

## Graphing Step Test Results

- Step 1 Referring to the Step Test Graph, draw a horizontal line across the grid area at the level of the client's Maximum Predicted Heart Rate.
- Step 2 Draw a second horizontal line at the client's weight level.
- Step 3 Get the first MET level from the '1<sup>st</sup> Administration MET Level' box on the Step Test Data Collection Form. Referring to the line that represents the client's weight on the Step Test Graph, mark the spot that corresponds with this MET number. Extend a line from this mark vertically to the level of the 1<sup>st</sup> Administration Heart Rate.
- Step 4 Repeat step 3 to mark the 2<sup>nd</sup> Administration MET Level on the weight line and the corresponding 2<sup>nd</sup> Administration Heart Rate on the grid.
- Step 5 Carefully draw a line between the two points from Steps 3 and 4 on the grid. Extend the line to the horizontal line that represents the client's Maximum Predicted Heart Rate.
- Step 6 Drop a vertical line from the point where the two lines mentioned in Step 5 intersect. Extend this line to the horizontal line that represents the client's weight.
- Step 7 The MET level at the intersection of the client's weight line and the vertical line dropped from the client's Maximum Predicted Heart Rate line represents the client's estimated maximum MET level.
- Step 8 Determine client's full-day MET capacity by dividing the value found in Step 7 by 3.

## Step Height and Step Rate MET Calculation Chart

Meters	Inches	Step Rate (Step Cycles Per Minute)								
		12	16	18	20	22	24	26	28	30
<b>0.04</b>	<b>1.58</b>	2.0	2.4	2.5	2.7	2.9	3.0	3.2	3.4	3.5
<b>0.05</b>	<b>1.97</b>	2.1	2.5	2.6	2.8	3.0	3.2	3.4	3.6	3.7
<b>0.06</b>	<b>2.36</b>	2.2	2.6	2.8	3.0	3.2	3.4	3.6	3.7	3.9
<b>0.07</b>	<b>2.76</b>	2.3	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4.2
<b>0.08</b>	<b>3.15</b>	2.3	2.8	3.0	3.2	3.5	3.7	3.9	4.1	4.4
<b>0.09</b>	<b>3.55</b>	2.4	2.9	3.1	3.4	3.6	3.8	4.1	4.3	4.6
<b>0.10</b>	<b>3.94</b>	2.5	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.8
<b>0.11</b>	<b>4.33</b>	2.6	3.1	3.4	3.6	3.9	4.2	4.4	4.7	5.0
<b>0.12</b>	<b>4.73</b>	2.7	3.2	3.5	3.8	4.1	4.3	4.6	4.9	5.2
<b>0.13</b>	<b>5.12</b>	2.8	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.4
<b>0.14</b>	<b>5.52</b>	2.8	3.4	3.8	4.1	4.4	4.7	5.0	5.3	5.6
<b>0.15</b>	<b>5.91</b>	2.9	3.6	3.9	4.2	4.5	4.8	5.2	5.5	5.8
<b>0.16</b>	<b>6.30</b>	3.0	3.7	4.0	4.3	4.7	5.0	5.3	5.7	6.0
<b>0.17</b>	<b>6.70</b>	3.1	3.8	4.1	4.5	4.8	5.2	5.5	5.9	6.2
<b>0.18</b>	<b>7.09</b>	3.2	3.9	4.2	4.6	5.0	5.3	5.7	6.0	6.4
<b>0.19</b>	<b>7.49</b>	3.2	4.0	4.4	4.7	5.1	5.5	5.9	6.2	6.6
<b>0.20</b>	<b>7.88</b>	3.3	4.1	4.5	4.9	5.3	5.7	6.0	6.4	6.8
<b>0.21</b>	<b>8.27</b>	3.4	4.2	4.6	5.0	5.4	5.8	6.2	6.6	7.0
<b>0.22</b>	<b>8.67</b>	3.5	4.3	4.7	5.2	5.6	6.0	6.4	6.8	7.2
<b>0.23</b>	<b>9.06</b>	3.6	4.4	4.9	5.3	5.7	6.1	6.6	7.0	7.4
<b>0.24</b>	<b>9.46</b>	3.7	4.5	5.0	5.4	5.9	6.3	6.8	7.2	7.6
<b>0.25</b>	<b>9.85</b>	3.7	4.7	5.1	5.6	6.0	6.5	6.9	7.4	7.8
<b>0.26</b>	<b>10.24</b>	3.8	4.8	5.2	5.7	6.2	6.6	7.1	7.6	8.0
<b>0.27</b>	<b>10.64</b>	3.9	4.9	5.4	5.8	6.3	6.8	7.3	7.8	8.3
<b>0.28</b>	<b>11.03</b>	4.0	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
<b>0.29</b>	<b>11.43</b>	4.1	5.1	5.6	6.1	6.6	7.1	7.6	8.2	8.7
<b>0.30</b>	<b>11.82</b>	4.1	5.2	5.7	6.2	6.8	7.3	7.8	8.3	8.9

