

## Supplemental Materials

**eTable 1. Distribution of peak MET levels by age groups and gender**

<b>Men</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>5%</b>	5	7	7	6	5	2
<b>10%</b>	7	10	7	7	5	4
<b>25%</b>	7	10	10	10	7	5
<b>50%</b>	10	13	10	10	10	7
<b>75%</b>	13	13	13	13	10	7
<b>90%</b>	13	15	13	13	13	10
<b>95%</b>	15	15	15	13	13	10
<b>Women</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>5%</b>	4	7	5	5	4	2
<b>10%</b>	5	7	7	5	5	2
<b>25%</b>	7	10	7	7	5	5
<b>50%</b>	7	10	10	7	7	5
<b>75%</b>	10	12	10	10	10	7
<b>90%</b>	12	13	13	10	10	7
<b>95%</b>	13	13	13	13	10	10

Distribution of peak MET levels by age groups and gender.

**eTable 2. Adjusted per-METS hazard ratio for mortality and MI by gender**

<b>Mortality</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>Total Cohort (n=57,085)</b>	0.85 (0.84-0.86)	0.82 (0.78-0.86)	0.83 (0.81-0.86)	0.85 (0.83-0.87)	0.86 (0.84-0.87)	0.88 (0.87-0.90)
<b>Men (n=29,371)</b>	0.85 (0.84-0.86)	0.84 (0.79-0.88)	0.85 (0.82-0.88)	0.85 (0.83-0.87)	0.87 (0.85-0.89)	0.87 (0.85-0.90)
<b>Women (n=27,714)</b>	0.84 (0.83-0.86)	0.76 (0.69-0.83)	0.80 (0.76-0.84)	0.84 (0.81-0.87)	0.83 (0.80-0.86)	0.90 (0.87-0.93)
<b>Myocardial Infarction</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>Total Cohort</b>	0.88 (0.87-0.90)	0.87 (0.80-0.94)	0.89 (0.85-0.94)	0.91 (0.87-0.94)	0.86 (0.82-0.89)	0.91 (0.88-0.95)
<b>Men</b>	0.87 (0.85-0.90)	0.86 (0.79-0.95)	0.90 (0.84-0.95)	0.89 (0.85-0.93)	0.86 (0.81-0.90)	0.90 (0.85-0.94)
<b>Women</b>	0.90 (0.87-0.93)	0.91 (0.77-1.08)	0.87 (0.80-0.96)	0.92 (0.86-0.99)	0.85 (0.80-0.91)	0.96 (0.90-1.03)

Adjusted hazard ratios for mortality and MI associated with each 1-MET increment in CRF by age groups and gender. 95% confidence intervals shown in parentheses. Models adjusted for age, gender, race, resting heart rate, resting systolic and diastolic blood pressure, history of diabetes, hypertension, obesity, smoking, family history of CAD, medications for treatment of hypertension, hyperlipidemia and COPD, and indication for stress testing.

HR hazard ratio, METS metabolic equivalents, MI myocardial infarction, CRF cardiorespiratory fitness, CAD coronary artery disease, COPD chronic obstructive pulmonary disease

