

Supplemental data:

Supplemental Table 1: Demographic, clinical, imaging and biochemical characteristics of study population at baseline exam stratified by sex- specific quartiles of visceral adipose tissue (VAT)

Supplemental Table 2: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer

Supplemental Table 3: Number of incident cancers and rates on incident cancer at 12 years in quartiles of visceral adipose tissue (VAT), overall and in sex and race subgroups

Supplemental Table 4: Cox proportional hazard models of lower body fat (LBF) and incident cancer

Supplemental Table 5: Cox proportional hazard models of Subcutaneous Adipose Tissue (SAT) and Liver Fat and incident cancer

Supplemental Table 6: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in Males

Supplemental Table 7: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in Females

Supplemental Table 8: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in Whites

Supplemental Table 9: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in Non- whites

Supplemental Table 10A: Cox proportional hazard models of Waist Circumference (WC) and Waist Hip Ratio (WHR), and incident cancer

Supplemental Table 10B: Cox proportional hazard models of Body mass index (BMI) and incident cancer

Supplemental Table 10C: Cox proportional hazard models of Triglyceride- waist circumference and incident cancer

Supplemental Table 11: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer including cancer cases diagnosed in the 1 year censoring period

Supplemental Table 12: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer excluding lung and esophageal cancer cases

Supplemental Table 13: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer excluding lung and esophageal cancer cases, and hematological malignancies

Supplemental Table 14: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer excluding breast and prostate cancer cases

Supplemental Table 15: Cox proportional hazard models of visceral adipose tissue (VAT) and incident obesity- associated cancer

Supplemental Table 16: Cox proportional hazard models of visceral adipose tissue (VAT) and incident visceral cancers

Supplemental Table 17: Cox proportional hazard models of Lower Body Fat (LBF) and incident cancer in Males

Supplemental Table 18: Cox proportional hazard models of Lower Body Fat (LBF) and incident cancer in Females

Supplemental Table 19: Levels of liver fat in racial groups, and number of incident cancers and rates of incident cancer at 12 years in each quartile of race-adjusted liver fat

Supplemental Table 20: Cox proportional hazard models of Liver fat and incident cancer in Racial groups

Supplemental Figure: Flow Diagram of the Dallas Heart Study Cohort

Supplemental Table 1: Demographic, clinical, imaging and biochemical characteristics of study population at baseline exam stratified by sex- specific quartiles of visceral adipose tissue (VAT)
(data are reported as median (interquartile range) or number (%), as appropriate)

