



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.

Follow the breathalyzer manufacturer's instructions.

Explain to the participant that you are about to obtain his/her blood alcohol reading with a breathalyzer device. Also explain that you need to observe him/her for 20 minutes before the test and that he/she should not drink anything including water during that time.

Document the time that the observation began. __ __: __ __ am/pm

Prepare the breathalyzer device. Attach a new mouthpiece to the device. Some devices require calibration or a preliminary test; if so, record the results.

Document the time the observation ended. __ __: __ __ am/pm

(Ask participant) Have you belched, burped, regurgitated, or taken a drink of anything in the past 20 minutes?

- 1 Yes - Observe for another 20 minutes.
- 2 No - Proceed with breath test.

Ask participant to blow steadily into the breathalyzer.

Do not record this result. Wait 2 minutes.

(Ask participant) Have you belched, burped, regurgitated, or taken a drink of anything in the past 2 minutes?

- 1 Yes - Observe for another 20 minutes.
- 2 No - Proceed with breath test.

Ask participant to blow steadily into the breathalyzer a second time.

Record this result. 0. __ __ grams per 210 liters of breath.

(If necessary, conduct a third test after waiting 2 minutes and ask the question above.)

Interpretation of Results

A person's blood alcohol concentration (BAC) is related to a number of factors including the quantity of alcohol consumed, rate of consumption, gender, weight, and prior ingestion of food (Hingson et al., 1999; see Figure 1, p. 32). All states in the United States have adopted 0.08% (80 mg/dl) as the legal BAC limit for operating a motor vehicle for drivers aged 21 years or older (Centers for Disease Control and Prevention, 2011). However, drivers younger than 21 are not allowed to operate a motor vehicle with any level of alcohol in their system. The National Highway Traffic Safety Administration (NHTSA) approves "evidential breath testing devices" (EBTs) with reliable results of 0.02% or greater. Although many breathalyzers measure BACs below 0.02% it is considered the lowest positive value. Note: Legal limits do not define a level below which it is safe to operate a vehicle or engage in some other activity. Impairment due to alcohol use can occur at levels well below the legal limit, starting at 0.01% (National Institute on Alcohol Abuse and Alcoholism, 1994), and the level of impairment is positively related to BAC level.

Protocol source: <https://www.phenxtoolkit.org/protocols/view/510501>