

## Cessation of the Interoception, the Death Due to Brain in Neurodegenerative Diseases Alzheimer's and COVID-19

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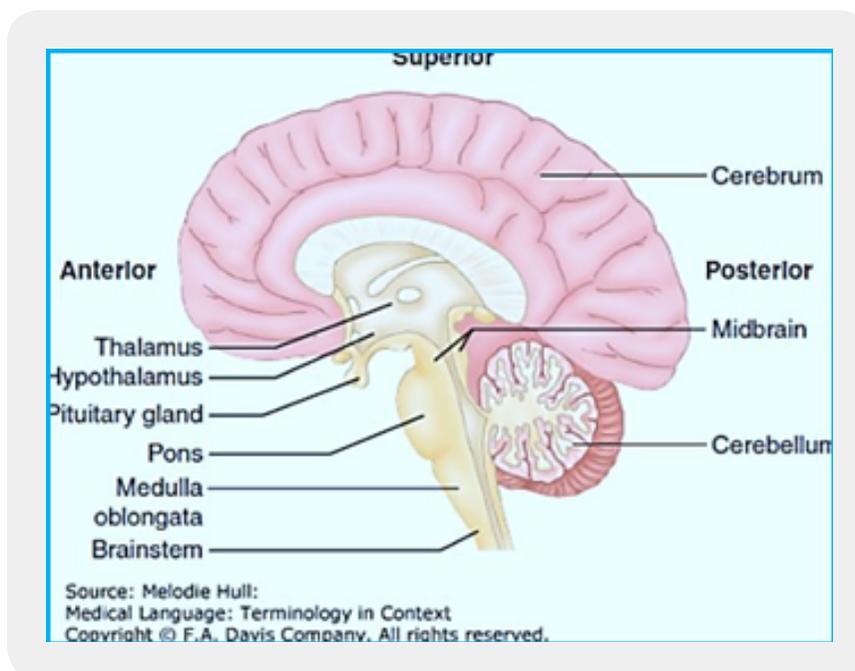
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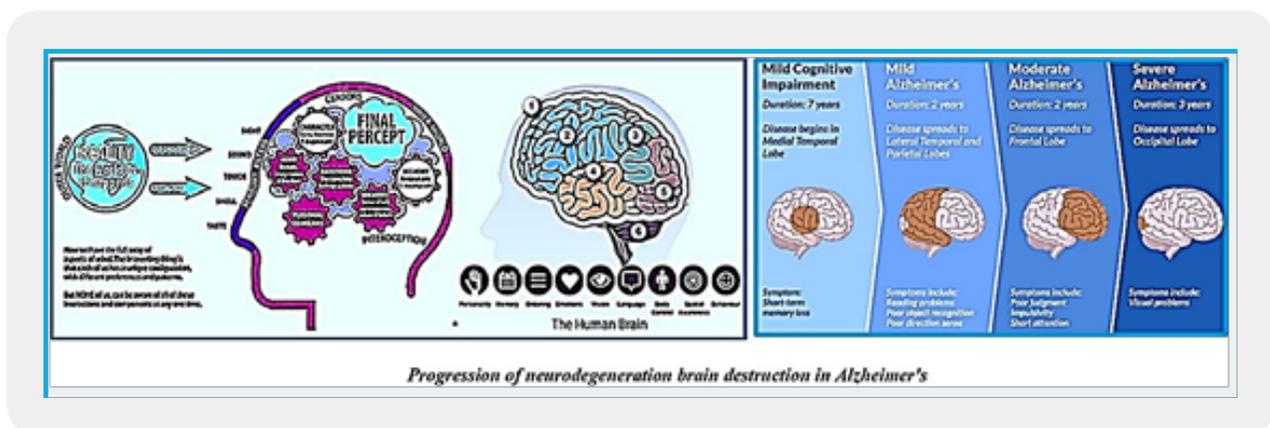


## Foreword

Interoception [1] refers to the process by which nervous systems senses, interprets, incorporates signals originating within the body, and providing moment-to-moment control of the body's internal organs across conscious and unconscious systems. Conceptual facial signaling is considered a component process of Reflexes, impulses, emotions, drives, adaptive responses, and cognitive and emotional experiences, while emphasizing things Contributions to maintaining homeostatic function, body regulation and survival [2]. It is a complex process encompassing multiple dimensions, such as accuracy, learning and awareness. In humans, this is where all life systems integrated and operated to enable life in the organism [3,4].

