

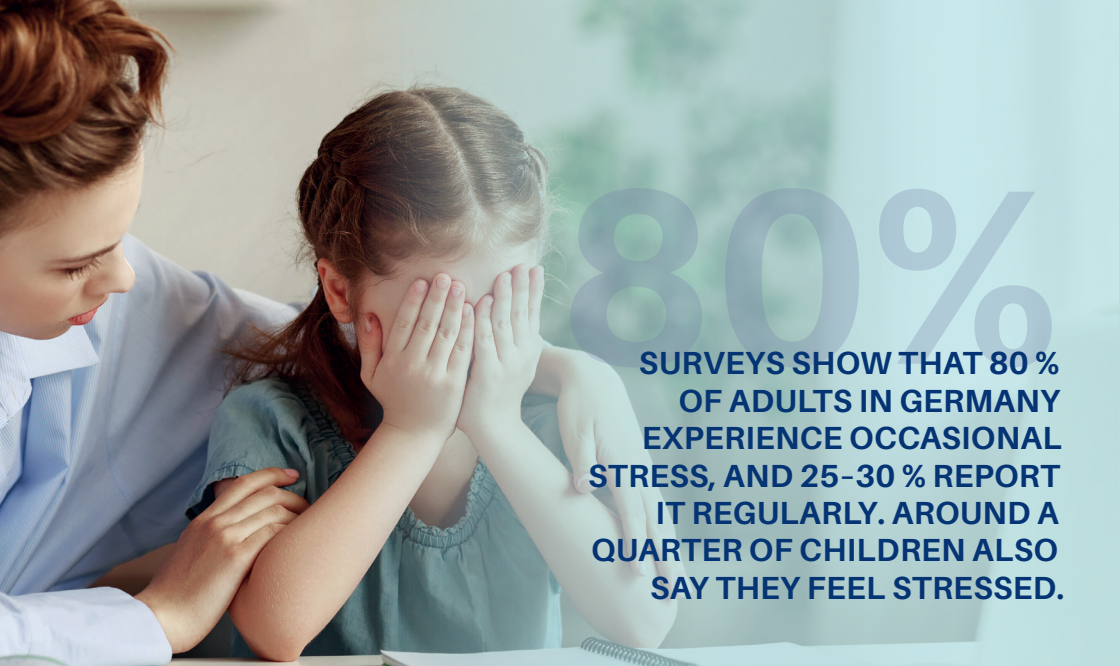
# WHEN STRESS TAKES OVER - HOW TO TAKE CONTROL AGAIN



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**biovis'**  
DIAGNOSTICS



**80%**  
**SURVEYS SHOW THAT 80 %  
OF ADULTS IN GERMANY  
EXPERIENCE OCCASIONAL  
STRESS, AND 25-30 % REPORT  
IT REGULARLY. AROUND A  
QUARTER OF CHILDREN ALSO  
SAY THEY FEEL STRESSED.**

## WHAT IS CHRONIC STRESS?

Stress is a natural, evolutionary response to threatening situations. In order to escape immediate danger, the body releases stress hormones that temporarily boost performance, enabling us to either flee or fight. Although modern life rarely requires such drastic actions, stress remains a significant part of

daily life for many people. Today, stress often stems from high demands and the feeling of not being able to meet them, creating pressure that is experienced as stress.

## CAUSES AND CONSEQUENCES

Stress can arise from various sources, both at work and in our personal lives. Prolonged or chronic stress can have serious health consequences, though. Beyond general discomfort and common sleep disturbances, stress significantly increases the risk of developing mental health conditions such as burnout, depression, and anxiety disorders.

### CONSEQUENCES

- headache
- digestive symptoms
- cardiovascular disease
- anxiety disorders
- sleep disorders
- burnout syndrome
- depression
- conflicts
- drop in performance
- social isolation
- addictions
- general discontent
- increased susceptibility to infections

### THIS IS WHERE STRESS ARISES MOST FREQUENTLY:



PROFESSIONAL LIFE



SCHOOL/  
UNIVERSITY



UNATTAINABLE SELF-  
EXPECTATIONS

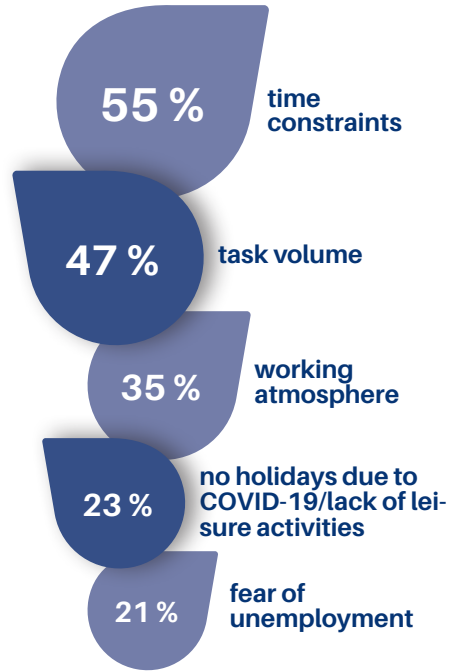


PRIVATE CONFLICTS



## REASONS FOR WORK-RELATED STRESS

At work, stress often arises from deadlines and the expectation of constant availability. Long working hours and demands from bosses or colleagues can further contribute to stress. In school and university, exams and social exclusion are common stress factors. Conflicts with family and friends can also be significant sources of stress. These issues can cause acute stress or become chronic if they persist in daily life. Additionally, setting high demands on oneself can lead to constant pressure. Unfulfilled expectations frequently result in disappointment and self-doubt.



