

**PubMed**

[US National Library of Medicine](#)  
[National Institutes of Health](#)

Search term Search database  [Advanced Help](#)

Result Filters [Display Settings](#): [Abstract](#)

[Send to:](#)



[Psychosom Med](#). 2001 Jan-Feb;63(1):40-8.

**A randomized, double-blind, placebo-controlled crossover study of the effect of exogenous melatonin on delayed sleep phase syndrome.**

[Kayumov L](#), [Brown G](#), [Jindal R](#), [Buttoo K](#), [Shapiro CM](#).

**Source**

Department of Psychiatry, University of Toronto, and University Health Network, Toronto Western Hospital, Ontario, Canada. [lkayumov@playfair.utoronto.ca](mailto:lkayumov@playfair.utoronto.ca)

**Abstract**

**OBJECTIVE:** The effects of exogenous melatonin on sleep, daytime sleepiness, fatigue, and alertness were investigated in 22 patients with delayed sleep phase syndrome whose nocturnal sleep was restricted to the interval from 24:00 to 08:00 hours. This study was a randomized, double-blind, placebo-controlled crossover trial. Subjects received either placebo or melatonin (5 mg) daily for 4 weeks, underwent a 1-week washout period, and then were given the other treatment for an additional 4 weeks. Patients could take the melatonin between 19:00 and 21:00 hours, which allowed them to select the time they felt to be most beneficial for the phase-setting effects of the medication.

**METHODS:** Two consecutive overnight polysomnographic recordings were performed on three occasions: at baseline (before treatment), after 4 weeks of melatonin treatment, and after 4 weeks of placebo treatment.

**RESULTS:** In the 20 patients who completed the study, sleep onset latency was significantly reduced while subjects were taking melatonin as compared with both placebo and baseline. There was no evidence that melatonin altered total sleep time (as compared with baseline total sleep time), but there was a significant decrease in total sleep time while patients were taking placebo. Melatonin did not result in altered scores on subjective measures of sleepiness, fatigue, and alertness, which were administered at different times of the day. After an imposed conventional sleep period (from 24:00 to 08:00), subjects taking melatonin reported being less sleepy and fatigued than they did while taking placebo.

**CONCLUSIONS:** Melatonin ameliorated some symptoms of delayed sleep phase syndrome, as confirmed by both objective and subjective measures. No adverse effects of melatonin were noted during the 4-week treatment period.

PMID: 11211063 [PubMed - indexed for MEDLINE] [Free full text](#)

## [Publication Types, MeSH Terms, Substances](#)

### [LinkOut - more resources](#)

#### Save items

[View more options](#)

#### Related citations in PubMed

[A randomized, placebo-controlled trial of controlled release melatonin treatment of delayed sleep phase syndrome and impaired sleep maintenance in children with neurodevelopmental disabilities.](#) [J Pineal Res. 2008]

[The efficacy and safety of the melatonin agonist beta-methyl-6-chloromelatonin in primary insomnia: a randomized, placebo-controlled, crossover clinical trial.](#) [J Clin Psychiatry. 2005]

[Efficacy of prolonged release melatonin in insomnia patients aged 55-80 years: quality of sleep and next-day alertness outcomes.](#) [Curr Med Res Opin. 2007]

**Review** [The role of melatonin and circadian phase in age-related sleep-maintenance insomnia: assessment in a clinical trial of melatonin replacement.](#) [Sleep. 1998]

**Review** [\[Melatonin--a natural hypnotic?\].](#) [Wien Klin Wochenschr. 1997]

[See reviews...](#)

[See all...](#)

#### Cited by 5 PubMed Central articles

[Therapeutics for Circadian Rhythm Sleep Disorders.](#) [Sleep Med Clin. 2010]

**Review** [The use of exogenous melatonin in delayed sleep phase disorder: a meta-analysis.](#) [Sleep. 2010]

**Review** [Circadian rhythm sleep disorders: part II, advanced sleep phase disorder, delayed sleep phase disorder, free-running disorder, and irregular sleep-wake rhythm. An American Academy of Sleep Medicine review.](#) [Sleep. 2007]

[See all...](#)

#### Related information

[Related Citations](#)

[Compound \(MeSH Keyword\)](#)

[Substance \(MeSH Keyword\)](#)

[Cited in PMC](#)

[Cited in Books](#)

#### Recent activity

[A randomized, double-blind, placebo-controlled crossover study of the effect of ...](#) PubMed

[A single dose of melatonin prevents the phase delay associated with a delayed we...](#) PubMed

[See more...](#)