

BURNOUT

***Burnout** is a form of exhaustion that occurs when people are permanently overwhelmed. The exhaustion results from prolonged emotional, physical, or psychological stress. Burnout syndrome is often related to work and can have a significant impact on people's health when it is not detected and treated. It can seriously affect health if it is not recognized and treated. According to a study published in 2016, the lifetime prevalence of burnout in Germany is 4.2%. The number has increased in recent years.*

MAIN SYMPTOMS

- **initial phase (warming symptoms)**
 - increased commitment / hyperactivity
 - overestimation of one's own abilities
 - reduction of social contacts to the professional environment
- **progressive course - reduced commitment / social withdrawal**
 - unmotivated, negative thoughts, uninterested, hopeless
 - limited cognitive abilities ("brain fog")
 - reduced performance, fatigue, emotional exhaustion
 - inner restlessness

CAUSES AND PATHOGENESIS

- permanent stress/overload
- missing or insufficient coping strategies
- lack of support
- very high expectations of oneself
- performance pressure

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**
 - coenzyme Q10, NADH, vitamin B12, ...
- **additional phytotherapeutics such as ashwagandha or balm**
- **other general approaches:**
 - stress reduction, relaxation techniques
 - sleep hygiene
 - self-reward
 - regular physical activity
 - whole-food nutrition and weight management
 - reduce or avoid alcohol, nicotine, caffeine, and simple sugars

DIAGNOSTICS

HAVE THE
FOLLOWING
EXAMINED

SF620A BURNOUT BASIC PROFILE

Material: T928

Catecholamine metabolism

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

Tryptophan metabolism

- Trp, serotonin
- important metabolites and enzymes

Relevant cofactors

- vitamin B3, B6 (cystathionine), B12 (MMA)
- BH4 (tetrahydrobiopterin)

Methylation capacity

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

Mitochondrial dysfunction (screen)

- 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

SF620B BURNOUT MIDI-PROFILE

Material: T928, TBio1

In addition to the Basic Profile:

Other neurotransmitters

- GABA, glutamate

Hypothalamic-pituitary-adrenal gland axis

- cortisol diurnal profile

SF620C BURNOUT COMPLETE PROFILE

Material: T923, T928, TBio1, 2EDTA, Hep, S

In addition to the Midi Profile:

Other tryptophan metabolites

- melatonin

Other cofactors

- vitamin B9, D3, Q10
- magnesium, copper

Antioxidant minerals

- zinc, selenium

Vascular protective factors

- fatty acid status (omega-3/omega-6 fatty acids)

ADDITIONS

In s/o food intolerances:

- C044 PreScreen B
- B180 wheat germ agglutinin

DIFFERENTIAL DIAGNOSTICS

■ fatigue

- iron deficiency → G612 small blood count, Fe (s), transferrin, transferrin saturation
- anaemia → D160 complete blood count
- hypothyroidism → F200 TSH, fT3, fT4

■ sex hormone deficiency → O934/O935

- stress intolerance (testosterone, DHEA, cortisol)
- depressive moods (estradiol, testosterone)
- sleep disorders (progesterone, estradiol)

■ irritable bowel symptoms

- see irritable bowel profiles SA710A, SA710B or SA710C