

GUIDELINE TITLE: ARM SPAN MEASUREMENT FOR SPINAL PATIENTS	Document No: pending Version No: 1
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Document Type: Clinical-Nurse Practice Guideline	
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Date of Approval: 06/02/2024	Effective Date: 06/02/2024

1.0 PROCEDURE STATEMENT

Arm span measurement offers a control parameter for the measurement of standing height (Akbarnia et al., 2011). There is an excellent correlation between standing height and arm span with standing height equating for approximately 97% of arm span.

In the absence of trunk deformity, trunk length will equate to approximately 52% of arm span. Therefore, in spinal deformity, arm span is a useful estimate as to what the standing height would be in the absence of deformity.

Arm span is approximately 0 – 5cm greater than standing height in 77% of patients

22% patients – 5 – 10cm more

1% patient – greater than 10cm (Morrissey and Weinstein, 2001).

2.0 PURPOSE:

The purpose of this document is to inform CHI staff of best practice when conducting armspan measurement

3.0 SCOPE:

- 3.1 Employees: All full-time, part-time and fixed term employees employed by Children's Health Ireland are covered by this policy.
- 3.2 Agents: Agents may be employees of suppliers, volunteers, students on placement or any other individuals associated with Children's Health Ireland. All such agents are covered by this policy.

4.0 DEFINITIONS / ABBREVIATIONS:

Armspan: the maximum distance between the extended middle fingers of the right and left hands, measured across the chest using a tape measure.

5.0 ROLES and RESPONSIBILITIES

It is the responsibility of all staff involved in the role of Armspan measurement in spinal patients to adhere to this procedure

6.0 OBJECTIVES

Standardised the practice of does involved in armspan measurement to evidence based practice

7.0 EXPECTED OUTCOMES

Compliance with armspan measurement procedure. The risk of poor compliance is deemed low given low burden nature of the procedure.

8.0 GUIDELINE STEPS

Ask the patient to stand against a wall with their arms outstretched in a horizontal position at shoulder level. Measurement of the arm span is the maximum distance between the extended middle fingers of the right and left hands, measured across the chest using a tape measure.

Equipment needed

Hospital tape measure – preferably 150cm tape measure.

Process

- Ask the patient to raise their arms into a horizontal position.
- Using a tape measure – measure the distance between the tips of the middle fingers of each hand.
- Two separate measurements should be taken and the average of the 2 measurements documented.
- Accurately document the patient's arm span alongside their height and weight.
- Parent/Guardian can assist to ensure accuracy of measurement.
- In the case where half arm span measurement is used please refer to appendix 11.0 and multiply the measurement X 2.

9.0 COMMUNICATION AND TRAINING

All staff working with children with spinal deformities in CHI will be orientated to the Measurement of Arm Span procedure.

10.0 COMPLIANCE MONITORING

10.1.1 A plan for audit on a regular basis by the CNF and nominated staff member in OPD

11.0 APPROVAL:

Proposed: Nurse Practice Committee (Name & Title)	25/01/2024 (Date dd/mm/yyyy)
Concurred: _____ (Name & Title)	_____ (Date dd/mm/yyyy)
Approved: Nursing Documentation Approval Committee (Name & Title)	06/02/2024 (Date dd/mm/yyyy)

12.0 VERSION CONTROL HISTORY:

Date: dd/mm/yyyy	Revision Number	Summary of changes/ Reason for change	Section ref:	Author:

13.0 REFERENCES:

Akbarnia, B.A., Yazici, M., Thompson, G.H. and El-Hawary, R. eds., 2016. The growing spine: management of spinal disorders in young children. Berlin: Springer.

Morrissy, R. T., & Weinstein, S. L. (1996). Lovell and winters: pediatric orthopaedics. In Lovell and winters: pediatric orthopaedics (pp. xxv-624).

<https://www.measurement-toolkit.org/anthropometry/objective-methods/simple-measures-height>

14.0 APPENDICES:

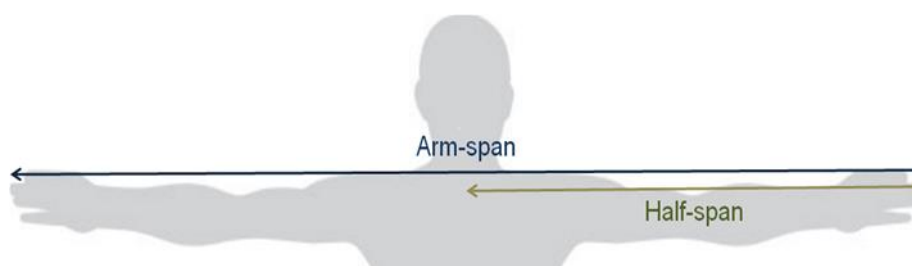
14.1 Appendix I: Guideline Development Group/Key Stakeholders

14.2 Appendix II: Armspan Illustration

Appendix I: Guideline Development Group/Stakeholders

Development Group/ Key Stakeholders	Approval Date
1. Kathleen Fitzmaurice CNEF	06/02/2024
2. Audrey Whelan Staff Nurse	06/02/2024
3. Zoe Reichental Dietician	06/02/2024
4. Smitha Rajan CNM2	06/02/2024
5. Pat Kiely Consultant Orthopaedic Surgeon	06/02/2024

Appendix II: Armspan Illustration



<https://www.measurement-toolkit.org/anthropometry/objective-methods/simple-measures-height>

*Half arm span measurement should be taken from the midpoint of the sternal notch (see above) to the tip of the middle finger. Then, multiply the measurement X 2.