Characteristic	Overall (n=2627)	Quartile 1 (n=656)	Quartile 2 (n=657)	Quartile 3 (n=658)	Quartile 4 (n=656)	P-value of trend
VAT characteristics						
VAT range - Overall (kg)	2.06 (1.44, 2.75)	1.08 (0.86, 1.27)	1.71 (1.51, 2.14)	2.26 (2, 2.8)	3.27 (2.68, 3.73)	<.01
VAT range - Females (kg)		0.44- 1.27	1.28- 1.75	1.75- 2.31	2.31- 5.16	<.01
VAT range – Males (kg)		0.45- 1.76	1.76- 2.51	2.51- 3.21	3.22- 6.95	<.01
Clinical characteristics						
Age (years)	43 (36, 51)	39 (33, 47)	42 (36- 49)	45 (37- 52)	47 (40-54)	<.01
Male	1209 (46.0%)	302 (46.0%)	302 (46.0%)	303 (46.0%)	302 (46.0%)	.99
Race						
Black	1293 (49.2%)	376 (57.3%)	352 (53.6%)	308 (46.8%)	257 (39.2%)	<.01
White	822 (31.3%)	204 (31.1%)	171 (26%)	205 (31.2%)	242 (36.9%)	<.01
Hispanic	456 (17.4%)	60 (9.1%)	118 (18%)	132 (20.1%)	146 (22.3%)	<.01
Other	56 (2.1%)	16 (2.4%)	16 (2.4%)	13 (2%)	11 (1.7%)	.28
Smoking	730 (27.8%)	238 (36.4%)	183 (27.9%)	159 (24.2%)	150 (22.9%)	<.01
Alcohol use	1836 (70.0%)	496 (75.8%)	462 (70.4%)	444 (67.6%)	434 (66.3%)	<.01
Diabetes mellitus	282 (10.8%)	24 (3.7%)	48 (7.3%)	78 (11.9%)	132 (20.1%)	<.01
Hypertension	852 (32.9%)	109 (16.8%)	204 (31.5%)	236 (36.4%)	303 (47%)	<.01
Hyperlipidemia	355 (13.2%)	45 (6.9%)	81 (12.3%)	96 (14.6%)	123 (18.8%)	<.01
Physical activity (MET-min/wk)	145 (0, 599)	213 (0, 735)	239 (0, 720)	106 (0, 533)	67.5 (0, 360)	<.01
Family history of cancer	583 (22.2%)	120 (18.3%)	141 (21.5%)	155 (23.6%)	167 (25.5%)	<.01
Biochemical characteristics						
High-sensitivity C-reactive protein (mg/dL)	2.7 (1.2, 6.3)	1.2 (0.5, 3.3)	2.3 (1.1, 5)	3.35 (1.65, 7.5)	4.6 (2.2, 10)	<.01
Interleukin-6 (pg/mL)	16.97 (0.0-35.76)	16.85 (0, 35.36)	15.41 (0, 34.04)	18.79 (0, 39.72)	17.02 (0, 33.85)	.40
Adiponectin (ug/mL)	14.42 (9.60-21.43)	16.51 (10.86, 25.49)	15.03 (9.66, 22.4)	13.36 (8.98, 20.22)	13.16 (9.38, 18.57)	<.01
Leptin (ng/mL)	11.90 (5.2, 25.3)	5.3 (1.9, 12.1)	11 (5.1, 23.4)	16.05 (7.05, 29.45)	21 (10.7, 35.9)	<.01
Insulin (uIU/mL)	12.2 (7.3, 20.1)	6.7 (4.4, 10.6)	10.7 (7.05, 16.3)	15 (9.8, 22)	19.35 (13, 26.1)	<.01
Measures of adiposity						
Body weight (kg)	82.10 (69.9-97.1)	66.22 (58.51, 74.84)	78.9 (70.31, 88.45)	87.5 (76.43, 102.06)	97.8 (86.9, 111.43)	<.01
Body mass index (kg/ m ²)	29.07 (25.21, 33.93)	23.46 (21.4, 25.97)	28.03 (25.5, 30.93)	30.63 (27.72, 35.15)	34.7 (31.03, 39.5)	<.01
Waist circumference (cm)	97 (87, 108.5)	82 (76, 88)	93.5 (88, 100)	101 (95, 110.5)	111.5 (103.5, 120.75)	<.01
Waist hip ratio	0.90 (0.84- 0.96)	0.85 (0.79, 0.9)	0.9 (0.83, 0.94)	0.92 (0.87, 0.98)	0.96 (0.9, 1)	<.01
Abdominal subcutaneous adipose tissue (kg)	4.17 (2.79, 6.26)	2.30 (1.63, 3.35)	3.97 (2.98, 5.39)	4.97 (3.68, 7.00)	6.26 (4.36, 8.69)	<.01
Liver fat (%)	3.60 (2.11, 6.64)	1.98 (1.22, 2.92)	2.97 (2, 4.49)	4.41 (2.83, 7.23)	7.42 (4.17, 13.03)	<.01
Lower body fat (kg)	8.69 (6.15, 11.91)	6.29 (4.14, 8.94)	8.59 (6.26, 11.45)	9.45 (6.92, 12.52)	10.66 (7.7, 14.43)	<.01
Only women						
	(n= 1418)	(n=354)	(n=355)	(n=355)	(n=354)	
Postmenopausal state	488 (34.7%)	84 (24.1%)	109 (30.7%)	131 (37.1%)	164 (46.6%)	<.01
Oral contraceptive use	1079 (76.3%)	279 (79%)	282 (79.4%)	273 (77.1%)	245 (69.4%)	<.01
Hormone replacement therapy use	180 (29.5%)	24 (23.8%)	46 (31.5%)	54 (33.5%)	56 (27.6%)	.70

