COGNITIVE CHEMO FOG DIAGNOSTIC TEST CAB-CF
RESULTS REPORT

JEFF WALKER
DATE OF ASSESSMENT: 01/02/18
BIRTHDAY: 15/07/62
AGE: 55

Symptoms of Chemo-Fog

Cognitive risks
Physical Symptoms
Emotional Symptoms

LOW RISK  MODERATE RISK  HIGH RISK

PURCHASE THIS ASSESSMENT
MODERATE RISK OF CHEMO-FOG EFFECT

Jeff Walker's Results

ASSESSMENT

SYMPTOMS

11/21

A moderate risk has been detected, possibly associated with the Chemo-Fog effect.

No apparent risk range: 0-7

Symptoms detected: 11

COGNITIVE RISKS

1/7

No significant risk associated with the Chemo-Fog effect has been detected.

No apparent risk range: 0-2

Detected risks: 1

EVALUATED RISKS AND SYMPTOMS

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<th>EVALUATED RISKS AND SYMPTOMS</th>
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<td>9</td>
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<tr>
<td>Cognitive risks</td>
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CONCLUSIONS

- We recommend clarifying what causes the symptoms shown in Jeff since you have responded to exclusion criteria that may be incompatible with the Chemo-Fog effect.

Use this code to get a 25% on the clinical brain training program: Chemo-Fog

*This assessment is not a diagnostic test, but rather a tool to help detect and assess the risk of having physical, psychological and cognitive symptoms associated with the Chemo-Fog effect.*
CHEMO FOG ASSESSMENT DESCRIPTION

Jeff, 55 years old, took the cognitive assessment for cancer patients “Chemo-Fog” on 01/02/18. The initial questionnaire adapts to the criteria, signs, and symptoms of the Chemo-Fog effect. The cognitive scores are evaluated based on clinical scales and on normalized, validated tests for 55 years of age.

The CogniFit Computerized Chemo-Fog Evaluation (CAB-CF) consists of a series of clinical questions and a set of practical tasks with a total duration of about 30-40 minutes. The CAB-CF is a scientific resource that makes it possible to evaluate the risk index of suffering from Chemo-Fog effect during the oncology process, evaluating the main neuropsychological factors identified in the scientific literature for this disorder.

The results presented in this report are a reflection of the user’s performance on a specific day and at a specific time. User performance may vary depending on the time of day, level of comfort, alertness, and a number of other factors. The results and data in this report do not reflect a diagnosis and should be reviewed and interpreted by a qualified healthcare professional (psychologist, psychiatrist, neurologist, etc.) and should be used as a complement to a clinical consultation.

The results from this assessment offer a base on which to identify support strategies or to get professional help. This cognitive screening is designed to provide valuable information to help objectively assess the different neuropsychological factors of those people who are suspected of cognitive decline after the cancer process.

THE CAB-CF REPORT IS MADE UP OF THREE PARTS:

SYMPTOMS
The answers from the questionnaire will be focused on the following areas:
- Physical Symptoms
- Emotional Symptoms
- Symptoms of Chemo-Fog

COGNITIVE RISKS
In this section, you will see a circular diagram next to each evaluated area, which will indicate the user’s score based on their percentile and normalized for their age and gender. For example, a score of 500 would be calculated depending on the user’s age group. CogniFit’s values are calculated in percentiles but are shown adjusted on a scale of 0-800. As such, the higher score, the better.

Green: Cognitive strengths
Yellow: Below-average cognitive skills
Red: Cognitive weaknesses

CONCLUSIONS
At the end of the report, you will find:
- A description of the risk index and the effects on cognitive profile and detected symptoms.
- Specific recommendations and personalized plan of action.
SYMPTOMS

Overcoming a cancer process entails a series of consequences that we can group together in different areas such as the emotional, physical and cognitive areas. A large number of patients verbalize that they have trouble concentrating, forget more frequently, they can’t think clearly or have lack of clarity. This cognitive decline can be caused by many factors: age, gender, medication, emotional stress, anxiety, and cancer type. Pioneering studies in this area are currently underway since cancer survival patients are increasing and side effects to the cancer process become evident after recovery.

JEFF’S SYMPTOMS SHOW A MODERATE RISK FOR THE CHEMO-FOG EFFECT

SYMPTOMS OF CHEMO-FOG

HIGH RISK
This term is used to describe changes in memory, attention, concentration, and ability to perform various mental tasks associated with receiving chemotherapy and hormone therapy treatments for cancer. In these cognitive deficits, there are other factors besides medication, such as age, gender or type of cancer.

PHYSICAL SYMPTOMS

LOW RISK
Both cancer treatment, the disease itself and hospitalization entail physical, digestive, metabolic, motor, altered sleep patterns or changes in one’s own image that can affect to a greater or lesser extent the patient who has undergone an oncological process.

