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| **Dominance - (12 Years and Older)** | |
| **Protocol Id** | 020602 |
| **Description of Protocol** | Questions to determine which hand the participant uses for a series of activities. |
| **Specific Instructions** | None |
| **Protocol Text** | The following protocol is part of a personal interview in which the participant reports on his/her own hand usage. Young Adult and Adult handedness is assessed using an 11-item scale.  Please indicate your preferences in the use of hands in the following activities by putting a 1 in the appropriate column (for right only, left only, or both hands) for each item that you use.   |  |  |  |  | | --- | --- | --- | --- | |  | **Right hand** | **Left hand** | **Both hands** | | 1. Write |  |  |  | | 2. Draw |  |  |  | | 3. Throw |  |  |  | | 4. Hold a racquet |  |  |  | | 5. Clean teeth |  |  |  | | 6. Hammer |  |  |  | | 7. Strike a match |  |  |  | | 8. Use an eraser |  |  |  | | 9. Deal cards |  |  |  | | 10. Thread a needle |  |  |  | | 11. Cut food with a knife |  |  |  | | Total |  |  |  |   *Scoring:* The participant indicates use by a "1" in the appropriate column (for right, left, or both) for each item that an adult uses. Add the "1"s in each column to get a total for that column. The sum of all three column totals is the cumulative total. To calculate the score: 100 x (right total - left total)/cumulative total. Handedness is then classified as follows:  Scoring  Less than -40       left-handed Greater than or equal to -40 and less than 40       mixed-handed Greater than or equal to 40        right-handed   ***Note:****The activities listed in the Edinburgh Handedness Inventory method have been modified by the PhenX Anthropometrics Working Group.* |
| **Selection Rationale** | The Edinburgh Handedness Inventory was selected because of the detail of the activities that are performed. |
| **Source** | Oldfield, R.C. (1971). The assessment and analysis of handedness: The Edinburgh inventory. *Neuropsychologia, 9,* 97-113. |
| **Language** | English |
| **Participant** | This measure includes two protocols, each relating to a specific age of the participant. Consistent hand dominance starts to develop between 2 and 3 years of age and is usually completed by 6 years of age. Hand preference that appears before the age of 18 months may signal impaired neurological control of the other hand.  **Avon Longitudinal Study of Parents and Children Protocol (ALSPAC)** Child beginning at 42 months of age  **Edinburgh Handedness Inventory** Participant aged 12 and older |
| **Personnel and Training Required** | The trained interviewer should be able to administer a questionnaire and have the ability to probe for information as necessary. |
| **Equipment Needs** | None |
| **Standards** | |  |  |  |  | | --- | --- | --- | --- | | **Standard** | **Name** | **ID** | **Source** | | Common Data Elements (CDE) | Preference Hand Laterality | 2180147 | [CDE Browser](https://cdebrowser.nci.nih.gov/CDEBrowser/search?elementDetails=9&FirstTimer=0&PageId=ElementDetailsGroup&publicId=2180147&version=1.0) | | Logical Observation Identifiers Names and Codes (LOINC) | Hand dom- 12Y proto EHI | 56101-9 | [LOINC](http://s.details.loinc.org/LOINC/56101-9.html?sections=Web) | |
| **General References** | Porac, C., & Coren, S. (1981). *Lateral preferences and human behavior.* New York: Springer-Verlag. |
| **Protocol Type** | Question |
| **Derived Variables** | None |
| **Requirements** | |  |  | | --- | --- | | **Requirement Category** | **Required** | | Average time of greater than 15 minutes in an unaffected individual  Average time of greater than 15 minutes in an unaffected individual | No | | Major equipment  This measure requires a specialized measurement device that may not be readily available in every setting where genome wide association studies are being conducted. Examples of specialized equipment are DEXA, Echocardiography, and Spirometry | No | | Specialized requirements for biospecimen collection  This protocol requires that blood, urine, etc. be collected from the study participants. | No | | Specialized training  This measure requires staff training in the protocol methodology and/or in the conduct of the data analysis. | No | |