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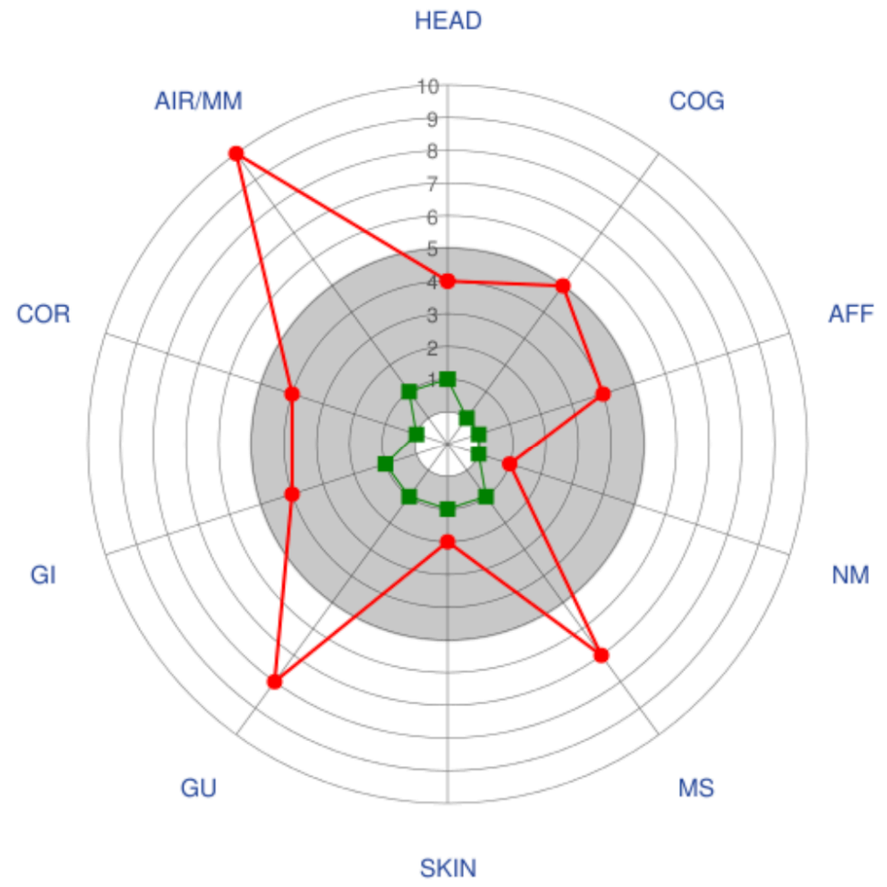
# QEESI Results

Results | Instructions

**Symptom Star**




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 intoleances (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**

| | Exposure Score | | Score | | |
|---|---|---|---|---|---|
| **Scale/Index** | **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)**

| 2a. Risk Criteria[1] | | | |
|---|---|---|---|
| **Degree to Which MCI is Suggested[2]** | **Symptom Severity Score** | **Chemical Intolerance Score** | **Masking 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 |

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

[2] "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).