**eTable 3. Biologic Age Estimates**

	<b>Men</b>				
<b>Mortality</b>	<b>&lt;40</b>	<b>40-49.9</b>	<b>50-59.9</b>	<b>60-69.9</b>	<b>≥70</b>
<b>2 METS</b>					86 (85-87)
<b>3</b>					84 (83-85)
<b>4</b>				77 (75-78)	82 (81-82)
<b>5</b>			67 (66-69)	74 (73-75)	80 (79-80)
<b>6</b>			64 (63-66)	71 (70-72)	77 (77-78)
<b>7</b>	55 (52-59)	59 (57-60)	61 (60-62)	68 (68-69)	75 (75-76)
<b>8</b>	52 (49-54)	55 (53-56)	58 (57-59)	66 (65-66)	73 (72-74)
<b>9</b>	48 (46-50)	51 (50-52)	55 (54-56)	63 (62-64)	71 (70-72)
<b>10</b>	44 (42-46)	47 (46-48)	52 (51-53)	60 (59-61)	68 (67-70)
<b>11</b>	41 (39-42)	43 (42-44)	49 (48-50)	57 (56-59)	
<b>12</b>	37 (35-39)	39 (38-41)	46 (44-47)	55 (53-56)	
<b>13</b>	33 (30-36)	36 (33-38)	43 (41-44)	52 (50-54)	
<b>14</b>	30 (26-33)				
<b>15</b>	26 (21-30)				
	<b>Men</b>				
<b>MI</b>	<b>&lt;40</b>	<b>40-49.9</b>	<b>50-59.9</b>	<b>60-69.9</b>	<b>≥70</b>
<b>2 METS</b>					87 (84-91)
<b>3</b>					85 (83-88)
<b>4</b>				78 (74-81)	83 (81-85)
<b>5</b>			69 (65-73)	74 (71-77)	81 (79-82)
<b>6</b>			66 (63-69)	71 (69-73)	79 (78-80)
<b>7</b>	57 (50-65)	61 (57-65)	63 (60-65)	67 (65-70)	76 (75-78)
<b>8</b>	52 (46-58)	57 (54-60)	60 (58-61)	64 (62-66)	74 (72-76)
<b>9</b>	47 (43-52)	53 (50-55)	56 (55-58)	60 (58-62)	72 (70-74)
<b>10</b>	42 (38-46)	49 (47-51)	53 (51-55)	57 (54-60)	70 (67-73)
<b>11</b>	37 (33-41)	45 (42-47)	50 (48-52)	53 (50-57)	
<b>12</b>	32 (27-37)	40 (37-44)	47 (44-50)	50 (45-54)	
<b>13</b>	27 (21-34)	36 (32-40)	44 (40-47)	46 (41-51)	
<b>14</b>	22 (14-30)				
<b>15</b>	17 (7-27)				
	<b>Women</b>				
<b>Mortality</b>	<b>&lt;40</b>	<b>40-49.9</b>	<b>50-59.9</b>	<b>60-69.9</b>	<b>≥70</b>
<b>2 METS</b>					84 (83-85)
<b>3</b>				78 (77-80)	81 (81-82)
<b>4</b>				75 (74-76)	79 (79-80)
<b>5</b>	60 (55-65)	60 (58-62)	62 (61-64)	71 (70-72)	77 (76-77)
<b>6</b>	55 (52-59)	56 (54-58)	59 (58-60)	67 (67-68)	74 (74-75)
<b>7</b>	51 (48-53)	52 (50-53)	55 (54-56)	64 (63-65)	72 (71-73)
<b>8</b>	46 (44-48)	48 (46-49)	52 (51-53)	60 (59-61)	70 (69-71)
<b>9</b>	41 (38-44)	44 (42-45)	48 (47-50)	56 (55-58)	67 (66-69)
<b>10</b>	37 (33-40)	39 (37-42)	45 (42-47)	53 (51-55)	65 (63-67)
<b>11</b>	32 (27-37)	35 (32-38)	41 (38-44)		
<b>12</b>	27 (21-33)	31 (27-35)	37 (34-41)		
<b>13</b>	22 (15-30)	27 (22-31)	34 (30-38)		
<b>14</b>					
<b>15</b>					
	<b>Women</b>				

<b>MI</b>	<b>&lt;40</b>	<b>40-49.9</b>	<b>50-59.9</b>	<b>60-69.9</b>	<b>≥70</b>
<b>2 METS</b>					82 (78-86)
<b>3</b>				83 (79-87)	80 (77-83)
<b>4</b>				78 (75-81)	78 (76-80)
<b>5</b>	51 (39-63)	63 (56-68)	66 (62-70)	73 (71-76)	76 (75-78)
<b>6</b>	47 (37-57)	58 (53-62)	62 (59-64)	68 (61-66)	74 (72-76)
<b>7</b>	43 (35-51)	53 (50-56)	57 (55-59)	63 (61-66)	72 (69-75)
<b>8</b>	39 (32-46)	48 (45-51)	53 (50-55)	59 (55-62)	70 (66-74)
<b>9</b>	35 (29-42)	43 (40-47)	49 (45-52)	54 (49-58)	68 (63-73)
<b>10</b>	32 (24-39)	38 (33-43)	44 (40-49)	49 (43-54)	66 (60-72)
<b>11</b>	28 (19-36)	33 (27-40)	40 (34-46)		
<b>12</b>	24 (14-34)	29 (20-37)	36 (28-43)		
<b>13</b>	20 (8-33)	24 (14-34)	31 (23-40)		
<b>14</b>					
<b>15</b>					

