

Project Description

The global COVID-19 pandemic has left a staggering level of morbidity, mortality, and societal and economic disruption in its wake (CDC, 2020). Initial publications indicated that sudden loss of smell and taste are cardinal, early, and potentially specific symptoms of COVID-19, in both symptomatic and otherwise asymptomatic individuals. While fever and cough are common symptoms of various viral infections, the potential specificity of chemosensory loss to COVID-19 may make it valuable in screening and diagnosis.

Our study published in September 2020 (Parma et al., 2020a) confirms and substantially extends previous reports showing that loss of smell and taste are associated with COVID-19. We found that the majority of our participants with COVID-19 reported a severe reduction in their sense of smell compared to before the onset of illness. Notably, this loss of smell was not associated with self-reported nasal obstruction, consistent with anecdotal reports. Furthermore, we found that qualitative changes in smell (odor distortions or phantoms) were relatively rare. We found that taste, and to a lesser extent, chemesthesia, were also significantly impaired in individuals with COVID-19. Taken together, these results suggest that COVID-19 profoundly affects chemosensory function across multiple sensory modalities, and that disruption of these may be a possible indicator of COVID-19.

Purpose:

With this planned study, I want to investigate persistent problems with smell, taste and chemesthesia (burning in the mouth) in patients who have undergone Covid-19 infection. There are a number of patients who contact the undersigned, at the Department of Oral Surgery and Oral Medicine, Faculty of Dentistry, UiO for treatment of disturbances in smell, taste and burning in the mouth after undergoing Covid-19 infection. This patient group is called Long Covid or Covid-long haulers. The purpose of the study is to investigate the following:

- 1) what kind of problems the subjects have with smell, taste and burning in the mouth
- 2) how long after undergoing Covid-19 infection do the subjects have these problems
- 3) How long does it take after Covid-19 before they get normal smell, taste and burning in the mouth

Individuals and methods:

Subjects with Long Covid will be recruited from the patient group who contact the Faculty of Dentistry, UiO for assessment and treatment. Subjects will undergo a thorough assessment of their sense of smell, taste and chemoesthesia function using an already validated questionnaire and established, internationally validated methods. The sense of smell will be checked using the Sniffin' sticks test, and taste function will be assessed using taste strips. No biological materials will be collected.

The smell test can tell whether subjects are at risk of complete loss of sense of smell (anosmia), reduced sense of smell (hyposmia) or distortion of smell (parosmia). The taste test tells whether subjects are at risk of complete loss of sense of taste (ageusia), reduced sense of taste (hypogeusia) or distortion of taste (dysgeusia).