THE MOST IMPORTANT FACTS AT A GLANCE

LONG-/POST-COVID

After an acute SARS-CoV-2 infection, long-lasting symptoms may occur, which are referred to as long COVID if they persist for more than 4 weeks post-infection. When symptoms last beyond 12 weeks, it is called post-COVID syndrome. The prevalence of post-COVID syndrome is approximately 15%. The exact causal relationships have not yet been fully researched. They appear to be multifactorial and may vary between individuals.

MAIN SYMPTOMS

- **very frequent**
  - fatigue
  - limited resilience
  - dyspnoea on exertion
  - headaches, muscle aches, limb pain
- **frequent**
  - coughing
  - sleep disturbances
  - depressive moods
  - anxiety
  - cognitive disturbances
  - stress

CAUSES AND PATHOGENESIS

- **viral reactivations**
- **autoantibodies**
- **low stress hormone levels**
- **inflammatory processes**
- **metabolic changes**
- **mitochondrial dysfunction**

THERAPY

- **regulate tryptophan and catecholamine metabolism (depending on the report)**
  - amino acids (Trp, Phe, Tyr)
  - melatonin
  - griffonia, curcumin, quercetin, indole-3-carbinol, passionflower
- **compensating for nutrient deficiencies**
  - cofactors like vitamin B1, B3, B6, B9, B12, D
  - cofactors like magnesium, selenium, zinc, copper, ...
- **methyl group donors, especially SAM**
- **eliminate inflammations and ROS**
  - omega-3 fatty acids, vitamin C, E
- **treat mitochondrial dysfunction and RNS**
  - e.g. coenzyme Q10, NADH, B12
- **additional phytotherapeutics such as ashwagandha or balm**
- **for viral activations: additional antiviral measures, e.g.**
  - lysine
  - quercetin
  - shiitake
  - spermidine
- **other general approaches:**
  - physiotherapy
  - ergotherapy
  - respiration therapy
  - ozone therapy
  - fibre-rich diet
  - ketogenic diet

DIAGNOSTICS

HAVE THE FOLLOWING EXAMINED

F640 LONG-/POST-COVID
BASIC PROFILE

Material: T928, 2Hep, S

Catecholamine metabolism
- D, NA, A + precursors (Phe, Tyr)

Tryptophan metabolism
- Trp, serotonin
- important metabolites and enzymes

Relevante Cofaktoren
- Vitamine B3, B6 (Cystathionin), B12(MMA), C, D
- Magnesium, Eisen
- BH4 (Tetrahydrobiopterin)

Methylation capacity
- methyl group donors (SAM, betaine, choline)
- methylation activity (SAM/SAH)

Mitochondrial dysfunction (screen)
- coenzyme Q10
- lactate, pyruvate + ratio
- citrate, suberinate
- NO formation (citrulline)
- fatty acid metabolization (L-carnitine)

Immune activation
- neopterin

Intestinal factors influencing inflammation
- TMA, TMAO
- bacterial uremic metabolites

F642 LONG-/POST-COVID
MIDI PROFIL

Material: T928, 2EDTA, 2Hep, S

In addition to the Basic Profile:

Other cofactors
- vitamin B9
- zinc, selenium

Vascular protective factors
- Fettsäurestatus (ω3/ω6-fatty acids)

DIFFERENTIAL DIAGNOSTICS

- **Exclusion of cardiovascular diseases**
  - G560 troponin, NT-proBNP, D-dimers
- **Latent viral or bacterial infections and autoantibodies**
  - K625C viral PCS reactivation screen
  - D375 PCS autoantibody screen
- **Selenium supply**
  - E132 Selenoprotein P
  - E134 Selenoprotein P autoantibodies

For further COVID-related requirements, please refer to the COVID requirements form.

F644 LONG-/POST-COVID
COMPLETE PROFILE

Material: T928, TBio1, 2Hep, S

In addition to the Midi Profile:

Other neurotransmitters
- GABA, glutamate

Hypothalamic-pituitary-adrenal gland axis
- cortisol diurnal profile