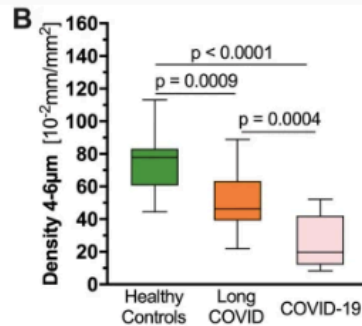
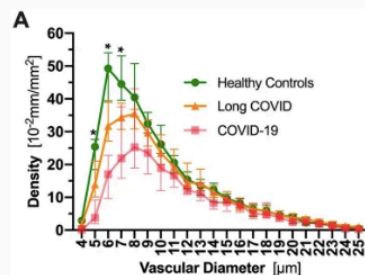


# LONG HAUL COVID

## What is Long Haul Covid and How Can We Help Our Patients?

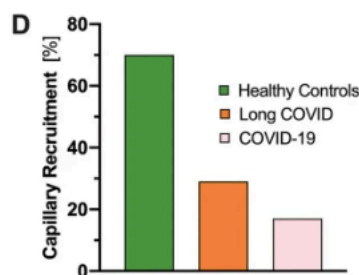
### Vascular Density

Fig. 1



### Capillary Recruitment

Fig. 2



## What is Long-Haul Covid?

COVID-19 is an infectious disease that has been shown in previous studies to display a multi-systemic vascular disease associated with severe microvascular impairment and endothelial injury.

Up to 60% of the COVID-19 patient suffer from long haul covid symptoms even 18 months after the initial infection.

Long haul covid symptoms include shortness of breath during exertion as well as dyspnea at rest, palpitations, fatigue, and mental and cognitive disorders. Why is this happening?

A study was published through the use of a GlycoCheck machine. This study included 58 participants, 27 of whom were long COVID patients with persistent symptoms > 12 weeks after recovery, Fifteen healthy volunteers and a historical cohort of critically ill COVID-19 patients, which served as controls. The goal of this observational research is to determine the main cause of Long-Haul Covid.

## What were the results?

**Vascular density** showed a significant decrease of by 41% in patients with long-haul covid. (Fig. 1)

**Capillary Recruitment** (your ability to pull blood flow when exercising or exertion) also showed a significant decrease in Long haul covid patients: 29% Long Haul, 17% Hospitalized Covid-19 Patient, 70% in healthy individuals. (Fig 2.)

### Conclusion:

COVID-19 leaves a persistent capillary rarefication. Observed damage of the vascular density and long haul covid symptoms reversibility remains unclear with no intervention.