Biologic age estimates for mortality and MI by peak MET achieved and age groups. 95% confidence intervals shown. Blue shading denotes the closest mean MET value achieved within each age group

**eTable 4. Adjusted per-METS hazard ratio for mortality and MI. Beta-blocker sub-analysis.**

<b>Mortality</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>Total Cohort (n=57,085)</b>	0.85 (0.84-0.86)	0.82 (0.78-0.86)	0.83 (0.81-0.86)	0.85 (0.83-0.87)	0.86 (0.84-0.87)	0.88 (0.87-0.90)
<b>No Beta-blocker (n=47,542)</b>	0.85 (0.84-0.86)	0.83 (0.79-0.87)	0.82 (0.80-0.85)	0.85 (0.83-0.87)	0.86 (0.84-0.88)	0.88 (0.86-0.90)
<b>Beta-blocker (n=9,543)</b>	0.86 (0.84-0.88)	0.74 (0.64-0.86)	0.88 (0.82-0.94)	0.84 (0.80-0.88)	0.86 (0.82-0.90)	0.90 (0.87-0.94)
<b>Myocardial Infarction</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>Total Cohort</b>	0.88 (0.87-0.90)	0.87 (0.80-0.94)	0.89 (0.85-0.94)	0.91 (0.87-0.94)	0.86 (0.82-0.89)	0.91 (0.88-0.95)
<b>No Beta-blocker</b>	0.88 (0.86-0.90)	0.85 (0.77-0.94)	0.90 (0.85-0.95)	0.91 (0.87-0.95)	0.86 (0.82-0.90)	0.90 (0.85-0.94)
<b>Beta-blocker</b>	0.89 (0.85-0.93)	0.93 (0.78-1.12)	0.87 (0.77-0.98)	0.89 (0.82-0.96)	0.83 (0.76-0.91)	0.96 (0.88-1.04)

Adjusted hazard ratios for mortality and MI associated with each 1-MET increment in CRF by age groups and beta-blocker therapy. 95% confidence intervals shown in parentheses. Models adjusted for age, gender, race, resting heart rate, resting systolic and diastolic blood pressure, history of diabetes, hypertension, obesity, smoking, family history of CAD, medications for treatment of hypertension, hyperlipidemia and COPD, and indication for stress testing.

HR hazard ratio, METS metabolic equivalents, MI myocardial infarction, CRF cardiorespiratory fitness, CAD coronary artery disease, COPD chronic obstructive pulmonary disease

**eTable 5. Adjusted per-METS hazard ratio for mortality and MI. BMI sub-analysis.**

<b>Mortality</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>Total Cohort (n=57,085)</b>	0.85 (0.84-0.86)	0.82 (0.78-0.86)	0.83 (0.81-0.86)	0.85 (0.83-0.87)	0.86 (0.84-0.87)	0.88 (0.87-0.90)
<b>Patients with BMI available (n=36,323)</b>	0.86 (0.84-0.87)	0.81 (0.74-0.89)	0.86 (0.82-0.90)	0.86 (0.83-0.94)	0.86 (0.84-0.89)	0.89 (0.86-0.92)
<b>Myocardial Infarction</b>	<b>Total Cohort</b>	<b>&lt;40</b>	<b>40-50</b>	<b>50-60</b>	<b>60-70</b>	<b>&gt;70</b>
<b>Total Cohort</b>	0.88 (0.87-0.90)	0.87 (0.80-0.94)	0.89 (0.85-0.94)	0.91 (0.87-0.94)	0.86 (0.82-0.89)	0.91 (0.88-0.95)
<b>Patients with BMI available</b>	0.88 (0.86-0.90)	0.90 (0.81-1.00)	0.87 (0.82-0.93)	0.90 (0.86-0.94)	0.86 (0.82-0.90)	0.92 (0.87-0.97)

Adjusted hazard ratios for mortality and MI associated with each 1-MET increment in CRF by age groups among patients with BMI data available (n=36,323). 95% confidence intervals shown in parentheses. Models adjusted for age, gender, race, resting heart rate, resting systolic and diastolic blood pressure, history of diabetes, hypertension, obesity, smoking, family history of CAD, medications for treatment of hypertension, hyperlipidemia and COPD, and indication for stress testing.

HR hazard ratio, METS metabolic equivalents, MI myocardial infarction, CRF cardiorespiratory fitness, CAD coronary artery disease, COPD chronic obstructive pulmonary disease