Supplemental Table 2: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.20 (1.06- 1.36)	1.05 (0.90- 1.22)	1.07 (0.91- 1.25)	0.94 (0.77- 1.14)
Quartile 2 (vs quartile 1)	1.08 (0.66- 1.78)	0.96 (0.58- 1.58)	1.05 (0.63- 1.74)	0.95 (0.57- 1.59)
Quartile 3 (vs quartile 1)	1.71 (1.09- 2.68)	1.32 (0.84- 2.08)	1.45 (0.91- 2.31)	1.22 (0.75- 2.00)
Quartile 4 (vs quartile 1)	1.79 (1.14- 2.80)	1.21 (0.77- 1.91)	1.31 (0.82- 2.11)	1.00 (0.58- 1.73)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis;
HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 3: Number of incident cancers and rates on incident cancer at 12 years in quartiles of visceral adipose tissue (VAT), overall and in sex and race subgroups

Population	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
	N	Cumulative % (95% CI)	N	Cumulative % (95% CI)	N	Cumulative % (95% CI)	N	Cumulative % (95% CI)
Whole cohort	30	4.6 (2.8- 6.3)	33	3.6 (2.2- 5.1)	51	6.2 (4.3- 8.1)	53	7.1 (5.1- 9.2)
Men	19	6.3 (3.8- 9.7)	16	5.3 (3.1- 8.5)	24	7.9 (5.1- 11.6)	19	6.3 (3.8- 9.7)
Women	11	3.1 (1.6- 5.5)	17	4.8 (2.8- 7.6)	27	7.6 (5.1- 10.9)	34	9.6 (6.7- 13.2)
White	9	4.4 (2.0- 8.2)	16	7.8 (4.5- 12.3)	20	9.8 (5.3- 13.5)	11	5.4 (3.4- 10.6)
Non- white	20	4.4 (2.7- 6.8)	17	3.8 (2.1- 6.2)	31	6.9 (4.5- 9.3)	43	9.5 (6.6- 12.1)

Data reported as number of incident cancers (N) and percentage (95% confidence interval)

Supplemental Table 4: Cox proportional hazard models of lower body fat (LBF) and incident cancer

LBF measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	0.93 (0.79- 1.09)	0.89 (0.72- 1.09)	0.92 (0.74- 1.13)	0.69 (0.52- 0.92)
Quartile 2 (vs quartile 1)	0.68 (0.44- 1.07)	0.63 (0.41- 1.00)	0.67 (0.43- 1.05)	0.58 (0.36- 0.91)
Quartile 3 (vs quartile 1)	0.87 (0.58- 1.31)	0.77 (0.51- 1.17)	0.82 (0.54- 1.24)	0.61 (0.39- 0.98)
Quartile 4 (vs quartile 1)	0.76 (0.49- 1.17)	0.70 (0.46- 1.08)	0.74 (0.47- 1.14)	0.43 (0.24- 0.78)

Data include both per 1-standard deviation increase in LBF and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 5: Cox proportional hazard models of Subcutaneous Adipose Tissue (SAT) and Liver Fat and incident cancer

Adiposity measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
SAT	1.13 (0.97- 1.31)	1.16 (0.97- 1.39)	1.20 (1.00- 1.43)	1.08 (0.78- 1.51)
Liver fat	0.91 (0.79- 1.06)	0.88 (0.75- 1.03)	0.98 (0.93- 0.99)	0.96 (0.93- 1.01)

Data include both per 1-standard deviation increase in SAT and liver fat; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable)

