

Fatiguing Illnesses (CIRS)

(CFS, FM, MCS, Chronic Lyme, etc)

Chronic Fatiguing Illnesses are associated with the following symptoms:

- Unexplained fatigue that
- Interferes significantly with functioning, and is associated with at least 2 of:
 - Brain fog,
 - Unrestful sleep,
 - Diffuse achiness,
 - Bowel dysfunction,
 - Unexplained neuropathy,
 - Recurrent and/or persistent infections or flu-like symptoms, and/or
 - Post-exertional malaise (increased fatigue after exercise).

Chronic fatiguing illnesses are all mediated by **persisting inflammation** in the immune system. They can be initially triggered by combinations of some kinds of infections, toxic chemicals, mold toxins, and heavy metals, and aggravated by stress and poor nutrition. Depending on their causes and most-affected organ systems, they may be **diagnosed by their symptoms** as:

- "Chronic Fatigue Syndrome",
- "Fibromyalgia",
- "Multiple Chemical Sensitivities" (Chemical Injury),
- "Chronic Lyme Syndrome" (or Post-Lyme Syndrome),
- "Chronic Mold Toxicity",
- Some types of Dr Dale Bredeesen's classification of dementias.

This is different than in acute infections, when the innate branch of the immune system makes a nonspecific quick emergency response to attack the invader, while also causing acute symptoms such as weakness, fever and muscle aches. Within several days, the more-sophisticated adaptive branch of the immune system has had time to learn to design and produce specific antibodies against this kind of infection. Then it signals the innate immune system to retire to the sidelines, so its acute symptoms disappear. The adaptive immune system remembers the molecular patterns associated with this infection, and remains ready to respond more quickly the next time. (Vaccines work the same way, by exposing the immune system to non-infectious molecules from these invaders, to teach the immune system how to respond quickly to a future infection.)

However, in some situations, such as when the invading molecules are too small and/or are modern toxic chemicals that the immune system was not designed for, the adaptive immune system is not able to take over. Then the **innate immune system** is never turned off, and **can remain persistently activated** for months or years (**Chronic Inflammatory Response Syndrome, or CIRS**). While quick immune response is vitally important for defending the body against pathogens and cancer cells, chronic persistent inflammation damages the body and wears out the immune system's defenses, causing these chronic fatiguing symptoms (like "chronic flu").

Specialized testing is needed to evaluate and treat diseases mediated by chronic inflammation, a new and evolving field. Many chronic diseases are caused or exacerbated by chronic inflammation. These symptoms seldom improve with time without appropriate individualized treatments to address the causes. Traditional treatments just treat symptoms.