

# Study Group MFM

Motor Function Measure  
For Neuromuscular disorders  
[www.afm-france.org](http://www.afm-france.org)

## MFM DATA BANK

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Centre N° |\_\_|\_\_| Patient N° |\_\_|\_\_|\_\_| Family Name |\_\_|\_\_|\_\_| First name |\_\_|\_\_|

## PATIENT'S ID

**Family Name (birth name) :** |\_\_|\_\_|\_\_|\_\_\_\_\_

(At least 3 first letters – eventually full name)

**Married Name :** |\_\_|\_\_|\_\_|\_\_\_\_\_

(At least 3 first letters – eventually full name)

**First name** |\_\_|\_\_|\_\_\_\_\_

(At least 2 first letters – eventually full name)

**Date of birth :** I\_\_I\_\_I I\_\_I\_\_I I\_\_I\_\_I\_\_I\_\_I  
                  dd      mm      yyyy

**Gender :** M I\_\_I 1 F I\_\_I 2

**Handedness :** Right I\_\_I 1 Left I\_\_I 2 Not determined/both I\_\_I 3

**Clinical Diagnosis (code) :** I\_\_I\_\_I\_\_I\_\_I or specify if not in list : .....

(Check at each visit in case of change of diagnosis)

Mutated gene if known (eg, COL6, LMNA...) : .....

**Age at onset of signs** (that have led to first visit) |\_\_|\_\_|\_years

**Date of Death :** I\_\_I\_\_I I\_\_I\_\_I I\_\_I\_\_I\_\_I\_\_I

**Participation to the validation study of the 2nd version - French and Swiss centers only:** yes I\_\_I 1 no I\_\_I 0

## VISIT DATA

**Name of Physician :** .....

**Consent signed :** yes I\_\_I 1 no I\_\_I 0

(recommended, can be obtained at further visit if not at 1st visit)

**Date of completion of the MFM scale :** I\_\_I\_\_I I\_\_I\_\_I I\_\_I\_\_I\_\_I\_\_I (last day if MFM done over 2 days)  
  dd      mm      yyyy

**Diagnosis :** Confirmed : I\_\_I 1 suspected : I\_\_I 0

**Genetic testing :** yes I\_\_I 1 no I\_\_I 0 If yes : year of samplings : I\_\_I\_\_I\_\_I\_\_I

**Participation to a clinical trial presently or previously (or since last visit) ?** yes I\_\_I 1 no I\_\_I 0

If yes, specify : DMD steroids I\_\_I 1, ASIRI I\_\_I 2, MFM-20 validation I\_\_I 3, PTC 124 I\_\_I 4, TROPHOS1 I\_\_I 5,

Grades of Severity I\_\_I 6

Other I\_\_I : specify ..... (to be added by Montpellier centre)

**Date of inclusion in the trial :** I\_\_I\_\_I I\_\_I\_\_I I\_\_I\_\_I\_\_I\_\_I **Date of end:** I\_\_I\_\_I I\_\_I\_\_I I\_\_I\_\_I\_\_I\_\_I  
  dd      mm      yyyy  dd      mm      yyyy

Ongoing I\_\_I

**Medications ongoing (or modified or initiated since last visit) ?** yes I\_\_I 1 no I\_\_I 0

Si yes, complete the table «Concomedications» page 9



## DATA AT COMPLETION OF THE MFM

### INFORMATIONS CONCERNING THE MFM EXAMINER:

First Name and last name: .....

