

SUPPLEMENTAL MATERIAL

Table S1. Baseline Characteristics of Participants by Evidence of Incident Heart Failure Over Time in the Look AHEAD Study.

	Entire Sample	No Incident Heart Failure	Incident Heart Failure	P Value
N	4095	3978	117	...
Age, years	58.3 (6.6)	58.2 (6.6)	61.2 (6.4)	<0.001
Women, %	61.9	62.3	49.6	0.005
Race/ethnicity, %				0.318
White	64.6	64.7	64.1	
Non-Hispanic Black	17.1	16.9	22.2	
Hispanic	14.8	14.9	10.3	
Other/mixed	3.5	3.5	3.4	
Treatment assignment, %				0.238
Diabetes Support and Education	50.2	50.0	55.6	
Intensive Lifestyle Intervention	49.8	50.0	44.4	
Body mass index, kg/m ²	36.0 (5.9)	36.0 (5.9)	37.6 (6.5)	0.003
Waist circumference, cm	113.6 (14.1)	113.5 (14.0)	119.7 (15.3)	<0.001
Current smoking, %	4.0	4.0	6.0	0.268
Alcohol drinking, %	32.7	32.8	29.9	0.518
Systolic blood pressure, mm Hg	129.0 (16.9)	128.9 (16.8)	134.1 (18.1)	0.001
Diastolic blood pressure, mm Hg	70.4 (9.5)	70.4 (9.5)	71.2 (9.7)	0.387
Hypertension, %	85.6	85.3	93.2	0.018
Use of antihypertensive drug, %	70.9	70.4	86.3	<0.001
Use of ACEI/ARB, %	56.9	56.6	67.8	0.017
Use of beta blocker, %	17.0	16.5	35.0	<0.001
Hemoglobin A _{1C} , %	7.3 (1.2)	7.2 (1.2)	7.6 (1.2)	0.004
Duration of diabetes, years	5.0 (2.0-9.0)	5.0 (2.0-9.0)	6.0 (3.0-11.0)	0.012
Use of insulin, %	13.9	13.5	25.6	0.001
Use of antidiabetic medication, %				
Total cholesterol, mg/dL	193.1 (36.8)	193.3 (36.7)	187.9 (38.6)	0.123
HDL-cholesterol, mg/dL	43.9 (11.9)	44.0 (12.0)	41.7 (10.4)	0.038
LDL-cholesterol, mg/dL	114.4 (31.9)	114.5 (31.9)	109.3 (32.7)	0.081
Total/HDL-cholesterol Ratio	4.7 (1.5)	4.7 (1.5)	4.8 (1.5)	0.443
eGFR, mL/min/1.73m ²	91.1 (15.8)	91.2 (15.7)	87.5 (18.2)	0.012
Albumin-Creatinine Ratio	0.008 (0.005-0.017)	0.007 (0.005-0.011)	0.018 (0.007-0.057)	<0.001
MNSI Score	1 (0-3)	1 (0-3)	2 (1-3)	0.009
Nephropathy, %	18.2	17.5	41.0	<0.001
Retinopathy, %	6.9	6.8	11.1	0.071
Neuropathy, %	16.6	16.4	23.1	0.057
Microvascular disease, %	34.8	34.0	62.4	<0.001

Data are mean (standard deviation), median (interquartile range), or proportion (%) as appropriate.

AHEAD indicates Action for Health in Diabetes; ACE, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; eGFR, estimated glomerular filtration rate; HDL, high-density lipoprotein; LDL, low-density lipoprotein; MNSI, Michigan Neuropathy Screening Instrument

Table S2. Hazard Ratios for Incident Heart Failure by Microvascular Disease Status Stratified by Race/Ethnicity in the Look AHEAD Study.

Hazard ratio (95% CI)	Nephropathy		Retinopathy		Neuropathy		Microvascular disease	
	Absent	Present	Absent	Present	Absent	Present	Absent	Present
White (n = 2647)								
<i>Model 1</i>	Reference	2.57 (1.60-4.12)‡	Reference	1.95 (0.97-3.92)	Reference	1.94 (1.17-3.21)*	Reference	3.26 (2.03-5.23)‡
<i>Model 2</i>	Reference	1.94 (1.19-3.18)†	Reference	1.70 (0.82-3.55)	Reference	1.85 (1.11-3.09)*	Reference	2.82 (1.72-4.61)‡
<i>Model 3</i>	Reference	1.90 (1.16-3.12)*	Reference	1.69 (0.81-3.53)	Reference	1.76 (1.05-2.95)*	Reference	2.71 (1.65-4.46)‡
Nonwhite (n = 1448)								
<i>Model 1</i>	Reference	3.35 (1.81-6.18)‡	Reference	1.01 (0.36-2.85)	Reference	1.05 (0.44-2.49)	Reference	2.60 (1.40-4.83)†
<i>Model 2</i>	Reference	2.64 (1.38-5.05)†	Reference	0.80 (0.28-2.32)	Reference	0.98 (0.41-2.34)	Reference	2.16 (1.14-4.09)*
<i>Model 3</i>	Reference	3.37 (1.76-6.44)‡	Reference	0.69 (0.24-2.01)	Reference	0.85 (0.35-2.09)	Reference	2.31 (1.21-4.41)*

Model 1 adjusted for age, sex and randomization arm. Model 2 includes variables in model 1 with further adjustment for body mass index, current smoking (yes/no), alcohol drinking (oz/week), systolic blood pressure, use of antihypertensive medications (yes/no), ratio of total to high-density lipoprotein cholesterol, hemoglobin A_{1c}, duration of diabetes. Model 3 includes variables in model 2 with additional adjustment for interval development of coronary artery disease (as a time-dependent covariate).

AHEAD indicates Action for Health in Diabetes; CI, confidence interval.

* $P < 0.05$, † $P < 0.01$, ‡ $P < 0.001$