**Supplementary table 1.** Cycle-ergometer graded exercise protocols

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|  | **Protocol 1:**  *Women >35 years old* | **Protocol 2:**  *Women <35 years old*  *Men >35 years old* | **Protocol 3:**  *Men <35 years old* |
| **GXT** | ***Stationary resting period***:  Duration: 5 min | ***Stationary resting period***:  Duration: 5 min | ***Stationary resting period***:  Duration: 5 min |
|  | ***Warm-up period***:  Duration: 5 min  Load: 15W  Pedaling cadence: 50-70 rpm | ***Warm-up period***:  Duration: 5 min  Load: 30W  Pedaling cadence: 50-70 rpm | ***Warm-up period***:  Duration: 5 min  Load: 50W  Pedaling cadence: 50-70 rpm |
|  | ***Load period***:  Duration: until exhaustion  Load: 3W/12s  Pedaling cadence: 60-90 rpm | ***Load period***:  Duration: until exhaustion  Load: 4W/12s  Pedaling cadence: 60-90 rpm | ***Load period***:  Duration: until exhaustion  Load: 5W/12s  Pedaling cadence: 60-90 rpm |
|  | ***Active recovery period***:  Duration: 2 min  Pedaling cadence: self-chosen | ***Active recovery period***:  Duration: 2 min  Pedaling cadence: self-chosen | ***Active recovery period***:  Duration: 2 min  Pedaling cadence: self-chosen |
|  | ***Passive recovery period***:  Duration: 10 min  No pedaling | ***Passive recovery period***:  Duration: 10 min  No pedaling | ***Passive recovery period***:  Duration: 10 min  No pedaling |
|  |  |  |  |
| **Vert** | Total duration: until exhaustion  ***Warm-up period***:  Duration: 30 s  Load: 0 W  Pedaling cadence: 60-90 rpm | Total duration: until exhaustion  ***Warm-up period***:  Duration: 30 s  Load: 0 W  Pedaling cadence: 60-90 rpm | Total duration: until exhaustion  ***Warm-up period***:  Duration: 30 s  Load: 0 W  Pedaling cadence: 60-90 rpm |
|  | ***Submaximal period***:  Duration: 1 min  Load: 50% Wax  Pedaling cadence: 60-90 rpm | ***Submaximal period***:  Duration: 1 min  Load: 50% Wax  Pedaling cadence: 60-90 rpm | ***Submaximal period***:  Duration: 1 min  Load: 50% Wax  Pedaling cadence: 60-90 rpm |
|  | ***Supramaximal period***:  Duration: until exhaustion  Load: 110% Wmax  Pedaling cadence: 60-90 rpm | ***Supramaximal period***:  Duration: until exhaustion  Load: 110% Wmax  Pedaling cadence: 60-90 rpm | ***Supramaximal period***:  Duration: until exhaustion  Load: 110% Wmax  Pedaling cadence: 60-90 rpm |
|  | ***Active recovery period***:  Duration: self-chosen  Pedaling cadence: self-chosen | ***Active recovery period***:  Duration: self-chosen  Pedaling cadence: self-chosen | ***Active recovery period***:  Duration: self-chosen  Pedaling cadence: self-chosen |

Note: GXT: graded exercise test, VerT: verification test.