## DIAGNOSTICS

**Cortisol:** Stress triggers the release of cortisol, a crucial stress hormone that helps the body adapt to acute or recurring stressful situations. Its primary function is to activate the metabolism and supply the body with maximum energy. Both acute and chronic stress can be detected through conventional diagnostic methods, such as measuring cortisol levels in saliva. bio-vis offers a diurnal cortisol profile, which involves measuring cortisol in saliva at various times throughout the day.

**Catecholamines:** Catecholamines are messenger substances in the brain, including the neurotransmitters dopamine, noradrenaline, and adrenaline. These substances are released in greater quantities during stressful situations, ensuring a rapid supply of energy.

transmitter known as the 'happiness hormone'. During stressful situations, enzyme activities shift which can lead to a reduction in serotonin formation.

**Mitochondrial function:** Mitochondria are the powerhouses of our cells, supplying the energy needed for cellular functions. When our mitochondria are not functioning properly, energy production decreases which affects the entire body and can lead to symptoms such as exhaustion and fatigue. These symptoms can then negatively impact our ability to cope with stress factors in our daily life.

**Tryptophan metabolism:** The processes in our body are highly complex, making it challenging to pinpoint specific problems. For the purpose of addressing this challenge, metabolome analyses have been developed. These analyses map entire metabolic pathways, including intermediate metabolites and all the enzymes and relevant factors involved. One such pathway is tryptophan metabolism. Tryptophan is a precursor to serotonin, the neuro-

### GET TESTED BY US NOW:

CORTISOL  
DIURNAL  
PROFILE

NEURO-  
TRANSMITTERS  
IN URINE

MITOCHON-  
DRIAL  
FUNCTION

TRYPTOPHAN  
METABOLISM

STRESS - A  
CONSTANT PART OF  
YOUR DAILY LIFE?

## CHRONIC STRESS IS OFTEN ACCOMPANIED BY IRRITABLE BOWEL SYNDROME

Irritable bowel syndrome can disrupt the microbiome, triggering inflammatory processes that impair the absorption of nutrients from our food. This disruption also affects tryptophan, the precursor to serotonin. Reduced absorption means less tryptophan is available for serotonin production, potentially leading to serotonin deficiency. If you have symptoms such as diarrhoea, constipation, or bloating, it may be useful to be examined for irritable bowel syndrome. In addition to all individual parameters, biovis offers various irritable bowel syndrome profiles. These profiles include all parameters relevant for irritable bowel syndrome and some additional parameters. For more details, please refer to our irritable bowel syndrome flyer or consult your healthcare professional.

### GET TESTED AT BIOVIS NOW:

MICROBIOME  
CHANGES

DIGESTIVE  
RESIDUES

MALDIGESTION

MALAB-  
SORPTION

DO YOU SUFFER  
FROM DIARRHOEA,  
CONSTIPATION  
OR BLOWING?

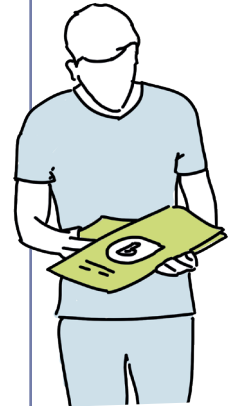


YOU CAN  
FIND FURTHER  
INFORMATION  
ON OUR  
HOMEPAGE.

### BIOVIS OFFERS YOU



To get to the root of the issues caused by chronic stress, biovis offers not only analyses of various individual parameters but also comprehensive profiles that include all the key parameters. Our **'Complete Profile'** delivers crucial insights necessary for identifying root causes. For our **'Basic'** and **'Midi' profiles**, any missing parameters are supplemented using empirical data. For further information, please contact the medical specialist you trust. They will advise you and request the desired profiles from biovis for you.







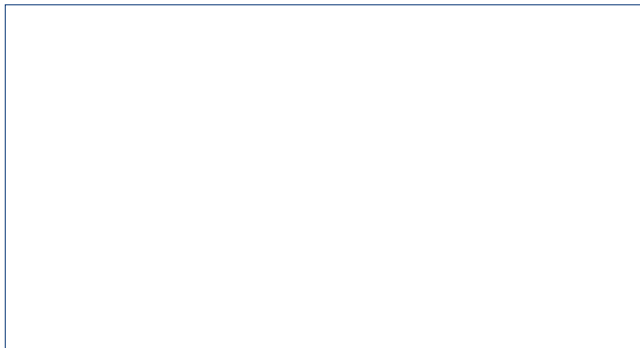
If you have any further  
questions, please  
contact the medical  
professionals  
you trust.



**biovis'**  
DIAGNOSTICS

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Presented by



Practice stamp

Further information  
can be found here:



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