**Frontal Shoulder Response in Pediatric Volunteers**

* Sign parental permission form and child assent
* Sign gift card log
* Explain procedure to child / parent
* Make sure child’s clothing is appropriate
* Meets inclusion criteria

**Subject #** **Date**

**Birth Month / Year** **Sex:** M / F **Arm Dominance:** R / L

**Anthropometry:**

|  |  |
| --- | --- |
|  |  |
| 1. | Weight |  |
| 2.  | Height (Standing) |  |
| 3. | Seated height |  |
| 4. | Shoulder width (lat delt to lat delt) |  |
| 5. | Bi-acromial Distance |  |
| 6. | Clavicular Length (R side) |  |
| 7. | Humeral Length (R side) |  |
| 8. | Chest Width |  |
| 9. | Chest Depth |  |
| 10. | Chest Circumference |  |
| 11. | Arm circumference (mid-bicep) |  |

* Set up VICON (marker placement)
* Position child for ROM assessment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 12. | **Active ROM** | **Motion** | **Trial #1** | **Trial #2** | **Trial #3** |
| Flexion |  |  |  |
| Extension |  |  |  |
| Abduction |  |  |  |
| Horizontal Abduction |  |  |  |
| Horizontal Adduction |  |  |  |
| Internal Rotation |  |  |  |
| External Rotation |  |  |  |
| Circumduction |  |  |  |
|  |
| 13. | **Passive ROM** | **Motion** | **Trial #1** | **Trial #2** | **Trial #3** |
| Flexion |  |  |  |
| Extension |  |  |  |
| Abduction |  |  |  |
| Horizontal Abduction |  |  |  |
| Horizontal Adduction |  |  |  |
| Internal Rotation |  |  |  |
| External Rotation |  |  |  |
| Circumduction (active) |  |  |  |

* Position child in test fixture

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 14. | **Condition** | **Thorax Position** | **Angle of pull** | **Force used (N)** | **Trial #1** | **Trial #2** |
| No Shoulder belt | Sitting Upright | 90° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |
| 135° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |
| 170° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |
| 15. | Leaning Forward | 90° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |
| 135° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |
| 16. | Shoulder belt | Sitting Upright | 90° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |
| 135° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |
| 170° | 50 (25 N/arm) |  |  |
| 150 (75 N/arm) |  |  |
| 300 (150 N/arm) |  |  |