Year of first experience in the evaluation of Neuromuscular disorders : I\_\_I\_\_I\_\_I\_\_I yyyy

Date of initial training validated (test of validation passes) with the MFM I\_\_I\_\_I I\_\_I\_\_I I\_\_I\_\_I\_\_I\_\_I dd mm yyyy

Date of last participation to a session training of reactualisation of the MFM : I\_\_I\_\_I I\_\_I\_\_I I\_\_I\_\_I\_\_I\_\_I dd mm yyyy

**Fatigue/tiredness** of patient at start of completion compared to usual state :

Ask : «How do you feel compared to your usual state of wellbeing? »

Better than usual	I__ I 1
As usual	I__ I 2
More tired than usual	I__ I 3
Far more tired than usual	I__ I 4

**Completion of the MFM:** 32 items I\_\_ I 1

20 items I\_\_ I 2 (for subjects younger than 7 years – the items highlighted in grey in the scale)

Are both sides tested systematically? yes I\_\_ I 1 no I\_\_ I 0

*Si YES, complete for items tested both sides, first the side chosen by the patient then the other side*

**MOTOR FUNCTION MEASURE (MFM)**

*Sous chaque item, indiquer dans les commentaires si refus, douleur, appareillage lors de la passation.*

Items of the MFM scale	Rating		
	D1 =	D2 =	D3 =
1. 😊 SUPINE, HEAD IN MIDLINE POSITION: holds the head for 5 seconds in midline position and turns it completely from one side to the other. <i>comments</i> : .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
2. SUPINE: raises the head and maintains the raised position for 5 seconds <i>comments</i> : .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
3. 😊 SUPINE: flexes the hip and knee more than 90° by raising the foot during the whole movement.  side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments</i> : .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
4. 😊 SUPINE, LEG SUPPORTED BY EXAMINER: from the plantar flexion, dorsiflexes the foot to at least 90° in relation to the lower part of the leg.  side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments</i> : .....			<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
5. 😊 SUPINE: raises the hand and moves it to the opposite shoulder.  side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments</i> : .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
6. 😊 SUPINE, LOWER LIMBS HALF-FLEXED, KNEECAPS AT THE ZENITH AND FEET RESTING ON THE MAT SLIGHTLY APART: maintains for 5 seconds the starting position then raises the pelvis ; the lumbar spine, the pelvis and the thighs are aligned and the feet slightly apart. <i>comments</i> : .....	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		
7. 😊 SUPINE: turns over into prone and frees both upper limbs from under the trunk.  side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments</i> : .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
8. SUPINE: without upper limb support sits up. <i>comments</i> : .....	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		
9. 😊 SEATED ON THE MAT: without upper limb support, maintains the seated position for 5 seconds and is then capable of maintaining contact 5 seconds between the two hands. <i>comments</i> : .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
10. 😊 SEATED ON THE MAT, THE TENNIS BALL PLACED IN FRONT OF THE PERSON: without upper limb support, leans forward, touches the ball and sits back again. <i>comments</i> : .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	



Items	Report page 6	Cotation		
		D1=	D2=	D3=
20. SEATED ON THE CHAIR OR IN THE WHEELCHAIR, HOLDING THE SHEET OF PAPER: tears the sheet of paper folded in 4, beginning from the fold edge. <i>comments:</i> ..... .....				<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
21. 😊 SEATED ON THE CHAIR OR IN THE WHEELCHAIR, THE TENNIS BALL ON THE TABLE: picks up the ball, and turns the hand over completely holding the ball. side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments :</i> .....				<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
22. 😊 SEATED ON THE CHAIR OR IN THE WHEELCHAIR, ONE FINGER PLACED IN THE CENTER OF THE DIAGRAM: raises the finger and places it successively on the 8 drawings without touching the lines. side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments :</i> .....				<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
23. 😊 SEATED ON THE CHAIR OR IN THE WHEELCHAIR, UPPER LIMBS ALONG THE TRUNK: places the two forearms and/or the hands on the table at the same time without moving the trunk. <i>comments:</i> ..... .....			<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
24. 😊 SEATED ON THE CHAIR: without upper limb support, stands up with the feet slightly apart. <i>comments:</i> ..... .....	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
25. 😊 STANDING WITH UPPER LIMB SUPPORT ON EQUIPMENT: without upper limb support, maintains a standing position for 5 seconds with the feet slightly apart, the head, trunk and limbs in midline position <i>comments:</i> ..... .....	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
26. STANDING WITH UPPER LIMB SUPPORT ON EQUIPMENT: without upper limb support, raises the foot for 10 seconds. side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments :</i> .....	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
27. 😊 STANDING: without support, touches the floor with one hand and stands up again. <i>comments:</i> ..... .....	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			
28. STANDING WITHOUT SUPPORT: takes 10 steps forward on both heels. <i>comments:</i> ..... .....	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			

