

Supplemental Digital Content 2. Hazard ratios of all cancers in relation to weight lifting, comparing any vs no weight lifting according to sex, age and BMI in the NIH AARP Diet and Health Study<sup>a,b,c</sup>.

	Male		Female		P <sub>interaction</sub>
	HR	95 % CI	HR	95 % CI	
Colon	0.91	0.84, 0.98	1.00	0.93, 1.08	0.008
Kidney	0.95	0.88, 1.03	0.85	0.70, 1.03	0.33
Bladder	0.99	0.95, 1.04	0.99	0.87, 1.12	0.75
Lung	1.01	0.97, 1.05	1.04	0.99, 1.10	0.45
Non-Hodgkin's Lymphoma	0.99	0.93, 1.05	1.05	0.96, 1.15	0.56
Pancreas	1.03	0.96, 1.11	1.00	0.90, 1.11	0.99
Rectum	1.04	0.95, 1.13	0.93	0.73, 1.18	0.11
Melanoma	0.97	0.94, 1.01	0.98	0.92, 1.05	0.19
	<65 years		≥65 years		
	HR	95 % CI	HR	95 % CI	P <sub>interaction</sub>
Colon	0.78	0.63, 0.95	0.96	0.91, 1.02	0.04
Kidney	0.88	0.77, 1.06	0.94	0.87, 1.02	0.87
Bladder	0.91	0.80, 1.05	0.99	0.95, 1.04	0.22
Breast	0.97	0.89, 1.05	0.99	0.95, 1.04	0.49
Lung	0.88	0.80, 0.98	1.03	0.99, 1.06	0.09
Non-Hodgkin's Lymphoma	1.01	0.90, 1.14	1.00	0.94, 1.05	0.89
Pancreas	0.99	0.86, 1.13	1.02	0.96, 1.09	0.75
Prostate	1.03	0.99, 1.07	1.00	0.98, 1.02	0.23
Rectum	1.01	0.74, 1.04	1.02	0.93, 1.12	0.50
Melanoma	0.94	0.88, 1.02	0.98	0.95, 1.02	0.93
	<25 kg/m <sup>2</sup>		≥25 kg/m <sup>2</sup>		
	HR	95 % CI	HR	95 % CI	P <sub>interaction</sub>
Colon	0.98	0.90, 1.07	0.94	0.87, 1.01	0.43
Kidney	0.94	0.83, 1.07	0.93	0.84, 1.02	0.74
Bladder	0.98	0.90, 1.06	0.99	0.94, 1.04	0.31
Breast	1.01	0.96, 1.07	0.97	0.92, 1.03	0.40
Lung	1.02	0.97, 1.07	1.01	0.96, 1.05	0.92
Non-Hodgkin's Lymphoma	0.97	0.88, 1.06	1.01	0.94, 1.08	0.47
Pancreas	0.97	0.86, 1.08	1.03	0.94, 1.11	0.44
Prostate	1.02	1.00, 1.06	0.99	0.97, 1.02	0.16
Rectum	0.98	0.83, 1.15	1.04	0.93, 1.15	0.46
Melanoma	0.98	0.93, 1.03	0.96	0.91, 1.01	0.30

<sup>a</sup> adjusted for age, sex, BMI, smoking status, race, education, alcohol intake, moderate and vigorous leisure time physical activity

<sup>b</sup> presented in the order of level of evidence linking physical activity to cancer risk as dictated by the Physical Activity Guidelines Advisory Committee<sup>3</sup>

<sup>c</sup> breast and prostate cancer are not included in the sex-stratified analysis as the cancers are sex-specific