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### QEESI Results



Results

Instructions

Symptom Bar

HEAD

COG

AFF

NM

MS

SKIN

GU

GI

COR

AIR/NM

0

2

4

6

8

10

HEAD = Head-related symptoms

COG = Cognitive symptoms

AFF = Affective symptoms

NM = Neuromuscular symptoms

MS = Musculoskeletal symptoms

SKIN = Skin-related symptoms

GU = Genitourinary symptoms

GI = Gastrointestinal symptoms

COR = Heart/chest-related symptoms

AIR/NM = Airway or mucous membrane symptoms

Before exposure event:

Additional Sensitivities: Scented laundry products 8

Notes: Best to avoid crowds. Very isolating.

After exposure event:

Additional Sensitivities: none

Notes: none

Interpreting the QEESI

In a study of 421 individuals, including four exposure groups and a control group, the QEESI® provided sensitivity of 92% and specificity of 95% in differentiating between persons with multiple chemical intolences (MCI) and the general population (Miller and Prihoda 1999a,b).

Cronbach's alpha reliability coefficients for the QEESI®'s four scales—Symptom Severity, Chemical Intolerances, Other Intolerances and Life Impact—were high (0.76-0.97) for each of the groups, as well as over all subjects, indicating that the questions on the QEESI® form scales showing good internal consistency. Pearson correlations for each of the four scales with validity items of interest, i.e., life quality, health status, energy level, body pain, ability to work and employment status, were all significant and in the expected direction, thus supporting good construct validity.

Information on the development of this instrument, its interpretation, and results for several populations have been published (Miller and Prihoda 1999a,b). Proposed ranges for the QEESI®'s scales and guidelines for their interpretation appear in Tables 1 and 2 below:

Table 1. Criteria for low, medium, and high scale scores

Scale/Index	Exposure Score		Score		
	Before	After	Low	Medium	High
Symptom Severity	0	55	0-19	20-39	40-100
Chemical Intolerance	9	58	0-19	20-39	40-100
Other Intolerance	6	5	0-11	12-24	25-100
Life Impact		49	0-11	12-23	24-100
Masking Index		4	0-3	4-5	6-10

Table 2. Distribution of subjects by group using "high" cutoff points for symptom severity (≥ 40) and chemical intolerances (≥ 40), with masking low or not low (< 4 or ≥ 4)

Degree to Which MCI is Suggested <sup>2</sup>	2a. Risk Criteria <sup>1</sup>			Masking Score
	Symptom Severity Score	Chemical Intolerance Score		
Very suggestive	≥ 40	≥ 40		≥ 4
Very suggestive	≥ 40	≥ 40		< 4
Somewhat suggestive	≥ 40	< 40		≥ 4
Not suggestive	≥ 40	< 40		< 4
Problematic	< 40	≥ 40		≥ 4
Problematic	< 40	≥ 40		< 4
Not suggestive	< 40	< 40		≥ 4
Not suggestive	< 40	< 40		< 4
2b. Percentage of Each Group Meeting Risk Criteria				
Controls n=76	MCS - No Event n=90	MCS - Event n=96	Implant n=87	Gulf War Veterans n=72
7	16	23	39	45
0	65	66	36	4
3	1	2	16	26
0	0	2	3	6
7	3	1	1	0
3	13	4	2	0
68	1	0	2	18
12	1	2	1	1
100	100	100	100	100

<sup>1</sup> Subjects must meet all three criteria, i.e., Symptom Severity, Chemical Intolerance, and Masking scores, as indicated in each row of this table.

<sup>2</sup> "Very suggestive" = high symptom and chemical intolerance scores.

"Somewhat suggestive" = high symptom score but possibly masked chemical intolerance.

"Not suggestive" = either (1) high symptom score but low chemical intolerance score with low masking, or (2) low symptom and chemical intolerance scores.

"Problematic" = low symptom score but high chemical intolerance score. Persons in this category with low masking (<4) may be sensitive individuals who have been avoiding chemical exposures for an extended period (months or years).