<b>0.31</b>	<b>12.21</b>	4.2	5.3	5.8	6.4	6.9	7.5	8.0	8.5	9.1
<b>0.32</b>	<b>12.61</b>	4.3	5.4	6.0	6.5	7.1	7.6	8.2	8.7	9.3
<b>0.33</b>	<b>13.00</b>	4.4	5.5	6.1	6.7	7.2	7.8	8.4	8.9	9.5
<b>0.34</b>	<b>13.40</b>	4.5	5.6	6.2	6.8	7.4	8.0	8.5	9.1	9.7
<b>0.35</b>	<b>13.79</b>	4.6	5.7	6.3	6.9	7.5	8.1	8.7	9.3	9.9
<b>0.36</b>	<b>14.18</b>	4.6	5.9	6.5	7.1	7.7	8.3	8.9	9.5	10.1
<b>0.37</b>	<b>14.58</b>	4.7	6.0	6.6	7.2	7.8	8.4	9.1	9.7	10.3
<b>0.38</b>	<b>14.97</b>	4.8	6.1	6.7	7.3	8.0	8.6	9.2	9.9	10.5
<b>0.39</b>	<b>15.37</b>	4.9	6.2	6.8	7.5	8.1	8.8	9.4	10.1	10.7
<b>0.40</b>	<b>15.76</b>	5.0	6.3	7.0	7.6	8.3	8.9	9.6	10.3	10.9
<b>0.41</b>	<b>16.15</b>	5.1	6.4	7.1	7.8	8.4	9.1	9.8	10.5	11.1

