Melatonin

Important Things to Know About Melatonin

- Melatonin is a hormone that is made by the pineal gland in the brain.
- You can also take it in pills.
- It is linked with how our body gets ready for sleep.
- Some people say it has other benefits, but there is no proof for this.
- You can take it to help with some types of insomnia or to get over jet lag.
- You should talk with a doctor to work out when and how much to take.

What is melatonin?

Melatonin is a hormone that is produced by the pineal gland in the brain. Melatonin levels vary in 24 hour cycles and are controlled by our body clock. Normally its production is reduced by being in bright light. Levels increase at night. This is why it is often called 'the hormone of darkness'. But in fact the word melatonin itself means 'skin whitening'. This is due to how it affects skin in some animals. But it does not change the skin colour of humans. Some plants have small amounts of melatonin as well. These include plants we use as food.

Where is it found?

Once it gets into the blood melatonin goes to all parts of the body.

What does it do?

Melatonin appears to be important in helping regulate the internal body clock's cycle of sleep and wakefulness. Other claims are made for it: it has anti-oxidant and free radical scavenging properties and some say it has anti-cancer and anti-ageing effects, but there is no proof for this in humans.

In regards to sleep, your blood melatonin level starts to go up about 2 hours before you go to sleep. It helps establish the conditions for sleep and your core body temperature to go down slightly at this time.

What can you use it for?

Melatonin is used to treat insomnia. But there are two ways that you can use it. The first is as a sedative, to make you feel sleepy. This is the most common use. The second is to help reset your internal body clock to a different time in conditions where it is out of synchrony with time of day, such as with jet lag or advanced or delayed sleep phase syndrome. In these cases melatonin therapy at night is often combined with Bright Light Therapy, applied in the morning (usually using outdoor light) in the case of jet lag or delayed sleep phase syndrome or in the evening (using special lights) in the case of advanced sleep phase syndrome (see also Delayed Sleep Phase Syndrome). Recently a synthetic form of melatonin has also been developed to treat depression.

How much should you take?

Daily doses of 0.5mg to 5 mg appear similarly effective, although sleep onset may be quicker at the higher dose. There does not appear to be any advantage in taking more than this. The most commonly available preparation in Australia contains 2 mg. It is in a slow

release form to last throughout the night, much like the naturally-occurring melatonin. However the slow release formulation does not allow a short high peak level which some argue helps with sleep onset. All melatonin tablets need a doctor's prescription in Australia (but not in North America).

When should you take it?

If you take melatonin to go to sleep, the best time (for the slow release type particularly) is about an hour before you go to bed. However, some people feel a "wave" of sleepiness some 20 minutes after taking it and make the most of this by being in bed ready to sleep at this time. You may have to experiment a bit with when you take it. Discuss this with your prescribing doctor.

You can also take it to adjust the body clock, for example when you are crossing time zones to minimise jet lag. You should take it close to target bedtime at your destination. The benefits are greater where more time zones are crossed and for eastward flights more than westward flights. (see Tips to Combat Jet Lag).

Can it cause problems?

Melatonin can cause sleepiness and so should not be taken before driving or operating machinery.

Melatonin's main benefit is in reinforcing external cues for sleep or as a tool to help shift sleep-wake rhythms. Long term use of melatonin is only appropriate if prescribed because of a significant underlying sleep disorder.

Side effects are uncommon. These and its compatibility with your other medicines should be discussed with your prescribing doctor.

Should children take melatonin?

See Melatonin and Children's Sleep.

Where can I find out more?

http://www.mayoclinic.com/health/melatonin/NS_patient-melatonin/DSECTION=evidence

This information is produced by:

Sleep Health Foundation
ABN 91 138 737 854
www.sleephealthfoundation.org.au
A national organisation devoted to education, advocacy and supporting research into sleep and its disorders

Sleep Disorders Australia
ABN 98 075 427 459
www.sleepoz.org.au
A voluntary group offering assistance and support to people and their families living with sleep disorders

Australasian Sleep Association
ABN 32 172 170 561
www.sleep.org.au
The peak national association of clinicians and scientists devoted to investigation of sleep and its disorders