Items	Report page 7	D1=	D2=	D3=
29. STANDING WITHOUT SUPPORT: takes 10 steps forward on a line. <i>comments:</i> ..... .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		
30. 😊 STANDING WITHOUT SUPPORT: runs 10 meters. <i>comments:</i> ..... .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		
31. STANDING ON ONE FOOT WITHOUT SUPPORT: hops 10 times in place. side: right : <input type="checkbox"/> left : <input type="checkbox"/> contralateral score: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <i>comments :</i> ..... .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		
32. 😊 STANDING WITHOUT SUPPORT: without upper limb support, manages to squat and gets up twice in a row. <i>comments:</i> ..... .....		<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		
<b>TOTAL</b>		<b>D1=</b>	<b>D2=</b>	<b>D3=</b>

Duration of completion : I\_\_I\_\_I\_\_I Minutes

Cooperation of patient : none I\_\_I 0, moderate I\_\_I 1, optimal I\_\_I 2

Comments on overall testing and results obtained: (if nothing particular, report NAD )

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## SUMMARY OF RATINGS

### MFM 32 ITEMS

DIMENSION

TOTAL COTATIONS IN % PER DIMENSION

D1. Standing and transfers  $\frac{\text{Total Dimension 1}}{39} = \frac{\quad}{39} \times 100 = \dots\dots\dots \%$

D2. Axial and proximal motor function  $\frac{\text{Total Dimension 2}}{36} = \frac{\quad}{36} \times 100 = \dots\dots\dots \%$

D3. Distal motor function  $\frac{\text{Total Dimension 3}}{21} = \frac{\quad}{21} \times 100 = \dots\dots\dots \%$

**TOTAL SCORE** =  $\frac{\text{total of ratings}}{32 \times 3} \times 100$

=  $\frac{\quad}{96} \times 100$

=  $\dots\dots\dots \%$

## MFM 20 ITEMS

DIMENSION

TOTAL COTATIONS IN % PER DIMENSION

**D1.** Standing and transfers  $\frac{\text{Total Dimension 1}}{24} = \frac{\quad}{24} \times 100 = \dots\dots\dots \%$

**D2.** Axial and proximal motor function  $\frac{\text{Total Dimension 2}}{24} = \frac{\quad}{24} \times 100 = \dots\dots\dots \%$

**D3.** Distal motor function  $\frac{\text{Total Dimension 3}}{12} = \frac{\quad}{12} \times 100 = \dots\dots\dots \%$

**TOTAL SCORE**  $= \frac{\text{total of ratings}}{20 \times 3} \times 100$   
 $= \frac{\quad}{60} \times 100$   
 $= \dots\dots\dots \%$

**PRESENT MEDICATIONS OR TAKEN WITHIN THE LAST 3 MONTHS**

Report medications taken regularly by patient within the last 3 months (at first MFM) or modified since last evaluation  
 The shaded boxes will be completed by the CRA or the curator

Brand Name or ICD <i>completed par CRA</i>	Indication **	Daily Dose ***	Route (*)	date of start	date of end
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(\*) 1= oral, 2= intravenous, 3= intramuscular, 4= topical, 5= subcutaneous, 6= rectal,  
 7= intra-nasal, 8= transcutaneous, 9= eye drops, 10= vaginal, 11=by inhalation, 12= other,  
 99= unknown

\*\* NO ABBREVIATION Please

\*\*\* Use « PRN» (Pro Re Nata – as needed) where necessary