

Supplemental Table 1. Body Mass Index at Diagnosis, Post-Diagnosis Waist Circumference and Incident Cardiovascular Event/Death and Cardiovascular Disease Subtype

Body Mass Index at Diagnosis	Overweight 25-<30 kg/m ² N=939	Class I Obese 30-<35 kg/m ² N=510	Class II/III Obese ≥35 kg/m ² N=374	Normal Weight 18.5-<25 kg/m ² N=1286	Per 5 kg/m ² N=3,109
Mean (SD) BMI	27.24 (1.40)	32.00 (1.41)	39.94 (4.75)	22.39 (1.66)	27.54 (6.13)
	Hazard Ratio for CVD (95% Confidence Interval) ²				
All cardiovascular disease events/deaths ¹	283	166	130	336	915
	1.02 (0.87, 1.20)	1.14 (0.94, 1.38)	1.33 (1.08, 1.65)	Ref.	1.10 (1.04, 1.17)
Coronary artery disease	78	36	38	70	222
	1.40 (1.01, 1.94)	1.21 (0.80, 1.83)	2.00 (1.32, 3.03)	Ref.	1.22 (1.09, 1.36)
Heart failure	103	58	57	118	336
Waist Circumference Post-Diagnosis	80-<90 cm N=480	90-<100 cm N=463	≥100 cm N=417	<80 cm N=535	Per 5 cm N=1,898
Mean (SD) Waist circumference	84.64 (2.71)	94.61 (2.86)	110.66 (10.60)	73.38 (4.67)	89.61 (14.78)
	Hazard Ratio for CVD (95% Confidence Interval) ³				
All cardiovascular disease events/deaths ¹	154	162	156	124	596
	1.50 (1.14, 1.97)	1.63 (1.17, 2.26)	2.02 (1.37, 2.97)	Ref.	1.09 (1.04, 1.14)
Coronary artery disease	26	45	39	43	153
	1.82 (1.10, 3.01)	1.27 (0.75, 2.15)	1.69 (0.99, 2.86)	Ref.	1.06 (1.00, 1.13)
Heart failure	46	49	55	69	219
	0.91 (0.59, 1.40)	1.03 (0.68, 1.57)	1.57 (1.04, 2.37)	Ref.	1.05 (1.00, 1.11)

¹ Cardiovascular disease (CVD) events are composite outcome of both incident CVD events (post-diagnosis heart failure [HF], coronary artery disease [CAD], valve abnormality, arrhythmia or stroke) or death in which CVD was the primary cause. All subtypes of CVD, including HF and CAD, include both incident events or death in which that subtype of CVD was listed as the primary cause.

² Adjusted for age in categories (<60, <70, or ≥70 at diagnosis), menopausal status, race/ethnicity (white, black, Asian/Pacific Islander, Hispanic), body mass index at diagnosis, smoking status at diagnosis (never, current or

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former), physical activity (MET hours/week of recreational activity at enrollment), tumor stage, hormone receptor status (ER+, PR+, HER2+) and treatment (chemotherapy and/or radiation) characteristics.

² Additionally adjusted for body mass index at time of waist measurement.

Supplemental Table 2: Composite Cardiovascular Disease Conditions and Codes

Condition	ICD-9 Codes	CPT-4 Codes
Heart Failure	425.x, 428.x, 429.x	
Coronary Artery Disease	410.x, 411.0, 411.1, 412.x, 413.0, 413.1, 414.0, 414.10, 414.11, 414.12, 414.8, 414.9	
Arrhythmia	00.50, 00.51, 37.94, 37.98, 426.11, 426.12, 426.13, 426.3, 426.4, 426.6, 426.7, 427.0, 427.31, 427.32, 427.41, 427.5, 427.6, 427.81, 427.89, 427.9	33240-33249, 71090
Valve Abnormalities or Replacement	424.0, 424.1, 424.2, 424.3, 35.x	33400-33475
Stroke	430.x, 431.x, 432.9, 433.0, 433.1, 433.2, 434.00, 433.01, 434.10, 434.11, 435.0, 435.1, 435.2, 435.3, 435.9, 436.x, 437.0, 437.1	

Condition	ICD-9 Codes	ICD-10 Codes
CVD Death	390.x-398.x, 402.x, 404.x, 410.x-429.x	I00-I02, I05-I09, I11, I13, I20-I28, I30-I52

Supplemental Table 3. Body Mass Index at Diagnosis, Post-Diagnosis Waist Circumference and Incident Cardiovascular Event or Death¹ by Receipt of Chemotherapy*