Model 2- additionally adjusted for age, race and sex

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 6: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in **Males**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.01 (0.81- 1.25)	0.85 (0.68- 1.07)	0.83 (0.65- 1.05)	0.75 (0.57- 1.01)
Quartile 2 (vs quartile 1)	0.82 (0.43- 1.60)	0.85 (0.43- 1.67)	0.84 (0.42- 1.68)	0.81 (0.40- 1.62)
Quartile 3 (vs quartile 1)	1.28 (0.70- 2.32)	0.99 (0.54- 1.82)	0.94 (0.49- 1.78)	0.85 (0.43- 1.74)
Quartile 4 (vs quartile 1)	1.00 (0.53- 1.90)	0.70 (0.35- 1.39)	0.64 (0.32- 1.28)	0.56 (0.25- 1.25)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 7: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in **Females**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.51 (1.27- 1.80)	1.33 (1.11- 1.59)	1.38 (1.15- 1.64)	1.24 (0.98-- 1.58)
Quartile 2 (vs quartile 1)	1.53 (0.72- 3.27)	1.29 (0.60- 2.75)	1.46 (0.66- 3.19)	1.27 (0.56- 2.85)
Quartile 3 (vs quartile 1)	2.45 (1.21- 4.95)	1.94 (0.96- 3.95)	2.25 (1.08- 4.67)	1.80 (0.82- 3.95)
Quartile 4 (vs quartile 1)	3.16 (1.60- 6.25)	2.19 (1.11 4.33)	2.60 (1.25- 5.35)	1.83 (0.79- 4.27)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 8: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in **Whites**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	0.98 (0.79- 1.22)	0.84 (0.63- 1.12)	0.87 (0.66- 1.16)	0.71 (0.47- 1.08)
Quartile 2 (vs quartile 1)	1.73 (0.77- 3.88)	1.50 (0.66- 3.41)	1.69 (0.72- 3.96)	1.46 (0.60- 3.52)
Quartile 3 (vs quartile 1)	2.21 (1.01- 4.82)	1.63 (0.74- 3.60)	1.78 (0.79- 4.05)	1.39 (0.56- 3.41)
Quartile 4 (vs quartile 1)	1.18 (0.50- 2.82)	0.75 (0.31- 1.85)	0.87 (0.34- 2.22)	0.54 (0.18- 1.66)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 9: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer in **Non- whites**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.35 (1.15- 1.59)	1.18 (0.98- 1.43)	1.18 (0.98- 1.45)	1.07 (0.85- 1.35)
Quartile 2 (vs quartile 1)	0.85 (0.44- 1.63)	0.71 (0.37- 1.37)	0.74 (0.38- 1.43)	0.68 (0.35- 1.32)
Quartile 3 (vs quartile 1)	1.54 (0.88- 2.71)	1.18 (0.67- 2.08)	1.26 (0.70- 2.26)	1.09 (0.59- 2.01)
Quartile 4 (vs quartile 1)	2.28 (1.39- 3.89)	1.51 (0.89- 2.58)	1.57 (0.90- 2.76)	1.26 (0.68- 2.36)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 10A: Cox proportional hazard models of **Waist Circumference (WC)** and **Waist Hip Ratio (WHR)** and incident cancer

Adiposity measure	Unadjusted model HR (95% CI)	Fully adjusted model HR (95% CI)
WC	1.23 (1.06- 1.43)	1.03 (0.74- 1.43)
WHR	1.28 (1.10- 1.50)	1.12 (0.89- 1.40)

Data per 1-standard deviation increase in adiposity measure, HR (95% CI) - hazard ratio (95% confidence interval)

Fully adjusted model adjusted for age, race, sex, smoking, alcohol, family history of cancer and body mass index

Supplemental Table 10B: Cox proportional hazard models of Body mass index (BMI) categories and incident cancer

BMI (kg/m²)	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)
BMI 25-29.9 (vs BMI 18.5- 24.9)	0.90 (0.59- 1.39)	0.81 (0.53- 1.24)	0.88 (0.58- 1.36)
BMI 30-34.9 (vs BMI 18.5- 24.9)	1.09 (0.71- 1.71)	0.97 (0.62- 1.52)	1.04 (0.66- 1.64)
BMI 35- 39.9 (vs BMI 18.5- 24.9)	1.17 (0.75- 1.81)	1.12 (0.72- 1.75)	1.24 (0.78- 1.97)

Data comparing BMI categories;

HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted

Model 2- additionally adjusted for age, sex and race

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Supplemental Table 10C: Cox proportional hazard models of Triglyceride- waist circumference (TG-WC) index and incident cancer

TG-WC index	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)
Positive (vs negative)	1.02 (0.66- 1.56)	0.92 (0.59- 1.42)	0.88 (0.57- 1.37)

Data comparing TG-WC index positive versus not;

HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted

Model 2- additionally adjusted for age, sex and race

Model 3- additionally adjusted for smoking, alcohol, family history of cancer and BMI

Supplemental Table 11: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer including cancer cases diagnosed in the 1 year censoring period

