# Data Collection Worksheet

**Please Note:** The Data Collection Worksheet (DCW) is a tool to aid integration of a PhenX protocol into a study. The PhenX DCW is not designed to be a data collection instrument. Investigators will need to decide the best way to collect data for the PhenX protocol in their study. Variables captured in the DCW, along with variable names and unique PhenX variable identifiers, are included in the PhenX Data Dictionary (DD) files.

## Treadmill

Secure the heart-rate monitor chest strap and wrist receiver. Ask the study participant to warm up by walking on a treadmill at 0% grade at a brisk, but comfortable pace of 2 to 4.5 mph for 4 minutes. The warm up pace should produce a heart rate that is 50-70% of the age-predicted maximum HR (220 - age in years). After 4 minutes at 0% grade, begin the test by increasing the grade of the treadmill to 5%, start the stopwatch. The speed should remain the same for 4 minutes at the 5% grade. Heart rate from a HR monitor should be obtained for the last 15 sec of the test. Record the speed, HR, age, and gender into the following scoring equation to determine predicted relative $VO_{2max}$ (maximal oxygen consumption).

Scoring

$VO_{2max}$ = 15.1 + 21.8*SPEED (mph) - 0.327* HEART RATE (bpm) - 0.263*SPEED*AGE (yrs) + 0.00504*HEART RATE*AGE + 5.98*GENDER

(0 = female, 1 = male)

Units are milliliters of oxygen per kilogram body weight per minute expressed as mil/kg/min.

Protocol source: https://www.phenxtoolkit.org/protocols/view/150102