Interoception, sensing of intestinal body signals, involves the interplay between neural and autonomic mechanisms. Clinical studies in this area have focused on patients suffering from neurological and psychiatric disorders, and show that impairment of relevant brain mechanisms may alter interfunctional functions differently. However, the relationship between changes in the peripheral heart system and neuro-cognitive markers of facial preparation remains unexplained [5].

The slowly (30-10 years) crawling of the disease in the brain may present a sort of inflammation of the brain caused by protecting with antimicrobial agents like for example amyloid beta, insulin, amylin, and many more agents, killing the microbes [6]. This in addition to the immune substances like cytokines ("cytokines storm"[7]), and T and B cells, dendrites and macrophages that can attack in addition to the microbes, also the healthy brain neuroic tissue.



## The Main Symptoms of Brain Degeneration

Symptoms of cerebral degeneration may depend on the type of neurodegenerative disorder you may be experiencing. Common symptoms include:

- Loss of inhibitions
- Anxiety
- Indifference

- Fermentation
- Memory loss
- Forgetfulness
- Confusion
- Changing mood

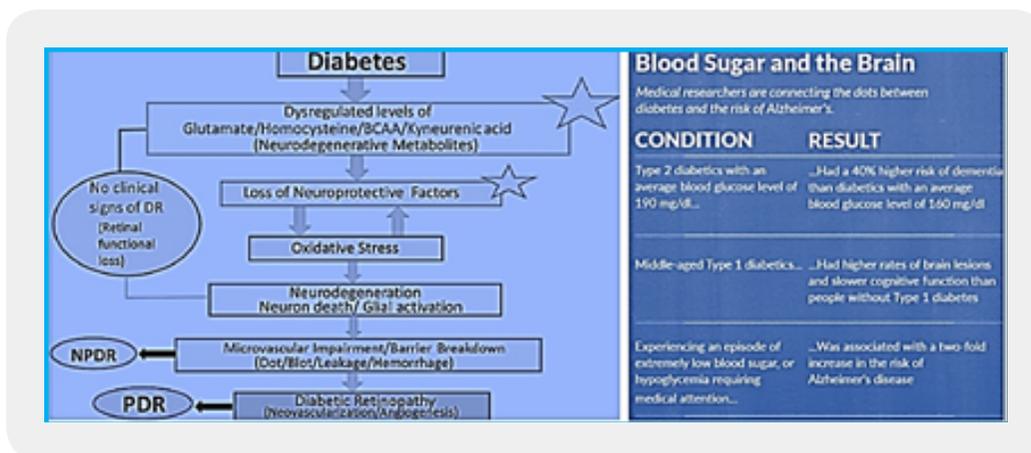
New symptoms can develop and symptoms usually worsen over time as the condition progresses. There is currently no cure for degenerative diseases, however early diagnosis and treatment can be very helpful.

Traditional treatment involves medication and behavioral management, however, natural treatment methods, including changes in diet and lifestyle may improve the condition or delay the symptoms significantly. These diet and lifestyle strategies are also an absolute key to preventing brain degeneration. Before we dive into natural solutions for brain degeneration [8].

### Blood Sugar Imbalance

When you hear the term blood sugar imbalance, you are probably thinking of diabetes. Blood sugar imbalance, however, not only increases your risk of diabetes but also harms your brain health. If your diet is rich in processed carbohydrates and refined sugar and low in vegetables, healthy fats and clean protein, you set yourself up for an imbalance in blood sugar.

Blood sugar imbalance can lead to memory problems, brain fog, nervousness, mood swings, lightheadedness, cravings and fatigue. Eating a snack or a quick meal of carbs may cause you to have an outburst of energy, but it will also lead to a sugar drop shortly thereafter characterized by brain fog and fatigue [9,10].



*Figure: Effect of diabetes on the brain [11]*

## COVID-19 and Alzheimer's Disease

In our aging society, dementia itself has emerged as Pandemic status. Thus, the management of an epidemic in an epidemic such as COVID- 19, raises Some concerns. First, the combination of two potential risk factors such as age and dementia and mortality In patients affected by COVID-19. Second, the compound The effect of COVID-19 eruption and dementia in parallel: the effect of incarceration and social distancing on Neurocognitive performance of these fragile patients, necessary Research better. Vulnerability to infection It is well documented that elderly people are in hospital Higher risk of death after SARS-CoV-2 infection. Indeed, the median age is estimated at COVID-19 Death is 81 years, and the death rate among patients At age  $\geq 80$  years it is  $> 20\%$  [12]. However, data are limited Available for COVID-19 in elderly patients and few reports Focus on patients aged 80-80 [13]. all of this Elderly patients without dementia have been reported. What Occurs when two potential risk factors (age and dementia) Exist together?

