

Dark Therapy

Mood disorders are caused in part by a breakdown of the body's internal clock. There are ways to fix a broken biological clock, and these fixes can work as well as medication. In fact, many of the hormones that run the biological clock are also marketed as medicines: cortisol, epinephrine, and melatonin.

For example, regular wake times can double the effect of antidepressants. When it comes to mania, mixed states and rapid cycling, total darkness at night leads to significant improvement. We have known this since the 1970s, but it's difficult to do. In 2016 a new approach to this *dark therapy* was developed called virtual darkness.

A Famous Case

Mr. J went in and out of mania and depression for many years. His condition was so untreatable that he went to the National Institutes of Health for help in the 1990s. They treated him with a routine of total darkness for 14 hours every night (from 6 P.M. to 8 A.M.). With this *dark therapy*, he improved so rapidly that they lowered the enforced darkness from 14 hours to 10 hours each night (10 P.M. to 8 A.M.). Amazingly, his mood improved even though his sleep didn't change much.

Dark Therapy the Easy Way

Traditional dark therapy requires total darkness. Even a distant street lamp, or a brief flick-on of the bathroom lights, can reverse its effects. An easier approach is to use amber glasses at night. These block blue spectrum light, which is what causes mania, insomnia, and other health problems.

There's a special receptor in the eye that detects blue light (called melanopsin), and the brain uses that signal to set the biological clock. Blue light is helpful in the morning, but too much of it at night is bad for the brain.



In a landmark study in 2016, people who wore these glasses from 6pm to 8am (except when in bed in the dark) had a significant improvement in mania – the effect was actually 3 times what we normally see with medications. Amazingly, the improvement happened even if the patients did not sleep. It's as if the glasses allowed the brain to get the benefits of sleep without actually sleeping.

The two models below were recommended by *Consumer Reports* and used in medical research:



[Uvex Ultraspec](#)



[Uvex Skyper](#)

- Uvex Ultraspec 2000, model S0360X (\$7 at Amazon). This one fits over regular glasses.
- Uvex Skyper, model 3S1933X (\$7-11 at Amazon).

It's best, but not necessary, to keep the lights down low while wearing these. Don't drive with them on. You'll still need a way to create total darkness while asleep though because light passes through your eyelids. Try black-out curtains, a windowless room, or a sleep mask.

If your symptoms are severe, start with a full 14 hours (6 P.M. to 8 A.M.) of total darkness, and transition to 10 hours (10 P.M. to 8 A.M.) as you start to recover. When transitioning, adjust by 1 hour every two nights (e.g. darkness at 7 P.M. for two nights, then 8 P.M. for two nights, until you reach 10 P.M.). If

lowering the time spent in darkness makes your symptoms worse, just back-track and increase your dark-exposure by an hour. For milder symptoms, you can start with 10 hours of darkness or simply put them on 2 hours before bedtime.

Do not use *dark therapy* during the day. Remember the idea is to set your clock, and daytime light helps with that.

Other Health Benefits

Evening light has been also been linked to obesity, cancer, diabetes, and heart and eye disease.

Other Health Benefits

If you need a nightlight on to sleep, a low blue-light model from www.lowbluelights.com would be better than a full spectrum bulb. There are also apps for computers and electronic devices that can reduce blue light. These are good for health but won't replicate dark therapy. Read more at: www.moodtreatmentcenter.com/bluelight.pdf

Side effects

Blue light glasses can cause vivid dreams and headaches. They can improve depression if worn 2 hours before bedtime, but rarely can cause depression if put on too early. This is not a problem in dark therapy though because the directions are to put them on later in the evening as manic symptoms improve.

—Chris Aiken, M.D., updated 5/10/2017

Reference: Henriksen TE et al. Blue-blocking glasses as additive treatment for mania: a randomized placebo-controlled trial. *Bipolar Disord.* 2016 May;18(3):221-32.

Conditions with Broken Clocks

Mania and Hypomania. Here everything is turned up. Energy is heightened, thoughts are faster, temper flares, and other emotions change so quickly that you may seem unpredictable to others. These states can feel good, but often have an uncomfortable anxiety that feels physical, like a restless impatience. Mania and hypomania have the same symptoms. Mania is the more severe version, and often involves more impulsivity.

Mixed States. When the hyper symptoms of mania overlap with the lows of depression it's called a mixed state. It's like being pulled in opposite directions – "Tired and wired, driven to do something but I don't know what to do." Anxiety, irritability, irregular energy and sleep, and lots of physical symptoms – these are hallmarks of mixed states.

Rapid Cycling. When this happens, people go in and out of a mood episode at least 4 times a year. Each episode usually lasts 2-4 weeks. It may mean 4 depressions a year, or depressions that cycle with mania. If the cycling is faster, such as monthly, it's called *ultra-rapid cycling*.

Seasonal Depression. These episodes usually start in Fall or Winter. Morning light, which you can get from a lightbox, is more critical in treating this than dark therapy.

Sleep phase delay. This just means you're a night owl. It's common in adolescence – teenagers have particular trouble falling asleep before 11pm. If this is interfering with your life, dark therapy can help. You may need to force yourself to wake up early and avoid naps during the day as well.

Circadian disorders. These include jet-lag and shift work syndrome. They often feel like depression, and they benefit from dark and light therapy just as mood disorders do. In shift work, you need to create artificial cues for morning and evening since the sun won't guide you. Dark therapy during your night dawn simulators or light-boxes during your morning can help. For jet lag, there is a guide at: www.moodtreatmentcenter.com/jetlag.pdf