta % wall area change	√	x	
Abdominal Aorta Chord Wall Thickness	√	x	
Abdominal Aorta Mean Wall Thickness	√	x	
Abdominal Aorta Segment Wall Thickness	√	x	
Aortic compliance	√	x	
Aortic plaque	√	NA	
Aortic pulse wave velocity	√	x	
Aortic wall area	√	x	
Aortic wall thickness	√	x	
Wall Mass	x	√	
Wall Volume	x	√	
<u>Brain MRI:</u>			
Atrophy	x	√	
CSF	x	√	
Free Surfer Data (Regional Brain Data)	x	√	
Grey Matter	x	√	
Hippocampal volume (left and right)	x	√	
Total brain volume	x	√	
Total cranial volume	x	√	
White matter hyperintensities	x	√	
<u>Cardiac MRI:</u>			
3C end systolic time	x	NA	
3C MVO time	x	NA	
4C end systolic time	x	NA	

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	DHS 1 Status	DHS 2 Status	Notes
4C MVO time	x	NA	
Area length 2c left atrium	√	NA	
Area Length 4C Left Atrium	√	NA	
Flow	x	■	
Left Atrial Max Volume	√	√	Limited dataset available. Requires approval from Mark Drazner, MD & Sonia Garg, MD
LV Concentricity	√	√	
LV ejection fraction	√	√	
LV end diastolic volume	√	√	
LV end systolic volume	√	√	
LV end-diastolic long axis length 4C	x	NA	
LV mass	√	√	
LV Wall Thickness (Circle Method)	√	√	Requires approval from Mark Drazner, MD & Sonia Garg, MD
LV Wall Thickness (Radii Method)	√	√	Requires approval from Mark Drazner, MD & Sonia Garg, MD
LVH by BSA	√	√	
Mean Wall Thickness	x	√	
MR absolute rotation	x	■	
MR relative rotation	x	■	
MR strain & strain rate	x	■	
Percent tag persistence	x	■	
Posterior wall thickness 3C view	x	■	
Septal wall thickness 3C view	x	■	
Stroke volume	x	√	
Tagged end systolic phase number	x	■	

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	DHS 1 Status	DHS 2 Status	Notes
<u>Carotid MRI</u>			
Wall thickness (6 slices, 24 segments)	x	√	Requires Approval from Jarett Berry, MD
CT (EB DHS-1, MD DHS-2):			
Aortic valve calcification	√	x	
Calcium Mass	NA	NA	
Coronary calcium score	√	√	
Coronary calcium volume	√	√	
<u>DEXA:</u>			
% body fat	√	√	Comparable data available. V13.4.2
Femoral Neck Bone Mineral Density	x	√	
Hip Bone Mineral Density	x	√	
Lean body mass	√	√	Comparable data available. V13.4.2
Regional BMD	√	√	Comparable data available. V13.4.2
Regional Lean Mass	√	√	Comparable data available. V13.4.2
Regional Mass	√	√	Comparable data available. V13.4.2
Spine Bone Mineral Density	x	√	
Whole body BMD	x	√	Comparable data available. V13.4.2
Whole Body Mass	x	√	Comparable data available. V13.4.2
Wrist Bone Mineral Density	x	√	
<u>ECG:</u>			
Heart rate	√	√	
Heart rhythm	√	√	
Intervals (PR, QRS, QT)	√	√	

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	DHS 1 Status	DHS 2 Status	Notes
LVH from ECG	√	√	
Wave Amplitudes	√	√	
Waveforms	√	√	
<u>Liver MR Spectroscopy:</u>			
% Liver Fat	√	√	
T2 Integral	√	√	
Water Integral	√	√	

MRI:

MRI Blood Pressure	√	x	
<u>Pelvic MRI:</u>			
Ovarian Size	√	x	
Ovarian Structure	√	x	

OTHER CLINIC MEASUREMENTS

Accelerometer- 7 day wear:

Requires approval from Julia Kozlitina, PhD

# Valid Days of Wear	x	√	
Mean Activity Count (AC) per minute	x	√	

Ankle-Brachial Index:

Left Dorsalis Pedis	x	√	
Left Posterior Tibial SBP	x	√	
Left Toe SBP	x	√	
Right Dorsalis Pedis	x	√	
Right Posterior Tibial SBP	x	√	
Right Toe SBP	x	√	

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	DHS 1 Status	DHS 2 Status	Notes
<u>Blood Pressure & Body Size:</u>			
BMI	√	√	
BP, pulse x 5 at Clinic visit	√	√	
BP, pulse x 5 at home phlebotomy	√	NA	
BP, pulse x 5 at home survey	√	NA	
BSA	√	√	
Height	√	√	
Hip Circumference	√	√	
Waist Circumference	√	√	
Weight	√	√	
<u>Family History:</u>			
Family History- Breast Cancer	√	√	
Family History- CAD	x	√	
Family History- Diabetes	√	√	
Family History- Heart Failure	√	√	
Family History- HTN	√	√	
Family History- MI	√	x	
Family History- Osteoporosis	√	x	
Family History- Stroke	√	√	
<u>Medication List Data:</u>			
OTC Meds, vitamins & supplements	√	√	
Prescription medications	√	√	
<u>MESA Physical Activity:</u>			

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	DHS 1 Status	DHS 2 Status	Notes
Total Intentional MET min/week	x	√	
Total Intentional Moderate MET min/week	x	√	
Total Intentional Vigorous MET min/week	x	√	
Total Moderate/Vigorous MET min/week (all activities)	x	√	
Total TV Time	x	√	
<u>Survey:</u>			
Cardiovascular Disease History	√	√	
Depression Index (QIDS)	x	√	
Education & Income	√	√	
Family History	√	√	
Health Beliefs	√	√	
Medical Coverage	√	√	
Medical History	√	√	
MESA Physical Activity	x	√	
MOCA Cognitive Exam	x	√	Requires collaboration with Heidi Rossetti, PhD
Neighborhood/Discrimination	√	√	
<u>Treadmill Test (4 Minute Walk Test)</u>			
HR over 4 Treadmill speeds	x	√	
V02 Max	x	√	

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