

How Masking Contributes to Long Covid

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By [Carla Peeters](#) August 12, 2022 August 12, 2022 [Masks](#), [Public Health](#) 10 minute read

A lingering disorder that can last for months or years is affecting an increasing proportion of the workforce. The symptoms that contribute to Long Covid could be a result of pandemic measures and masking in particular. Increased exposure to microplastics, nanoparticles, chemicals in masks and nasopharyngeal tests parallel many of the symptoms that define Long Covid.

Surveys among thousands of people suggest 7% to 30% of people who tested positive for SARS-CoV-2 virus experienced one or more symptoms for a period longer than 12 weeks. Some people who got Covid-19 early in the pandemic still haven't recovered.

The syndrome Long Covid is complex as symptoms may fluctuate and people go through different stages. Symptoms have been protracted by patients at ICU and those with organ damage, but also occurred in people with only a mild infection. A list of [sixty-two different symptoms](#) define the syndrome of Long Covid. Fatigue, brain fog, breathlessness, anxiety, depression and a loss of smell and taste are among the most frequently found symptoms.

Most scientists and medical doctors – including media – link Long Covid symptoms to the SARS-CoV-2 infection. This would be the first Coronavirus in history causing long-lasting chronic symptoms in a high percentage of the workforce. People with Long Covid can experience social isolation and stigma because of their inability to perform. The rise of Long Covid has created millions of new people with disabilities.

The root cause of the disease is still mysterious. In several case studies and an excellent study published in the *Annals of Internal Medicine* that investigated many diagnostic parameters in people with and without Long Covid, no biological change could explain a link to Long Covid. Some scientists relate the symptoms of Long Covid to other complex diseases of multidisciplinary origin like Alzheimer's disease, Lyme disease, Fibromyalgia, Chronic Fatigue Syndrome or hyperventilation syndrome.

Many countries have started special clinics and funded research especially for studying lingering effects. A one-size-fits-all successful treatment has not been found yet. Thousands or maybe over a hundred million are frustrated at the lack of treatment available. Doctors and scientists prefer a holistic approach, but medical and social services are often understaffed.

Desperate patients with Long Covid symptoms are traveling abroad to private clinics for blood apheresis and the prescription of anti-coagulation drugs, though treatments are still experimental and evidence on effectiveness is still lacking. For some patients these treatments have been successful, for others not.

Covid-19 vaccination has been a hot topic in speeches of politicians and advertising in the media as a motivation for preventing Long Covid. However, a large study among 13 million people published in *Nature Medicine* could only demonstrate a small effect.

A study published in the *Italian Journal of Pediatrics* demonstrated that physical symptoms were restored much faster as compared to mental symptoms, suggesting Long Covid could be related to pandemic measures rather than a viral infection. The risks for Long Covid symptoms have shown to be increased for people with existing chronic diseases, increasing age, and lower income, women being more susceptible than men.

Fear, social isolation, depression and worries for education and decreased income are thought to be related to the symptoms of Long Covid in children with and without a positive PCR test. As the emergency of the pandemic continues a worrying spike in chronic diseases, suicide and excess mortality are noticed at the global level. This indicates the deprivation of a resilient immune system with an increased susceptibility for lingering symptoms of Long Covid.

Symptoms Long Covid link to MIES

At this point there has been limited attention for a possible relation of Long Covid and exposure to chemicals in masks, nasopharyngeal tests and disinfectants. In a meta-analysis by an interdisciplinary team of German physicians, a potential risk of Mask Induced Exhaustion Syndrome (MIES) has been found. The most frequently observed symptoms (fatigue, headaches, dizziness, lack of concentration) as described for MIES overlap with important symptoms for Long Covid syndrome.

The lack of smell and taste during Covid-19 seems to be different as compared to symptoms during the flu. A lack of taste and smell are frequently observed after chemotherapy in cancer treatments and has been linked to malnutrition, inflammation and depression. Also, brain fog is a symptom occurring after chemotherapy. It seems likely that harmful effects by long-term mask-wearing and frequent nasopharyngeal testing with increased exposure to chemicals (not naturally found products) can accelerate symptoms and contribute to Long Covid.

Up to now, the safety of long-term and frequent wearing of masks and taking nasal swab samples in a delicate area in the nose, often by hardly experienced persons, have been poorly investigated. Severe nose bleedings (epistaxis), cerebrospinal fluid leakage, vomiting, dizziness and fainting have been reported. Most frequently used masks and nasopharyngeal tests are derived from China with less strict controls and measures for the presence of hazardous materials.

In several countries masks and nasopharyngeal tests delivered by governments were taken from the market. Microplastics, nanoparticles (graphene oxide, titanium dioxide, silver, ethylene oxide, coloring compounds, fluorocarbon (PFAS) and heavy metals have been found in masks and nasopharyngeal tests. Unfortunately, not all masks and tests used during the pandemic are controlled. A report from the Dutch Public Health institute (RIVM) released in November 2021 stated “the safety of masks cannot be guaranteed.”

The short- and long-term impact of frequent exposure on the physiology and physical and mental functioning of the human body is unknown. Harmful effects for children, who are less able to detoxify, could result in a compromised immune and nervous system resulting in repeated and rare infections with more chronic diseases during aging and less healthy future generations.

Microplastics and nanoparticles withdraw proteins, vitamins and minerals forming bio- corona (microclots), accumulating in important organs (blood, liver, gut, lung tissue), and disturb important physiological and immunological processes

The liver, lungs and gut are important organs in energy metabolism, detoxification and surveillance by the innate immune system. Disrupting a delicate gut-liver-brain axis can relate to fatigue and exhaustion.

