76

Did you ever wonder why it is that most people are "programmed" to sleep at night instead of during the day?

你有没有琢磨过为什么大多数人都是“程序化的”晚上睡觉而不是白天？

If there's something about the cycle of light and dark that's telling us when to sleep, then shouldn't the sleep cycle of a blind person be different?

如果有某种关于光暗循环的（东东）告诉我们什么时候该睡觉，那么盲人的睡眠周期是否应该不一样呢？

As it turns out, many blind people—people with no visual perception of light at all—do have the same sleep cycle as sighted people.

事实证明，许多盲人——没有任何光的视觉感知的人——同视力正常的人有着同样的睡眠周期。

So now you're wondering, "How can this happen?"

所以你现在得寻思，“怎么能发生呢？”

The answer is: hormones, one hormone in particular. It's called melatonin.

答案是：荷尔蒙，特别是一种荷尔蒙。它叫做褪黑激素。

In sighted people, the level of melatonin goes up at night, or when it's dark, and goes down in the day, or when it's light.

在视力正常的人中，褪黑激素的水平在夜里或黑暗时上升，在白天或光线中下降。

It's believed that it's the presence of this hormone in the blood that gives us the urge to sleep.

人们相信是这种荷尔蒙在血液中的存在给了我们睡觉的迫切要求。

If an increase in melatonin level "programs" sighted people to sleep at night, then what about blind people?

如果褪黑激素水平的增加“程序化”了视觉正常的人在夜里睡觉，那么对于盲人怎么样呢？

A researcher, named Dr. Charles Czeisler, tells about an interesting experiment.

一个研究者，名叫Charles Czeisler博士，讲述了一个有趣的实验。

He tried shining a bright light into the eyes of some blind people.

他尝试把一束强光射入某些盲人的眼中。

When he did this, he noticed that the level of the melatonin in the blood of these subjects went down just as it would do for sighted people.

当他这么做时，它注意到在这些实验对象的血液中的褪黑激素的水平下降了，正如对视力正常的人如此做一样。

Somehow, the eyes of these subjects, even though they were damaged and had no visual perception of light, could tell their brain when there was more or less light.

不知何故，这些实验对象的眼睛，即使它们被损坏了，并且没有对光线的视觉感知，也能告诉他们的大脑什么时候有多或者少的光线。

Now, this doesn't work for all blind people;

哦，这并不适用于所有盲人。

in fact, most of Czeisler's subjects had no hormonal response to light at all.

事实上，大多数Czeisler的实验对象对光线根本没有荷尔蒙的反应。

Further research may be able to explain this sensitivity to light in terms of the type of blindness of the subject.

进一步的研究也许能依据实验对象的失明的类型来解释这种感光灵敏度。