Covino *et al.* Provided risk stratification This population. Results from this central, retrospective observational study conducted at the Reference Center

For COVID-19 in central Italy, showed that the risk of death Cannot depend on age while severe dementia itself May be a relevant risk factor in these patients. News

With these testimonies, Bianchetti *et al.* Frequency assessment, Clinical presentation and dementia outcomes in patients hospitalized for COVID-19 infection. Data from many Subjects hospitalized in an acute hospital in the Brescia district, Northern Italy was analyzed retrospectively. Vs Patients without dementia, patients affected by dementia

Showed higher mortality by about 40%. Taken together, These inventions suggest dementia, especially in the advanced During the disease, it may be an important risk factor for mortality in COVID-19 patients [14].

## Bibliography

1. Craig, A. (2002). How do you feel? Interoception: the sense of the physiological condition of the body. *Nat. Rev. Neurosci.*, 3, 655-666.
2. Ralph Adolphs, Oliver Cameron, G., Hugo Critchley, D., Paul Davenport, W., Justin Feinstein, S., Jamie Feusner, D., Sarah Garfinkel, N., *et al.* (2018). Interoception and Mental Health: A Roadmap. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 3(6), 501-513.
3. Indira Garcia-Cordero, Lucas Sedeno, Laura de la Fuente, Andrea Slachevsky, Gonzalo Forno, Francisco Klein, Patricia Lillo, *et al.* Feeling, learning from and being aware of inner states: interoceptive dimensions in neurodegeneration and stroke. 2016 Feeling, learning from and being aware of inner states: interoceptive dimensions in neurodegeneration and stroke. *Phil. Trans. R. Soc.*, 371, 20160006.
4. Couto, B., Adolphi, F., Sedeño, L., Salles, A., Canales-Johnson, A., Alvarez-Abut, P., Garcia-Cordero, I., *et al.* (2015). Disentangling interoception: insights from focal strokes affecting the perception of external and internal milieus. *Front. Psychol.*, 6, 503.

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Shimon Shatzmiller (2020). Cessation of the Interoception, the Death Due to Brain in Neurodegenerative Diseases Alzheimer's and COVID-19. *CPQ Microbiology*, 5(1), 01-05.

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5. Adrián Yoris, Sofia Abrevaya, Sol Esteves, Paula Salamone, Nicolás Lori, Miguel Martorell, Agustina Legaz, *et al.* (2017). Multilevel convergence of interoceptive impairments in hypertension: New evidence of disrupted body-brain interactions. *Human Brain Mapping*, 39(4), 1563-1581.
  6. Shimon Shatzmiller (2017). Gut Microbes Start Neurodegeneration - The Inflammation Approach. *EC Pharmacology and Toxicology*, SI.01, 01-03.
  7. Shimon Shatzmiller, Galina Zats, Inbal Lapidot, Ludmila Buzhansky & Rami Krieger. Cytokine Storm: A Coronavirus Complication. *CPQ Microbiology*, 3(6), 01-07.
  8. How Is Alzheimer's Disease Treated?
  9. Blood Sugar in the Brain.
  10. Shimon Shatzmiller, Galina Zats, M., Inbal Lapidot & Ludmila Buzhansky (2018). Diabetes and Alzheimer's Disease. *BAOJ Neurol.*, 4(1), 051.
  11. Mohammad Shamsul Ola (2014). Neurodegeneration in Diabetic Retina and Its Potential Drug Targets. *Current Neuropharmacology*, 12(4), 80-86.
  12. Onder, G., Rezza, G. & Brusaferro, S. (2020). Case-fatality rate and characteristics of patients dying in relation to COVID-19 in Italy. *JAMA*, 323(18), 1775-1776.
  13. a) Liu, K., Chen, Y., Lin, R. & Han, K. (2020). Clinical features of COVID19 in elderly patients: a comparison with young and middle-aged patients. *J Infect.*, 80(6), e14-e18.  
b) Leung, C. (2020). Risk factors for predicting mortality in elderly patients with COVID-19: a review of clinical data in China. *Mech Ageing Dev.*, 118, 111255.  
c) Wang, L., He, W., Yu, X., *et al.* (2020). Coronavirus disease 2019 in elderly patients: characteristics and prognostic factors based on 4-week follow-up. *Journal of Infection*, 80(6), 639-645.
  14. Ferini-Strambi, L. & Salsone, M. (2020). COVID-19 and neurological disorders: are neurodegenerative or neuroimmunological diseases more vulnerable? *J Neurol*.