



Supplementary Table S1. Classic ME/CFS diagnostic criteria of the Canadian Consensus Criteria adapted for pediatrics (left column), and how these were assessed at baseline (middle column) and follow-up (right column)

Classic criteria for the paediatric ME/CFS diagnosis	Diagnostic items from the clinician health questionnaire at baseline	Diagnostic items from the patient health questionnaire at follow-up
The concurrent occurrence of the following classic ME/CFS symptoms must be met for a paediatric ME/CFS diagnosis [1-3], and must have persisted or recurred during the past three months of illness.	Instructions to treating paediatrician: Please tick the yes/no boxes and the other symptom boxes if the patient you have diagnosed with ME/CFS has had any of the following for the past 3 months or longer.	Instructions to ME/CFS patient: Please tick the yes/no boxes and the other symptom boxes if you have had any of the following for the past 3 months or longer.
<p>1. Clinically evaluated, unexplained, persistent or relapsing chronic fatigue which must persist or reoccur for at least three months that:</p> <p>A. Is not the result of ongoing exertion</p> <p>B. Is not substantially alleviated by rest</p> <p>C. Results in substantial reduction in previous levels of educational, social and personal activities</p>	<p>1. Fatigue Criteria</p> <p>Clinically evaluated, unexplained, persistent or relapsing chronic fatigue which must persist or reoccur for at least three months, which is not the result of ongoing exertion, nor substantially alleviated by rest</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>Substantial reduction in pre-illness activity levels</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>1. Fatigue Problems</p> <p>Feelings of constant tiredness, not due to exercise, which does not get better after rest</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>Please estimate and tick how much your illness has affected your ability to participate in school/university/employment:</p> <p><input type="checkbox"/> A lot</p> <p><input type="checkbox"/> A little</p> <p><input type="checkbox"/> Not at all</p>

1. Jason, L., et al., *A pediatric case definition for myalgic encephalomyelitis and chronic fatigue syndrome*. Journal of Chronic Fatigue Syndrome, 2006. 13(2-3): p. 1-44.

2. Post-exertional malaise and/or post-exertional fatigue.	<p>2. Post-exertional malaise criteria</p> <p>Post-exertional malaise/symptom exacerbation</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>2. Energy problems</p> <p>Feeling a loss of energy and concentration even after a small amount of effort when doing activities like walking up a flight of stairs, using a computer, or reading a book</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
3. Unrefreshing sleep or disturbance of sleep quantity or rhythm disturbance.	<p>3. Sleep criteria</p> <p><input type="checkbox"/> Sleep disturbance</p> <p><input type="checkbox"/> Unrefreshing sleep</p> <p><input type="checkbox"/> Problems falling asleep</p> <p><input type="checkbox"/> Frequent waking</p> <p><input type="checkbox"/> Need to nap every day</p>	<p>3. Sleep problems</p> <p><input type="checkbox"/> Easily awakened during the night</p> <p><input type="checkbox"/> Waking up tired</p> <p><input type="checkbox"/> Trouble falling asleep</p> <p><input type="checkbox"/> Often waking up during the night</p> <p><input type="checkbox"/> Need to nap every day</p>
<p>4. Pain (or discomfort) that is often widespread and migratory in nature. At least one symptom from any of the following:</p> <p>A. Myofascial and/or joint pain</p> <p>B. Abdominal and/or head pain</p>	<p>4. Pain criteria</p> <p><input type="checkbox"/> Headaches</p> <p><input type="checkbox"/> Muscle pain</p> <p><input type="checkbox"/> Joint pain</p> <p><input type="checkbox"/> Eye pain</p> <p><input type="checkbox"/> Chest pain</p> <p><input type="checkbox"/> Abdominal pain</p> <p><input type="checkbox"/> Generalised pain</p>	<p>4. Pain problems</p> <p><input type="checkbox"/> Headaches</p> <p><input type="checkbox"/> Muscle pain</p> <p><input type="checkbox"/> Joint pain</p> <p><input type="checkbox"/> Eye pain</p> <p><input type="checkbox"/> Chest pain</p> <p><input type="checkbox"/> Stomach pain</p> <p><input type="checkbox"/> Pain all over</p>

5. Two or more neurocognitive manifestations (i.e., impaired memory, difficulty focusing)	5. Neurocognitive criteria <input type="checkbox"/> Problems with memory and new learning <input type="checkbox"/> Problems with concentration <input type="checkbox"/> Other cognitive problem	5. Problems with your thinking <input type="checkbox"/> Problems with your memory and learning new things (i.e., forgetting things) <input type="checkbox"/> Problems with your concentration (i.e., hard to pay attention or focus during activities like reading, computer/work, watching television) <input type="checkbox"/> Other worries about thinking abilities
6. At least one symptom from two of the following three categories: 1. Autonomic manifestations 2. Neuroendocrine manifestations 3. Immune manifestations	6. Other manifestations Autonomic: <input type="checkbox"/> Orthostatic intolerance symptoms (e.g., <input type="checkbox"/> Palpitations with or without cardiac arrhythmia <input type="checkbox"/> Dizziness <input type="checkbox"/> Vasomotor instability <input type="checkbox"/> Vertigo and/or light-headedness <input type="checkbox"/> Respiratory irregularities <input type="checkbox"/> Intestinal or bladder disturbance with or without irritable bowel syndrome or bladder dysfunction <input type="checkbox"/> Neurally mediated hypotension <input type="checkbox"/> Postural orthostatic tachycardia syndrome	6. Other problems <input type="checkbox"/> Heart beating fast <input type="checkbox"/> Dizziness <input type="checkbox"/> Fainting <input type="checkbox"/> Light-headedness or problems with your balance <input type="checkbox"/> Shortness of breath <input type="checkbox"/> Upset stomach

2. Jason, L., et al., *The Development of a Revised Canadian Myalgic Encephalomyelitis Chronic Fatigue Syndrome Case Definition*. American Journal of Biochemistry and Biotechnology, 2010. 6(2).
3. Jason, L., et al., *Examining criteria to diagnose ME/CFS in pediatric samples*. Journal of Behavioral Health and Medicine, 2010. 1(3): p. 186.

Neuroendocrine:

- ☐ Loss of thermostatic stability (feeling hot, feeling cold) and heat/cold intolerance
- ☐ Abnormal appetite, weight change
- ☐ Loss of adaptability and tolerance for stress, worsening of symptoms with stress and slow recovery, and emotional lability
- ☐ Hypersensitivity to touch/noise/light

Immune:

- ☐ Recurrent flu-like symptoms and/or general malaise
- ☐ Recurrent sore throat
- ☐ Tender lymph nodes
- ☐ Susceptibility to viruses/illnesses
- ☐ Hypersensitivity to medications and/or chemicals

- ☐ Often feel too hot or too cold
- ☐ Changes in weight and appetite
- ☐ Feel worse than I normally do when I'm stressed
- ☐ Bothered more than normal by bright light, touch and loud noise

- ☐ Body aches
- ☐ Muscles feel weak
- ☐ Get the shakes
- ☐ Often have a sore throat
- ☐ Feel or get sick often
- ☐ When taking medicine or other chemicals, you:
 - ☐ Feel sick
 - ☐ Vomiting