EMOTIONAL SYMPTOMS

LOW RISK
Cancer diagnosis and disease development generate considerable psychological distress in patients and their families. Studies show that 25% to 50% of patients diagnosed with cancer experience elevated levels of emotional distress. Recent research shows that symptoms of depression, anxiety and emotional distress in cancer patients is more common than in the general population.
JEFF’S COMPLETE SYMPTOM REPORT

According to the results of the questionnaire, Jeff shows important symptoms of chemo-fog. Therefore, there are symptoms compatible with a decline or decrease in cognitive performance and other possibilities should not be ruled out. It is recommended that this information be provided to a professional to assist in an accurate diagnosis.

IMPORTANT These results are not a diagnosis. This information cannot substitute a formal diagnosis given by a professional, but it can serve as a complementary tool to help make a comprehensive diagnosis.

Physical Symptoms

Symptoms of Chemo-Fog

Emotional Symptoms

LOW RISK

MODERATE RISK

HIGH RISK

JEFF’S PROFILE
IN DETAIL: SYMPTOMS ASSOCIATED WITH THE CHEMO-FOG EFFECT

PHYSICAL SYMPTOMS
LOW RISK
Jeff has no physical symptoms. Both cancer treatment, the disease itself and hospitalization entail physical, digestive, metabolic, motor, altered sleep patterns or changes in one's own image that can affect to a greater or lesser extent the patient who has undergone an oncological process.

EMOTIONAL SYMPTOMS
LOW RISK
Jeff has no emotional symptoms. Cancer diagnosis and disease development generate considerable psychological distress in patients and their families. Studies show that 25% to 50% of patients diagnosed with cancer experience elevated levels of emotional distress.
SYMPTOMS OF CHEMO-FOG

HIGH RISK

Jeff has warning symptoms of decline or decrease in cognitive performance compatible with Chemo-Fog effect. This term is used to describe changes in memory, attention, concentration, and ability to perform various mental tasks that are associated with receiving chemotherapy, hormone therapy treatments and other factors such as age, type of cancer, or gender.

The answers from the questionnaire that indicate that Jeff has a high risk of cognitive decline are:

- Has trouble remembering the names of things (people, objects, places) than before.
- Makes mistakes that they didn’t make before.
- Has more trouble planning and organizing their time than before.
- Has trouble concentrating on reading a book or watching a movie.
- Needs their day planner more than ever to remember events and appointments.
- Feels slower when doing any activity.
- Always feels mentally exhausted.
- After cancer treatment, they’ve seen changes in memory, language, or concentration skills.
- Friends, family, or people close to them say that they’re "easily distracted".
COGNITIVE RISKS

In this section, you will see a circular diagram next to each evaluated area, which will indicate the user’s score based on their percentile and normalized for their age and gender. For example, a score of 500 would be calculated depending on the user’s age group. CogniFit’s values are calculated in percentiles but are shown adjusted on a scale of 0-800. As such, the higher score, the better.

NO RISK WAS DETECTED IN JEFF’S COGNITIVE PROFILE

REASONING

642/800
Ability to efficiently use (organize, relate, etc.) acquired information.

MEMORY

366/800
Ability to retain and manipulate new information and recover past memories.

ATTENTION

576/800
The ability to filter distractions and concentrate on relevant information.

COORDINATION

520/800
The ability to efficiently and precisely carry out organized movements.

PERCEPTION

296/800
Ability to interpret stimuli from the environment.
LOW RISK

COMPLETE COGNITIVE REPORT FOR JEFF

No risk was found in Jeff’s cognitive profile. The results from the different tasks in the cognitive assessment highlight that Jeff’s cognitive strengths are reasoning, attention and coordination, while memory and perception are areas of improvement. As such, Jeff’s cognitive pattern does not show any cognitive weaknesses consistent with a decline or decrease in cognitive performance (Chemo-Fog effect). We recommend that you provide this information to a professional in order to make a more precise diagnosis.

IMPORTANT These results are not a diagnosis. This information cannot substitute a formal diagnosis given by a professional but it can serve as a complementary tool to help make a comprehensive diagnosis.
IN DETAIL: COGNITIVE AREAS ASSOCIATED WITH THE CHEMO-FOG EFFECT

**REASONING**

- Reasoning Score: 642/800

**PLANNING**

Score Received: 642

Jeff has obtained a score in planning appropriate for their age, so it is not an indicator of cognitive decline. Planning is the ability to organize mentally the best way to achieve a goal in the future, such as when we organize a story in our head to tell later. Changes in planning are described in the Chemo-Fog effect. Planning difficulties pose problems in structuring thinking, ideas, day-to-day activities or any plan that requires some foresight and organization.

**MEMORY**

- Memory Score: 366/800

**SHORT-TERM MEMORY**

Score Received: 400

Jeff has obtained a score in short-term memory below of what is expected for their age, which is compatible with moderate cognitive decline associated with Chemo-Fog. Short-term memory is the ability to keep a small amount of information for a short period of time, such as when we retain the beginning of a sentence to understand it as a whole. A problem in short-term memory may alter the understanding of what we hear, by not properly retaining the information that comes to our senses. According to the latest research shows that patients after a cancer process observe a poorer functioning in short-term memory.

