

From Linda Lomberg 15 November 2014

Vaughan, this is the third email I have sent you today. Just want to answer the question about Melatonin.

I think Melatonin is very good for everybody over the age of 50, regardless of whether you have sleep issues. As we age our pineal gland is the first to show signs of calcification, so it does not produce the optimum amount of melatonin anymore. Melatonin does much more than just help with sleep, it is one of the important anti-oxidants, and really what we need as we age.

Unfortunately in NZ, we can only get Melatonin on prescription. Ask Mike Watson to prescribe it, here in Auckland most pharmacies can fill the script, it should be the same in Hamilton. A dosage of 3mg taken half an hour before bedtime should suit you well.

Linda

#### **Dr Al Sears wrote**

At my Centre for Health and Wellness, we now recommend patients take 10 mg of melatonin daily to kick-start telomerase expression. It's a much larger dosage than you'll hear most doctors recommend, because they haven't heard of its effect on your telomeres.

One tricky thing about melatonin is the form it comes in. It's not as effective in a pill because it'll take longer to enter your bloodstream, and pills that are not well made get destroyed in your gut, and you never get the full effect. Look for melatonin liquids, sprays or anti-aging creams. They're fast-acting and affordable.

#### **Dr Mercola recommends Melatonin to help sleep.**

Melatonin has been identified in many plants including [Feverfew](#) (*Tanacetum parthenium*), and [St John's wort](#) (*Hypericum perforatum*).[3] The physiological roles of melatonin in plants involve regulation of their response to [photoperiod](#), defense against harsh environments, and the function of an antioxidant. The latter may be the original function of melatonin in organisms with the others being added during evolution.[9] Melatonin also regulates plant growth by its ability to slow root formation, while promoting above ground growth.[10]

Melatonin has been reported in foodstuffs including [cherries](#) to about 0.17-13.46 ng/g,[11] bananas and grapes, rice and cereals, herbs, olive oil, [wine](#)[12] and beer.

When bird chicks ingest melatonin-rich plant feed, such as rice, the melatonin binds to melatonin receptors in their brains.[13] No food has been found to elevate plasma melatonin levels in humans.[14]

melatonin is produced by the [pineal gland](#), a small endocrine gland[25] located in the center of the brain but outside the blood-brain barrier. The melatonin signal forms part of the system that regulates the [sleep-wake cycle](#) by chemically causing drowsiness and lowering the body temperature, but it is the [central nervous system](#) (specifically the suprachiasmatic nuclei, or [SCN](#))[25] that controls the daily cycle in most components of the [paracrine](#) and [endocrine](#) systems[26][27] rather than the melatonin signal (as was once postulated).

Infants' melatonin levels become regular in about the third month after birth, with the highest levels measured between midnight and 08:00 (8 AM).[28]

In humans, 90% of melatonin is cleared in a single passage through the [liver](#), a small amount is excreted in [urine](#),[29] and a small amount is found in [saliva](#).

Human melatonin production decreases as a person ages.[30] It is believed that as children become teenagers, the nightly schedule of melatonin release is delayed, leading to later sleeping and waking times.[31]

Production of melatonin by the pineal gland is inhibited by [light](#) to the [retina](#) and permitted by [darkness](#). Its onset each evening is called the dim-light melatonin onset (DLMO).

It is principally blue light, around 460 to 480 [nm](#), that suppresses melatonin,[32] proportional to the light intensity and length of exposure. Until recent history, humans in temperate climates were exposed to few hours of (blue) daylight in the winter; their fires gave predominantly yellow light.

The [incandescent light bulb](#) widely used in the twentieth century produced relatively little blue light[33]. Wearing glasses that block blue light in the hours before bedtime may decrease melatonin loss. Kayumov et al. showed that light containing only wavelengths greater than 530 nm does not suppress melatonin in bright-light conditions.[34] Use of blue-blocking goggles the last hours before bedtime has also been advised for people who need to adjust to an earlier bedtime, as melatonin promotes sleepiness.[35]

It is natural to get darker gradually so if difficult going to sleep, wear dark glasses for a while.