## Step Test Graph

HR															
200															
190															
180															
170															
160															
150															
140															
130															
120															
110															
100															
90															
		150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100
lbs	kg	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.8	3.2	3.5	3.6	4.2	4.6	5.0
90	41	4.2	6.3	8.4	10.5	12.5	14.6	16.7	19.5	22.3	24.4	25.1	29.3	32.1	34.8
97	44	3.9	5.8	7.8	9.7	11.7	13.6	15.6	18.2	20.8	22.7	23.4	27.3	29.9	32.5
103	47	3.6	5.5	7.3	9.1	10.9	12.8	14.6	17.0	19.5	21.3	21.9	25.5	28.0	30.4
110	50	3.4	5.1	6.9	8.6	10.3	12.0	13.7	16.0	18.3	20.0	20.6	24.0	26.3	28.6
117	53	3.2	4.9	6.5	8.1	9.7	11.3	12.9	15.1	17.3	18.9	19.4	22.6	24.8	27.0
123	56	3.1	4.6	6.1	7.7	9.2	10.7	12.2	14.3	16.3	17.9	18.4	21.4	23.5	25.5
130	59	2.9	4.4	5.8	7.3	8.7	10.2	11.6	13.6	15.5	16.9	17.4	20.3	22.3	24.2
136	62	2.8	4.1	5.5	6.9	8.3	9.7	11.1	12.9	14.7	16.1	16.6	19.4	21.2	23.0
143	65	2.6	4.0	5.3	6.6	7.9	9.2	10.5	12.3	14.1	15.4	15.8	18.5	20.2	22.0
150	68	2.5	3.8	5.0	6.3	7.6	8.8	10.1	11.8	13.4	14.7	15.1	17.6	19.3	21.0
156	71	2.4	3.6	4.8	6.0	7.2	8.5	9.7	11.3	12.9	14.1	14.5	16.9	18.5	20.1
163	74	2.3	3.5	4.6	5.8	6.9	8.1	9.3	10.8	12.4	13.5	13.9	16.2	17.8	19.3
169	77	2.2	3.3	4.5	5.6	6.7	7.8	8.9	10.4	11.9	13.0	13.4	15.6	17.1	18.6
176	80	2.1	3.2	4.3	5.4	6.4	7.5	8.6	10.0	11.4	12.5	12.9	15.0	16.4	17.9
183	83	2.1	3.1	4.1	5.2	6.2	7.2	8.3	9.6	11.0	12.0	12.4	14.5	15.8	17.2
189	86	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.3	10.6	11.6	12.0	14.0	15.3	16.6
196	89	1.9	2.9	3.9	4.8	5.8	6.7	7.7	9.0	10.3	11.2	11.6	13.5	14.8	16.1
202	92	1.9	2.8	3.7	4.7	5.6	6.5	7.5	8.7	9.9	10.9	11.2	13.0	14.3	15.5
209	95	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.4	9.6	10.5	10.8	12.6	13.8	15.0
216	98	1.7	2.6	3.5	4.4	5.2	6.1	7.0	8.2	9.3	10.2	10.5	12.2	13.4	14.6
222	101	1.7	2.5	3.4	4.2	5.1	5.9	6.8	7.9	9.1	9.9	10.2	11.9	13.0	14.1
229	104	1.6	2.5	3.3	4.1	4.9	5.8	6.6	7.7	8.8	9.6	9.9	11.5	12.6	13.7
235	107	1.6	2.4	3.2	4.0	4.8	5.6	6.4	7.5	8.5	9.3	9.6	11.2	12.3	13.4
242	110	1.6	2.3	3.1	3.9	4.7	5.5	6.2	7.3	8.3	9.1	9.4	10.9	11.9	13.0
249	113	1.5	2.3	3.0	3.8	4.6	5.3	6.1	7.1	8.1	8.8	9.1	10.6	11.6	12.6
255	116	1.5	2.2	3.0	3.7	4.4	5.2	5.9	6.9	7.9	8.6	8.9	10.3	11.3	12.3
262	119	1.4	2.2	2.9	3.6	4.3	5.0	5.8	6.7	7.7	8.4	8.6	10.1	11.0	12.0
268	122	1.4	2.1	2.8	3.5	4.2	4.9	5.6	6.6	7.5	8.2	8.4	9.8	10.8	11.7
275	125	1.4	2.1	2.7	3.4	4.1	4.8	5.5	6.4	7.3	8.0	8.2	9.6	10.5	11.4
282	128	1.3	2.0	2.7	3.3	4.0	4.7	5.4	6.3	7.1	7.8	8.0	9.4	10.3	11.2
288	131	1.3	2.0	2.6	3.3	3.9	4.6	5.2	6.1	7.0	7.6	7.9	9.2	10.0	10.9
295	134	1.3	1.9	2.6	3.2	3.8	4.5	5.1	6.0	6.8	7.5	7.7	9.0	9.8	10.7
301	137	1.3	1.9	2.5	3.1	3.8	4.4	5.0	5.8	6.7	7.3	7.5	8.8	9.6	10.4

## Step Test Data Collection Form

Client's Name: \_\_\_\_\_ Date of Evaluation: \_\_\_\_\_

Age: \_\_\_\_\_ Weight: \_\_\_\_\_ lbs kgs Max Predicted Heart Rate (220 – Age): \_\_\_\_\_

Resting Heart Rate: \_\_\_\_\_ 85% of Max Predicted Heart Rate: \_\_\_\_\_

### First Administration

Step Height \_\_\_\_\_ meters Step Rate \_\_\_\_\_ cycles per minute MET Level \_\_\_\_\_

Two Minute Heart Rate: \_\_\_\_\_ bpm

Three Minute Heart Rate: \_\_\_\_\_ bpm

First Administration Steady State Heart Rate: \_\_\_\_\_ bpm

Observations:

### Second Administration

Step Height \_\_\_\_\_ meters Step Rate \_\_\_\_\_ cycles per minute MET Level \_\_\_\_\_

Two Minute Heart Rate: \_\_\_\_\_ bpm

Three Minute Heart Rate: \_\_\_\_\_ bpm

Second Administration Steady State Heart Rate: \_\_\_\_\_ bpm

Observations:

Maximum Predicted MET Level \_\_\_\_\_ Full-day MET Capacity \_\_\_\_\_