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.20 (1.06- 1.36)	1.05 (0.89- 1.22)	1.06 (0.91- 1.25)	0.94 (0.77- 1.14)
Quartile 2 (vs quartile 1)	1.08 (0.66- 1.78)	0.96 (0.58- 1.58)	1.04 (0.63- 1.74)	0.95 (0.57- 1.59)
Quartile 3 (vs quartile 1)	1.71 (1.09- 2.69)	1.32 (0.84- 2.08)	1.45 (0.91- 2.31)	1.22 (0.75- 2.00)
Quartile 4 (vs quartile 1)	1.79 (1.14- 2.80)	1.21 (0.77- 1.91)	1.31 (0.82- 2.12)	1.00 (0.58- 1.73)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 12: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer **excluding lung and esophageal cancer cases**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 4 HR (95% CI)	Model 5 HR (95% CI)
Continuous (per unit standard deviation increase)	1.24 (1.06- 1.43)	1.22 (1.11- 1.52)	1.08 (0.91- 1.31)	0.91 (0.74- 1.11)
Quartile 2 (vs quartile 1)	1.21 (0.76- 2.11)	1.22 (0.72- 2.06)	1.13 (0.67- 1.93)	1.00 (0.58- 1.71)
Quartile 3 (vs quartile 1)	1.93 (1.19- 3.13)	1.94 (1.19- 3.13)	1.57 (0.95- 2.48)	1.18 (0.71- 2.14)
Quartile 4 (vs quartile 1)	1.97 (1.21- 3.21)	1.93 (1.19- 3.17)	1.26 (0.81- 2.15)	1.01 (0.54- 1.81)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 13: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer **excluding lung and esophageal cancer cases, and hematological malignancies**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.22 (1.07- 1.38)	1.07 (0.92- 1.26)	1.07 (0.92- 1.27)	0.94 (0.76- 1.15)
Quartile 2 (vs quartile 1)	1.24 (0.73- 2.10)	1.13 (0.66- 1.92)	1.19 (0.69- 2.05)	1.07 (0.62- 1.85)
Quartile 3 (vs quartile 1)	1.93 (1.19- 3.13)	1.54 (0.95- 2.50)	1.61 (0.98- 2.65)	1.33 (0.77- 2.26)
Quartile 4 (vs quartile 1)	1.94 (1.20- 3.15)	1.33 (0.80- 2.13)	1.36 (0.82- 2.26)	1.00 (0.56- 1.78)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 14: Cox proportional hazard models of visceral adipose tissue (VAT) and incident cancer **excluding breast and prostate cancer cases**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.21 (1.03- 1.43)	1.06 (0.87- 1.31)	1.09 (0.89- 1.34)	0.98 (0.76- 1.27)
Quartile 2 (vs quartile 1)	0.93 (0.48- 1.80)	0.85 (0.44- 1.66)	0.91 (0.46- 1.79)	0.84 (0.43- 1.65)
Quartile 3 (vs quartile 1)	1.54 (0.85- 2.78)	1.24 (0.69- 2.24)	1.34 (0.74- 2.43)	1.16 (0.62- 2.17)
Quartile 4 (vs quartile 1)	1.66 (0.93- 2.98)	1.17 (0.65- 2.09)	1.27 (0.69- 2.31)	1.01 (0.51- 2.00)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 15: Cox proportional hazard models of visceral adipose tissue (VAT) and incident **obesity- associated cancers**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.08 (0.87- 1.33)	1.21 (0.93- 1.58)	1.25 (0.96- 1.62)	1.13 (0.80- 1.59)
Quartile 2 (vs quartile 1)	0.98 (0.44- 2.18)	0.91 (0.41- 2.02)	1.01 (0.44- 2.33)	0.86 (0.37- 2.00)
Quartile 3 (vs quartile 1)	1.71 (0.84- 3.47)	1.38 (0.68- 2.81)	1.54 (0.74- 3.24)	1.15 (0.52- 2.55)
Quartile 4 (vs quartile 1)	1.96 (0.98- 3.93)	1.40 (0.69- 2.84)	1.58 (0.75- 3.32)	0.99 (0.43- 2.28)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 16: Cox proportional hazard models of visceral adipose tissue (VAT) and incident **visceral cancers**

