

Common cause of sleep disorders: exposure to blue light at night

Blue spectrum light plays an important role in our circadian rhythm. The so-called „internal clock“ is regulated by the absorption of blue light in the melanopsin receptors of the eyes. The blue light in daylight inhibits the release of the body’s sleep hormone melatonin, helping us stay awake and active. In the evening, how-ever, our eyes need to avoid exposure to blue light to increase melatonin production, which helps us fall asleep.

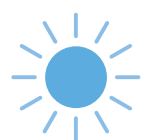
Modern display devices, LED and flourescent light bulbs emit a high spectrum blue light. Due to the excessive use of display technologies until late in the evening, many people are intensively exposed to the blue light until just before going to bed. This disturbs the natural sleep-wake rhythm. In the long term, this leads to sleep deficits that cause illness.

ActTrust detects blue light and thus provides valuable information about the client’s usage habits. Often a change in this behaviour can improve sleep.



Natural blue light in the morning calibrates the internal “circadian” clock, thereby making it easier to fall asleep at night.

In the evenings our eyes need to avoid blue light to give our bodies the signal it is night time and therefore the time to wind down and sleep.



6 a.m.

noon

6 p.m.



midnight



“I like to use the ActTrust for my clients because it provides relevant insights into their sleeping and waking behaviour. It helps the clients to better recognize connections between their behavior and sleep problems and motivates them to improve their sleep-related behavior. Furthermore, I can analyse the sleep profile with ActTrust. This can be compared at the beginning and end of a treatment. Changes in sleep behavior become visible to both of us.”

Dr. Linda Wulf
Psychotherapist



“ActTrust is a great assessment and treatment tool, that provides accurate information about my clients’ sleeping and waking patterns. Healthy sleep plays an important role in wellbeing, so I need to incorporate this component when designing treatment plans. This treatment tool provides a visual and instantaneous insight into any changes related to my clients’ sleep behaviours. It enables me to develop and analyse an accurate sleep profile, and compare client sleep activity from the beginning to the end of treatment. ActTrust helps me to create awareness about the importance of sleep hygiene and motivates my clients to improve their night routine. It assists people to recognise the connections between their actions and resulting sleep issues.”

Claudia Caballero, Psychotherapist
BPsy (Hons), PostGradDipPsych

Education

neurocare academy offers workshops for the practical integration of actigraphy and sleep analysis into therapy. The courses are aimed at psychologists and therapists who treat clients with sleep problems or presume a correlation between symptoms and sleep behaviour.

more on: www.neurocaregroup.com

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ActTrust Actigraphy and sleep profile analysis in therapy





Good sleep hygiene Essential for performance and health

An adult should sleep seven to eight hours a day – children and adolescents even longer, depending on their age. With less than six hours of sleep, attention and concentration decrease significantly although this may go unnoticed. Objective measurements show: persistent low sleep deprivation accumulates negative symptoms over time. Two weeks with six hours of sleep per night, for example, reduce cognitive performance in the same way as two nights without sleep. In addition, sleep deprivation affects health and reduces immunological and metabolic stability.

Sleep disorders often present as a co-morbidity in a range of psychiatric disorders. Studies show that in some cases there is a causal relationship with poor sleep hygiene. Sleep disorders can therefore increase the risk of prolonged mental and physical illness in a patient.

Common bedfellows: Depression and sleep disorders

Chronic sleep disorders are a primary symptom of depression. 80% of people with depression suffer from poor sleep. Insomnia and a dysfunctional sleep behaviour can also trigger and intensify depressive episodes. Treatment of the sleep disorder can help to alleviate or prevent depressive episodes.

Sleep disorders may cause symptoms that resemble ADHD

Persistent sleep deprivation in children increases the likelihood that they will develop symptoms such as behavioural problems, attention deficit disorders and hyperactivity. ADHD is then often assumed to be present in children who are actually healthy. If sleep is improved, the symptoms can therefore be improved.

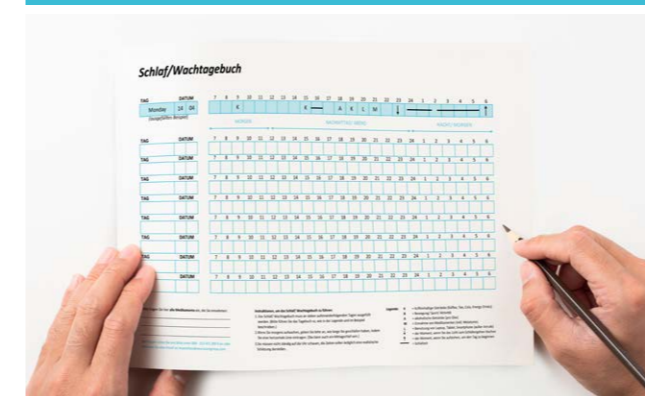
Taking a close look at your client's sleep can be revealing. By eliminating sleep disorders, the outcome of other therapies can improve significantly. But how do you get a comprehensive picture of your client's sleep?

