UNDERSTANDING THE IMPACT OF INSOMNIA DISORDER

Insomnia disorder is characterized by difficulty falling asleep, staying asleep, or both, despite an adequate opportunity to sleep.1

Diagnostic criteria for insomnia disorder include2:

- **Symptoms**
  - Difficulty falling asleep or staying asleep or waking too early in the morning that leads to dissatisfaction with sleep quantity or quality
  - Stimulant use or other medical condition

- **Impairment**
  - Sleep disturbance that leads to impairment in social, work, educational, behavioral, or other areas of functioning, or that may cause significant distress

- **Chronicity**
  - Experiencing sleep difficulty while having adequate opportunity to sleep, at least 3 nights per week for at least 3 months

Although Many Adults Experience Insomnia Symptoms, Only a Small Percentage Meet Diagnostic Criteria for Insomnia Disorder

Prevalence of Insomnia Symptoms and Diagnosis in the Adult Population²

- **33%**
  - Experience associated daytime impairments
  - Meet diagnostic criteria for insomnia disorder

- **10%-15%**
  - Experience insomnia symptoms

- **6%-10%**

Insomnia Is Associated With Several Risk Factors and an Increased Risk for Certain Comorbidities

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Comorbidities</th>
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<tr>
<td>Advancing age²</td>
<td>Mood disorders⁵</td>
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<td>Female³</td>
<td>Type 2 diabetes⁶</td>
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<tr>
<td>Medical comorbidities</td>
<td>Behavioral and cognitive impairment¹⁰</td>
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<td>such as chronic pain,</td>
<td>Cardiovascular disease⁷,⁸</td>
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<td>restless legs syndrome,</td>
<td>Breast cancer⁸</td>
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<td>GERD, respiratory issues⁴</td>
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<tr>
<td>Poor sleep hygiene practices</td>
<td>Psychiatric disorders such as anxiety and depression¹,³</td>
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<td>(eg, excessive caffeine use,</td>
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<td>irregular sleep schedules)²</td>
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INSOMNIA CAN NEGATIVELY IMPACT NEXT-DAY FUNCTION

Inadequate sleep from insomnia can have next-day consequences¹²:

- Fatigue
- Impaired Cognitive Function and Memory
- Daytime Sleepiness

Insomnia Symptoms Have Been Associated With an Increased Risk of Motor Vehicle Accidents and Falls¹³,¹⁴

A retrospective cohort study compared incidence rates of motor vehicle accident (MVA)-related injuries between service members with diagnosed insomnia and an unexposed cohort (N=172,062) (January 1, 2007–December 31, 2016).* MVA-related injury during the 365-day follow-up period was defined as an outpatient or inpatient encounter that included any of the MVA-related ICD-9 or ICD-10 external cause of injury codes, or NATO Standardization Agreement (STANAG 2000) hospitalization cause of injury and trauma codes.

An incident case of insomnia was defined by records of two outpatient medical encounters within 90 days of each other or one hospitalization with a diagnosis of insomnia in any diagnostic position, in a non-deployed healthcare setting using ICD-9 or ICD-10 codes.

Adjusted for covariates.

Motor Vehicle Accident (MVA)-Related Injuries in Active Component Service Members Between 2007–2016* (n=5,587)

- Insomnia Diagnosis
- No Insomnia Diagnosis

Between 2007-2016,* service members with insomnia had more than double the rate of motor vehicle accident-related injuries, compared to members without insomnia (aRR: 2.08; 95% CI: 1.95-2.22)²

Falls Positive Relationship of the Extent of Insomnia Symptoms and Risk of Falling

A composite score (0-4) for the number of insomnia symptoms was created. A higher score reflected a greater burden of insomnia symptoms.

Data from the Health and Retirement Study (HRS) patients were asked about their extent of insomnia symptoms (n=6,882) (2008–2014).
For patients already being treated for insomnia, the next-day impact may be due to the residual effects of their insomnia medications. These effects can manifest as:

- Headache
- Grogginess
- Difficulty Remembering
- Difficulty Concentrating

Approximately 80% of US adults taking medications for insomnia report experiencing negative next-day effects related to medication use.15

Common Adverse Events Among Currently Available Insomnia Medications16

- Abnormal behavior
- Depression
- Dizziness
- Drowsiness
- Headache
- Memory impairment
- Nausea
- Physical dependence
- Sedation
- Vomiting

*Not an exhaustive list.

The FDA, AGS, and AASM have issued safety warnings, guidance, and recommendations related to insomnia medications.

Food and Drug Administration (FDA)17
The FDA requires a new boxed warning regarding rare but serious injuries and deaths resulting from various complex sleep behaviors that have occurred with certain prescription insomnia medications.

American Geriatrics Society (AGS) Beers Criteria8-18
The use of certain classes of drugs for the treatment of insomnia are to be avoided in older adults due to increased risk of side effects.

American Academy of Sleep Medicine (AASM)19
The AASM guidelines do not recommend some medications for insomnia treatment due to the harms outweighing the benefits.

Unmet needs persist for patients with insomnia disorder.

For more information and resources on insomnia, visit dayafterinsomnia.com