Body Mass Index at Diagnosis	Overweight 25-<30 kg/m ²	Class I Obese 30-<35 kg/m ²	Class II/III Obese ≥35 kg/m ²	Normal Weight 18.5-<25 kg/m ²	Per 5 kg/m ²
	Hazard Ratio for CVD (95% Confidence Interval) ²				
Chemotherapy					
All cardiovascular disease events/deaths ¹	144	76	73	167	460
	1.14 (0.91, 1.43)	1.16 (0.88, 1.54)	1.37 (1.03, 1.82)	Ref.	1.09 (1.01, 1.18)
Coronary artery disease	2.13 (1.31, 3.48)	1.58 (0.85, 2.94)	2.53 (1.39, 4.60)	Ref.	1.24 (1.07, 1.44)
Heart failure	1.31 (0.91, 1.89)	1.06 (0.66, 1.7)	1.77 (1.14, 2.75)	Ref.	1.15 (1.02, 1.29)
No Chemotherapy					
All cardiovascular disease events/deaths ¹	139	90	57	169	455
	0.91 (0.73, 1.15)	1.16 (0.89, 1.51)	1.30 (0.95, 1.79)	Ref.	1.13 (1.04, 1.22)
Coronary artery disease	1.00 (0.64, 1.57)	0.93 (0.53, 1.63)	1.62 (0.90, 2.94)	Ref.	1.18 (1.00, 1.38)
Heart failure	0.81 (0.55, 1.21)	1.15 (0.73, 1.8)	1.67 (0.99, 2.81)	Ref.	1.27 (1.10, 1.46)
Waist Circumference Post-Diagnosis	80-<90 cm	90-<100 cm	≥100 cm	<80 cm	Per 5 cm
	Hazard Ratio for CVD (95% Confidence Interval) ³				
Chemotherapy					
All cardiovascular disease events/deaths ¹	92	44	40	113	289
	1.28 (0.92, 1.79)	1.10 (0.78, 1.55)	1.56 (1.10, 2.22)	Ref.	1.05 (1.01, 1.10)
Coronary artery disease	2.91 (1.31, 6.46)	1.76 (0.76, 4.1)	3.54 (1.57, 7.95)	Ref.	1.12 (1.03, 1.21)
Heart failure	1.30 (0.72, 2.36)	1.40 (0.78, 2.52)	1.97 (1.10, 3.52)	Ref.	1.07 (1.01, 1.14)
No Chemotherapy					
All cardiovascular disease events/deaths ¹	98	52	34	123	307
	1.34 (0.95, 1.90)	1.40 (0.99, 1.98)	1.58 (1.11, 2.25)	Ref.	1.04 (1.00, 1.09)
Coronary artery disease	1.35 (0.72, 2.54)	1.17 (0.61, 2.23)	1.25 (0.64, 2.43)	Ref.	1.04 (0.96, 1.12)
Heart failure	0.84 (0.47, 1.49)	0.82 (0.46, 1.47)	1.66 (0.96, 2.87)	Ref.	1.06 (0.99, 1.13)

* 78% of chemotherapy was with doxorubicin-containing regimens

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² Adjusted for age in categories (≤ 60 , < 70 , or ≥ 70 at diagnosis), menopausal status, race/ethnicity (white, black, Asian/Pacific Islander, Hispanic), body mass index at diagnosis, smoking status at diagnosis (never, current or former), physical activity (MET hours/week of recreational activity at enrollment), tumor stage, hormone receptor status (ER+, PR+, HER2+) and treatment (chemotherapy and/or radiation) characteristics.

² Additionally adjusted for body mass index at time of waist measurement.

Supplemental Table 4. Post-Diagnosis Weight Change and Incident Cardiovascular Disease Event or Death
N=1,903; events = 599

	≥10 lb loss	5-<10 lb loss	5-<10 lb gain	≥10 lb gain	+/- 5 lb stable
	Hazard Ratio for CVD (95% Confidence Interval) ²				
Normal weight at diagnosis (n=834) BMI<25-kg/m ²					
Events ¹	16	20	32	66	103
	0.97 (0.54, 1.76)	1.52 (0.92, 2.49)	0.88 (0.57, 1.37)	1.05 (0.73, 1.52)	Ref.
Overweight at diagnosis (n=601) BMI25-<30-kg/m ²					
Events ¹	23	24	21	52	72
	0.92 (0.55, 1.52)	1.03 (0.63, 1.68)	1.05 (0.62, 1.79)	0.95 (0.63, 1.44)	Ref.
Obese at diagnosis (n=468) BM≥30-kg/m ²					
Events ¹	53	15	15	33	54
	1.24 (0.81, 1.90)	0.85 (0.46, 1.58)	1.01 (0.55, 1.88)	1.20 (0.73, 1.97)	Ref.

¹ CVD events are composite outcome of both incident CVD events (post-diagnosis heart failure, coronary artery disease, valve abnormality, arrhythmia or stroke) or death in which CVD was the primary cause

² Adjusted for age in categories (=<60, <70, or >=70 at diagnosis), menopausal status, race/ethnicity (white, black, Asian/Pacific Islander, Hispanic), body mass index at diagnosis, smoking status at diagnosis (never, current or former), physical activity (MET hours/week of recreational activity at enrollment), tumor stage, hormone receptor status (ER+, PR+, HER2+) and treatment (chemotherapy and/or radiation) characteristics.

Supplemental Figure 1. Unadjusted Kaplan-Meier curves of Cardiovascular Disease-Free Survival by Waist Circumference 24 Months Post-Diagnosis

