

# Insomnia/PGS/diagnosis

## Symptoms

Difficulty falling asleep, interrupted sleep, early awakening, unrefreshing sleep, daytime problems - fatigue to sleepiness, concentration and memory disorders, increased tension, irritability, risk of injury, changes to mood disorders, reduced motivation, somatic problems (headaches, digestive problems).

## Diagnosis

Based on the medical history, polysomnography is exceptionally necessary to rule out an organic sleep disorder.

### Basic etiological units of insomnia and basic symptoms:

1. **Transient** (acute) - lasting up to 4 weeks, stress-induced, e.g. acute somatic illness, workload, family problems, etc.
2. **Chronic** (psychophysiological, learned, fixed) - anxiety about the impossibility of sleeping before lying down, fear of not sleeping, fear of this disease and its consequences.
3. **Paradoxical** - sleep perception disorder; the patient thinks that he does not sleep at all or that he sleeps very little, while this does not correspond to reality.
4. **Circadian rhythm disorder** - jet lag syndrome, shift work, delayed and advanced phase syndrome, and others.
5. **Organic insomnia** (caused by another disease) – restless legs syndrome, periodic limb movements during sleep, sleep apnea, neurometabolic diseases, structural malformations of the CNS.
6. **Secondary insomnia in psychiatric diseases** (anxiety-depressive syndrome, psychoses, personality disorders, etc.).
7. Other causes - inappropriate sleep hygiene, and side effects of medicines, drugs, or alcohol.

## Therapy

1. **Psychotherapeutic intervention** - explanation of the origin of the disorder and calming of the patient, instruction on sleep hygiene, cognitive behavioral therapy, possibly individual or group psychotherapy, and relaxation techniques.
2. **Medicinal**
  - transient insomnia – hypnotics of the III. generation (zolpidem, zopiclone) and removal of the provoking cause.
  - chronic insomnia – antidepressants with a positive effect on sleep, e.g. trazodone, mirtazapine, hypnotics of the III. generation as the ultimum refugium.

Circadian rhythm disorders can also be the cause of insomnia (but also daytime sleepiness).

## Circadian rhythm disorders

In these disorders, the preferred time of going to bed and waking up deviates from the usual social norm by more than 2 hours.

### Main symptoms

Insomnia at the time of usual falling asleep or early awakening, difficult awakening with signs of sleep intoxication. Drowsiness, fatigue, irritability, concentration or memory disorders, accident proneness during the day.

### Division of circadian rhythm disorders:

1. Delayed sleep phase - delayed time of going to sleep and falling asleep, morning sleepiness, and difficulty getting up, occurrence is frequent, especially in adolescence.
2. Advanced stage of sleep - early going to bed, early awakening, especially in older age.
3. The irregular rhythm of sleep and wakefulness - neurodegenerative diseases, organic diseases of the CNS in early infancy.
4. Free-running rhythm – failure of synchronization with the external environment. The cause may be a malfunction of the suprachiasmatic nucleus (organic damage to this part of the CNS, a defect in the genes determining the duration of the circadian period) or a malfunction of the retinohypothalamic pathway (blindness).
5. Jet lag syndrome - a temporary failure of synchronization with the light rhythm when crossing more than 2 time zones, the duration and tolerance of the condition is significantly individual.
6. Shiftwork
7. Secondary etiology - other neurological diseases, drugs, medicines, alcohol.

## Diagnostics

Anamnesis, sleep diary, objectification using 10-day actigraphy.

## **Therapy**

A regular schedule of sleep and wakefulness, phase shift at a specialized workplace (chronotherapy) in an isolated environment, phototherapy (intense illumination with artificial light in the morning for the delayed phase, in the evening for the advanced phase). If melatonin is available, its administration at the time of desired falling asleep, in the case of a delayed phase of sleep in adolescence, vitamin B12 intramuscularly.

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