VAT measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	1.47 (1.09- 1.99)	1.14 (0.82- 1.59)	1.09 (0.78- 1.55)	1.21 (0.76- 1.93)
Quartile 2 (vs quartile 1)	0.98 (0.25- 3.92)	0.90 (0.23- 3.59)	0.83 (0.20- 3.33)	0.99 (0.24- 4.12)
Quartile 3 (vs quartile 1)	2.42 (0.77- 7.71)	1.95 (0.62- 6.16)	1.75 (0.53- 5.74)	2.38 (0.59- 9.60)
Quartile 4 (vs quartile 1)	1.71 (0.450- 5.82)	1.22 (0.35- 4.20)	1.09 (0.31- 3.78)	1.76 (0.44- 7.01)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis; HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race (and sex in continuous analysis)

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 17: Cox proportional hazard models of Lower Body Fat (LBF) and incident cancer in Males

LBF measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	0.89 (0.69- 1.16)	0.87 (0.65- 1.16)	0.84 (0.62- 1.13)	0.85 (0.57- 1.28)
Quartile 2 (vs quartile 1)	0.66 (0.35- 1.24)	0.62 (0.33- 1.18)	0.61 (0.32- 1.15)	0.61 (0.32- 1.16)
Quartile 3 (vs quartile 1)	0.70 (0.38- 1.29)	0.60 (0.32- 1.14)	0.58 (0.31- 1.11)	0.58 (0.28- 1.23)
Quartile 4 (vs quartile 1)	0.69 (0.37- 1.29)	0.66 (0.35- 1.24)	0.60 (0.31- 1.14)	0.60 (0.26- 1.38)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis;
HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 18: Cox proportional hazard models of Lower Body Fat (LBF) and incident cancer in Females

LBF measure	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Continuous (per unit standard deviation increase)	0.96 (0.78- 1.18)	0.94 (0.75- 1.17)	1.00 (0.80- 1.25)	0.62 (0.44- 0.87)
Quartile 2 (vs quartile 1)	0.72 (0.39- 1.36)	0.66 (0.35- 1.26)	0.74 (0.39- 1.40)	0.58 (0.30- 1.13)
Quartile 3 (vs quartile 1)	1.05 (0.60- 1.86)	0.96 (0.55- 1.69)	1.08 (0.61- 1.90)	0.63 (0.33- 1.20)
Quartile 4 (vs quartile 1)	0.85 (0.47- 1.55)	0.78 (0.43- 1.43)	0.92 (0.49- 1.71)	0.33 (0.14- 0.80)

Data include both per 1-standard deviation increase in VAT and sex-specific quartile analysis;
HR (95% CI) - hazard ratio (95% confidence interval)

Model 1- unadjusted (univariable in continuous and sex-specific in quartile analysis)

Model 2- additionally adjusted for age and race

Model 3- additionally adjusted for smoking, alcohol and family history of cancer

Model 4- additionally adjusted for body mass index.

Supplemental Table 19: Levels of liver fat in racial groups, and number of incident cancers and rates of incident cancer at 12 years in each quartile of race-adjusted liver fat

Racial group	Liver fat, %, median (interquartile range)	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
		N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Black	3.3 (2.0 – 5.4)	17	6.5 (4.1-10.6)	13	5.0 (2.7- 8.3)	22	8.4 (5.3- 12.4)	23	8.8 (5.4- 13.1)
White	3.6 (2.1- 7.1)	7	4.2 (1.7- 8.4)	14	8.3 (4.1- 13.2)	17	10.1 (6.4- 16.3)	13	7.7 (3.8- 12.7)
Hispanic	4.7 (2.7- 11.0)	2	2.1 (0.2- 7.3)	3	3.1 (0.6- 8.9)	6	6.3 (2.3- 13.0)	1	1.0 (0.0- 5.7)

Data reported as number of incident cancers (N) and incidence percentage (95% confidence interval)

Supplemental Table 20: Cox proportional hazard models of **Liver fat** and incident cancer in **Racial groups**

Racial group	Unadjusted model HR (95% CI)	Fully adjusted model HR (95% CI)
Blacks	1.07 (0.90- 1.29)	1.01 (0.71- 1.18)
Whites	0.91 (0.71- 1.15)	0.80 (0.59- 1.08)
Hispanics	0.67 (0.43- 1.05)	0.77 (0.47- 1.05)

Data as 1-standard deviation increase in Liver fat;

HR (95% CI) - hazard ratio (95% confidence interval)

Fully adjusted model adjusted for age, sex, smoking, alcohol, family history of cancer and body mass index.

Supplemental Figure: Flow Diagram of the Dallas Heart Study Cohort

