

Childhood Myositis Assessment Scale – CMAS

The Childhood Myositis Assessment Scale (CMAS) has been shown to be a valid measure of physical function in children with juvenile idiopathic inflammatory myopathies. It is the most commonly used assessment tool and has been recommended as a core set measure. The CMAS was first published in 1999 by Lovell et al, however the standardized method for conducting the scale can be found below and at the International Myositis Assessment and Clinical Studies Group web site.

The *Criteria* requires submission of a score calculated by assessing each of the 14 manoeuvres in the table and scored according the scale to yield a total maximum score of 52.

Childhood Myositis Assessment Scale scoring sheet

<p>1. Head elevation (neck flexion):</p> <p>0 = Unable</p> <p>1 = 1 – 9 seconds</p> <p>2 = 10 – 29 seconds</p> <p>3 = 30 – 59 seconds</p> <p>4 = 60 – 119 seconds</p> <p>5 = ≥2 minutes</p> <p style="text-align: right;">No. of seconds</p>	<p>Score</p> <div></div>
<p>2. Leg raise/touch object:</p> <p>0 = Unable to lift leg off table</p> <p>1 = Able to clear table, but cannot touch object</p> <p>2 = Able to lift leg high enough to touch object</p>	<p>Score</p> <div></div>
<p>3. Straight leg lift/duration:</p> <p>0 = Unable</p> <p>1 = 1 – 9 seconds</p> <p>2 = 10 – 29 seconds</p> <p>3 = 30 – 59 seconds</p> <p>4 = 60 – 119 seconds</p> <p>5 = ≥2 minutes</p> <p style="text-align: right;">No. of seconds</p>	<p>Score</p> <div></div>
<p>4. Supine to prone:</p> <p>0 = Unable. Has difficulty even turning onto side; able to pull arms under torso only slightly or not at all</p> <p>1 = Turns onto side fairly easily, but cannot fully free arms and is not able to fully assume a prone position</p> <p>2 = Easily turns onto side; has some difficulty freeing arms, but fully frees them and fully assumes a prone position</p> <p>3 = Easily turns over, fully frees right arm with no difficulty</p>	<p>Score</p> <div></div>
<p>5. Sit-ups:</p> <p>For each type of sit-up enter either "0" (unable) or "1" (able). Then enter the total sit-up score (0-6).</p> <p>Hands on thighs, with counterbalance <input type="checkbox"/></p> <p>Hands across chest, with counterbalance <input type="checkbox"/></p> <p>Hands behind head, with counterbalance <input type="checkbox"/></p> <p>Hands on thighs, without counterbalance <input type="checkbox"/></p> <p>Hands across chest, without counterbalance <input type="checkbox"/></p> <p>Hands behind head, without counterbalance <input type="checkbox"/></p>	<p>Score</p> <div></div>
<p>6. Supine to sit:</p> <p>0 = Unable by self</p> <p>1 = Much difficulty. Very slow, struggles greatly, barely makes it. Almost unable</p> <p>2 = Some difficulty. Able, but is somewhat slow, struggles some</p> <p>3 = No difficulty</p>	<p>Score</p> <div></div>

7. Arm raise/straighten:

- 0** = Cannot raise wrists
- 1** = Can raise wrists at least up to the level of the acromioclavicular joint, but not above top of head
- 2** = Can raise wrists above top of head, but cannot raise arms straight above head so that elbows are in full extension
- 3** = Can raise arms straight above head so that elbows are in full extension

Score

8. Arm raise/duration:

Can maintain wrists above top of head for:

- 0** = Unable
- 1** = 1 – 9 seconds
- 2** = 10 – 29 seconds
- 3** = 30 – 59 seconds
- 4** = ≥60 seconds

Score

No. of seconds

9. Floor sit:

Going from a standing position to a sitting position on the floor.

- 0** = Unable. Afraid to even try, even if allowed to use a chair for support. Child fears that he/she will collapse, fall into a sit, or harm self
- 1** = Much difficulty. Able, but needs to hold onto a chair for support during descent. (Unable or unwilling to try if not able to use a chair for support)
- 2** = Some difficulty. Can go from stand to sit without using a chair for support, but has at least some difficulty during descent. Descends somewhat slowly and/or apprehensively; may not have full control or balance as manoeuvres into a sit
- 3** = No difficulty. Requires no compensatory manoeuvring

Score

10. All-fours manoeuvre:

- 0** = Unable to go from a prone to an all-fours position
- 1** = Barely able to assume and maintain an all-fours position
- 2** = Can maintain all-fours position with straight back and head raised (so as to look straight ahead). But, cannot creep (crawl) forward
- 3** = Can maintain all-fours, look straight ahead, and creep (crawl) forward
- 4** = Maintains balance while lifting and extending leg

Score

11. Floor rise:

Going from a kneeling position on the floor to a standing position

- 0** = Unable, even if allowed to use a chair for support
- 1** = Much difficulty. Able, but needs to use a chair for support. Unable if not allowed to use a chair
- 2** = Moderate difficulty. Able to get up without using a chair for support, but needs to place one or both hands on thighs/knees or floor. Unable without using hands
- 3** = Mild difficulty. Does not need to place hands on knees, thighs, or floor, but has at least some difficulty during ascent
- 4** = No difficulty

Score

12. Chair rise:

- 0** = Unable to rise from chair, even if allowed to place hands on sides of chair seat
- 1** = Much difficulty. Able, but needs to place hands on sides of seat. Unable if not allowed to place hands on knees/thighs
- 2** = Moderate difficulty. Able, but needs to place hands on knees/thighs. Does not need to place hands on side of seat
- 3** = Mild difficulty. Able; does not need to use hands at all, but has at least some difficulty
- 4** = No difficulty

Score

13. Stool step:

- 0** = Unable
- 1** = Much difficulty. Able, but needs to place one hand on exam table or examiner's hand

Score

2 = Some difficulty. Able; does not need to use exam table for support, but needs to use hand(s) on knee/thigh

3 = Able. Does not need to use exam table or hand(s) on knee/thigh

14. Pick up:

0 = Unable to bend over and pick up pencil off floor


1 = Much difficulty. Able, but relies heavily on support gained by placing hand(s) on knees/thighs

2 = Some difficulty. Needs to at least minimally and briefly place hand(s) on knees/thighs for support and is somewhat slow

3 = No difficulty. No compensatory manoeuvre necessary

Score

Total score (maximum possible score 52)

Reproduced from Arthritis Care Res 2014, Vol.66, [Huber, A, Lovell, D.J, Pilkington, C.A et al., Confusion Concerning Multiple Versions of the Childhood Myositis Assessment Scale](#)  , p.648, Copyright (2007), with permission from John Wiley and Sons." Copyright © 2014 by the American College of Rheumatology