Objective sleep assessment



The client wears a medical actigraph for data acquisition over several days and nights.

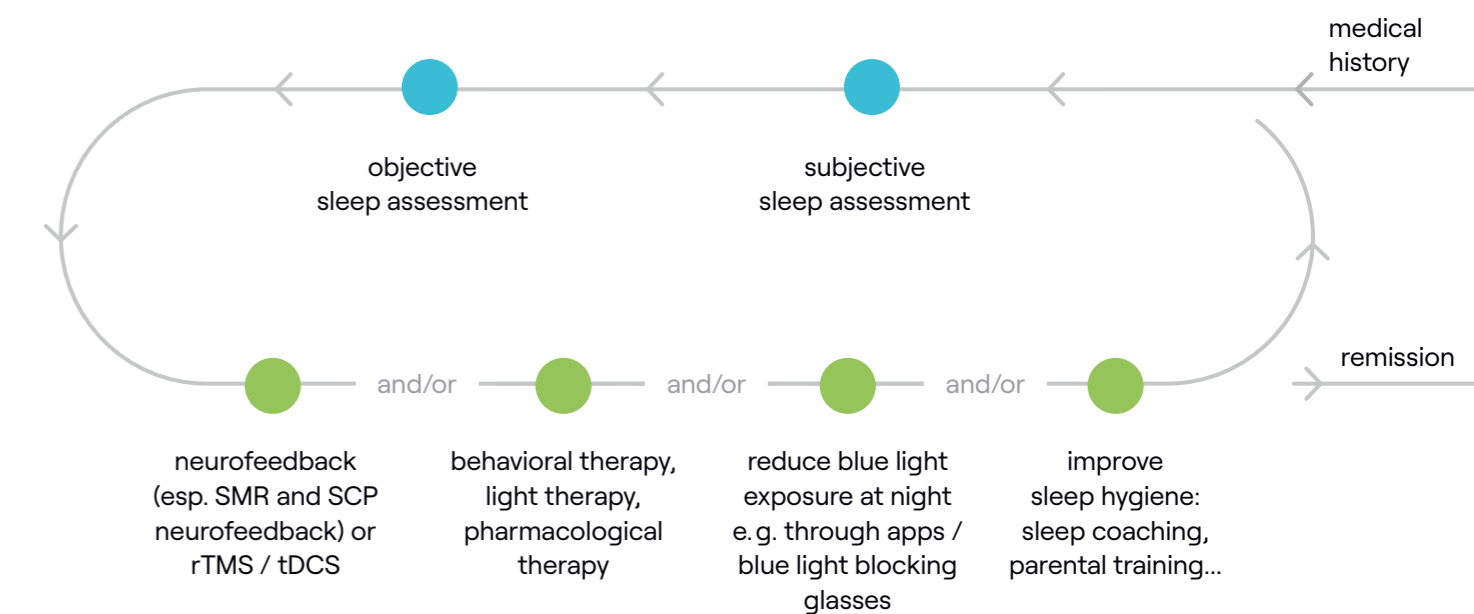
Subjective sleep assessment



The client observes and writes down his or her own activity and sleep patterns.

Detailed analysis of measured values
Assessing sleep quality
Deriving and initiating therapies

Help your clients improve their sleep hygiene



CONDOR
INSTRUMENTS

Aktigraphie with ActTrust

ActTrust actigraphs were developed especially for use in medicine and research. They are worn continuously on the wrist for several days. They precisely record important parameters of activity and sleep as well as certain environmental factors. The measured data are used to investigate sleep behaviour/activity and chronobiology.



- activity and sleep phases (e. g.: activity/rest during the day, total time in bed, sleep time/-duration, sleep onset latency, sleep efficiency, nightly wake phases)
- light intensity and desintegration of light spectra (red / green / blue light, infrared light)
- ambient and skin temperature

- rechargeable, long-lasting battery life (up to 3 months)
- robust casing, water-resistant
- available in different makes
- service and support in Germany

neurocare is the exclusive distributor for ActTrust actigraphs in Europe.

more on: www.neurocaregroup.com/acttrust-actigraphy