**WORKING MEMORY**

Score Received: 331

Jeff has obtained a score in working memory below of what is expected for their age, which is compatible with moderate cognitive decline. Usually, patients following a cancer process verbalize a decline in working memory, which is the ability to retain and manipulate information necessary for complex cognitive tasks, such as comprehension, learning, and reasoning. A deficiency in working memory may mean difficulty remembering daily tasks, appointments or turning off the light before leaving home. The neurotoxicity of the drugs used in cancer processes, stress and anxiety seem to justify this decline in working memory in cancer patients.
Jeff has obtained scores that indicate that focused attention is appropriate for his age, so it is not a cognitive indicator associated with the Chemo-Fog effect. Focused attention can be defined as the ability of our brain to focus our attention on an objective stimulus, regardless of how long it lasts. Lack of attention and concentration problems are often described by patients who have cognitive impairment following an oncological process. This attentional deficit influences everyday activities such as reading a book, following a conversation or watching a TV program.

Jeff has obtained a score in updating appropriate for their age, so it is not a cognitive indicator associated with the Chemo-Fog effect. Cognitive updating can be defined as the ability to monitor the behavior we conduct and make sure that it complies with the prepared action plan.

Jeff has obtained a score in response time appropriate for their age, so it is not an indicator of cognitive decline. Response time is the ability to perceive and process a simple stimulus and respond to it, such as answering a specific question. People who have undergone an oncological process and verbalize having cognitive difficulties refer to a “mental nebula” as if it were slow to think or think clearly, this manifests itself in a slow response time because it is likely that they have more difficulties to give responses in an agile and fluid way.
Jeff has obtained a score in recognition below of what is expected for their age. This might be an indicator associated with moderate cognitive decline. Recognition can be defined as the ability of our brain to identify the stimuli we have previously perceived (situations, people, objects, etc.). Recognition and other visual disturbances have been described as possible cognitive sequelae of chemotherapy and the cancer process, which can affect reading, driving, and other daily activities.
EXECUTIVE FUNCTIONS IN THE CHEMO-FOG EFFECT

Executive functions are a set of sophisticated cognitive skills that make our behavior purposeful. According to the description, we found that the cognitive abilities most affected by the Chemo-Fog effect are the executive functions such as planning, work memory, focused attention and updating among others.

IT IS POSSIBLE THAT JEFF:

WORKING MEMORY
- Has trouble remembering information if abbreviations and acronyms are not used.
- Forgets what they were saying if they are interrupted.

FOCUSED ATTENTION
- Is able to concentrate without problems and not get distracted easily.
- Completes things you have to do quickly and efficiently.

PLANNING
- Calculates time and steps required for a task.
- Knows easily how to start doing a task.

UPDATING
- Reviews their actions and take care of the details.
- Is able to detect and correct mistakes.
The oncological process and the effects of medication can lead to a possible decline in some executive functions. Jeff has obtained executive function indices that indicate that these abilities are appropriate for their age, so it is not an indicator of a cognitive profile compatible with cognitive decline. Jeff’s strongest areas in the executive functions are planning, focused attention and updating, while working memory is an area of improvement. This is why we recommend that you provide this information to a professional to help make a more precise diagnosis.

**IMPORTANT** These results are not a diagnosis. This information cannot substitute a formal diagnosis given by a professional, but it can serve as a complementary tool to help make a comprehensive diagnosis.
CONCLUSIONS

Jeff has responded affirmatively to an exclusion criterion for the Chemo-Fog effect, which means that differential diagnosis and co-morbidity must be established with other possible disorders by a qualified professional (psychologist, psychiatrist or neurologist). This criterion may exclude the possibility of suffering from symptoms associated with the cancer process.

It is essential that a qualified professional (psychiatrist, psychologist, neuropsychologist) establish the diagnosis taking into account the exclusion criteria answered by Jeff in the questionnaire:

- Has not had cancer in the last three years.

In addition to the interpretation of symptoms and cognitive profile assessed, the following criteria should be taken into account to ensure the validity of the diagnosis by a qualified professional:

**General criteria from the questionnaire that Jeff responded YES to:**
- Frequently uses a tablet or touchscreen.
- Didn’t used to feel like sad, dejected, or apathetic, and has been feeling like this for more than two weeks.
- Has had cancer at some point in their life.
- Their body is free from substances (medicine or drugs) that may cause these cognitive changes and/or difficulties.
- Frequently uses a computer mouse.
- Is right-handed.
- Has received hormone or chemo therapy.

**General criteria from the questionnaire that Jeff responded NO to:**
- Uses glasses or contact lenses.
- This lack of concentration, impulsiveness, and restlessness are sporadic.
- Has had cancer in the last three years.
- Uses hearing aids.

Due to the answers provided in the questionnaire, it is necessary to establish a differential diagnosis and co-morbidity with other possible disorders by a qualified professional (psychologist, psychiatrist or neurologist).

We recommend that you review why Jeff shows symptoms compatible with Chemo-Fog by studying the co-morbidity with other diseases or other causes.

Use this code to get a 25% on the clinical brain training program: Chemo-Fog

Please be sure that all of the questions have been answered carefully and correctly, and that the assessment was completed in a quiet room free from distractions, as this may alter results. The data in this report corresponds to a specific time in Jeff’s life and may vary over time.