Seeking more answers for a Long Covid mystery

The Belgium Public Health Institute, Sciensano, found titanium dioxide in 24 types of masks. A recent publication in Gut showed that exposure to titanium dioxide could exacerbate inflammation of the colon (Colitis Ulcerosa) weakening the innate immune system. Furthermore, titanium dioxide can enter directly into the brain and cause oxidative stress in glial cells (or mast cells), cells with an important role in the proper functioning of the innate immune system and nervous system. Maternal exposure to titanium dioxide during pregnancy may result in impaired memory in the infant. Long-term exposure and high concentrations could even cause DNA damage. Unfortunately, masks with titanium dioxide are still available on the market.

Mental problems, anxiety and depression, have been linked to a change in the microbiome. Researchers from Stanford University observed in patients with gut inflammation (Crohn's disease, irritable bowel syndrome, Colitis Ulcerosa) a link to missing gut microbes as compared to healthy persons. A significantly increased risk of a new onset of psychiatric illness is concentrated in the early post-acute phase of a Covid-19 infection.

A team of Japanese scientists discovered the presence of pathogens (bacteria and fungi) on the inner and outer side of various masks. In case of a disrupted growth of pathogenic bacteria and fungi the body is exposed to a higher concentration of (myco)toxins that often leads to feeling fatigue and sickness.

Overgrowth of facultative anaerobe bacteria (bacteria needing less oxygen) for example methicillin-resistant *Staphylococcus aureus* has been related to mask acne and mask mouth. *Staphylococcus aureus* may cause pneumonia, sepsis and blood poisoning. Many of the exotoxins and secreted enzymes secreted by these bacteria suppress the T cell repertoire of the immune system. The excreted products can also cause aggregation of phagocytes, decreasing phagocytosis resulting in an impaired innate and adaptive immune system.

A long-term albeit small change in the O₂/CO₂ gases in the inhaled air may influence an unfavorable change in the microbiome on the skin, mouth, nose, lungs and gut. Both oxygen and carbon dioxide are the primary gaseous substrate and product respectively, of oxidative metabolism in each cell. Variations in the levels of these gases outside the physiological range can lead to pathological conditions including respiratory and heart problems, permanent injury, immune suppression, increased aging, and altered gene expression for fertility and death. Carbon dioxide poisoning is recognized as an often-forgotten cause of intoxication in the emergency department. Several studies found an increased level of carbon dioxide when wearing masks. This phenomenon was more pronounced during sports.

The laboratory of a South Africa scientist has found significant microclot formation in Long Covid patients and acute Covid patients. Acute Covid-19 is not only a lung disease but affects the vascular and coagulation system. Unfortunately, inflammatory molecules are

missed in normal blood tests as they are entrapped in the fibrinolytic resistant microclots. The presence of the microclots and hyperactivated platelets perpetuates coagulation and vascular pathology, resulting in cells not getting enough oxygen. Oxygen deprivation damages every single organ. Many Covid patients have low oxygen in the blood and are treated with oxygen therapy.

Oxygen deprivation at the cellular level is also described for bio-corona that are formed in the human body when exposed to graphene-oxide and microplastics. Graphene-oxide and microplastics are found in masks and nasopharyngeal swabs and may enter the human body via airways, eyes or food.

Two and a half years into the pandemic the immune system is disrupted by O₂ deprivation and exposure to microplastics, nanoparticles and other toxic chemicals. This leads to an unfavorable change in the microbiome, brain damage, inflammation and the formation of microclots. Microclots could be amyloids formed by excreted bacterial products and/or biocorona, formed by nanoparticle and microplastics. The microclots cannot naturally break down by fibrinolysis and accelerates O₂ deprivation in capillaries and at the cellular level.

Wearing masks and nasopharyngeal swabs could lead to (sudden) death

The results of Foegen's observational study published in *Medicine* strongly suggest that mask mandates caused 50% more deaths compared to no mask mandates. Dr Foegen theorized that hyper-condensed droplets caught by masks are reinhaled and introduced deeper into the respiratory tract responsible for higher viral loads and an increased mortality rate (The Foegen effect). Exposure to microplastics may result in lung fibrosis.

Also, a peer-reviewed study published in April 2022 on mask usage across Europe noted a moderate positive correlation between mask usage and deaths in Western Europe.

Not harm, supporting lives is the purpose of life

The policy of politicians and advisory experts promoting a reintroduction of pandemic measures is a high risk for a disastrous effect for a now chemically poisoned population with a weakened immune system.

In many countries in the world excessive mortality and sickness is observed. Each of the measures including Covid-19 vaccination might have their own contribution to the weakened immune system.

The observed microclots in patients with Long Covid and acute Covid, independent of Covid-19 vaccination, is indicating that any measure that may cause oxygen deprivation or inflammation is a risk for sudden death, and more severe infectious and chronic diseases

(liver, heart problems and neurodegenerative diseases). At this moment it is not known which concentration of microclots and oxygen deprivation may result in severe symptoms or even death.

Above all, after two and a half years into the pandemic, neglecting the basic principles of Public Health, the pandemic measures do not show benefits in reduction of Covid-19 infection and Covid-19 deaths. The policy of mask-wearing and frequent testing is ineffective, expensive, and causes harm to humanity and the environment. Therefore, mask-wearing and frequent testing should be halted immediately worldwide.

The priority need is a political will and governmental funding to focus on strengthening the immune system, preventing malnutrition and famine for all. Moreover, millions of individuals suffering from Long Covid, or side effects of Covid-19 vaccines have the right for personal and financial support. Otherwise many people may become disabled as a result of poor management of this crisis.

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