

9

Bright Light Therapy

Late Timed Body Clock – Delayed Circadian Rhythm

If you think you may have a late timed body clock, that is, you are unable to fall asleep earlier than midnight and you have difficulty getting up in the morning, there are some further strategies in addition to Good Sleep Practices (Chapter 10) and Stimulus Control Therapy.

Morning bright light therapy

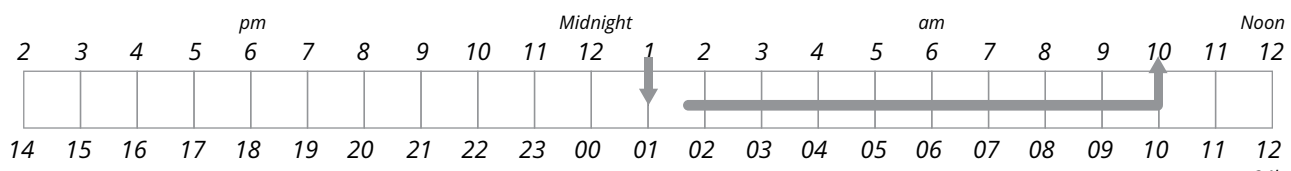
It is possible to adjust your body clock to an earlier schedule through repeated exposure to bright light appropriately timed in the morning. But to determine the most appropriate timing of morning light, follow the next steps.

Step 1

You will need to choose a week when you can be flexible about when you start the day (e.g. on holidays, long weekend).

Step 2

Determine what time you would wake spontaneously, that is, without an alarm. This is not the time you have to wake for work, but the time you 'naturally' wake up. Note this time as a starting point. In the example below, the person's natural wake up time is 10 a.m.

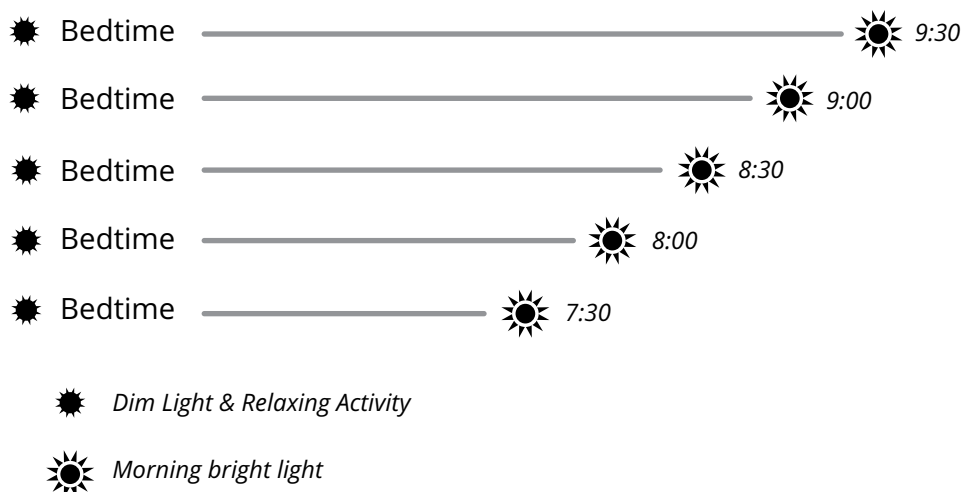


Step 3

For the following week get up about 30 minutes earlier each day and head to a place where there is bright light.

Using the above example, the next morning get up at 9:30 a.m., then next morning 9:00 a.m., then 8:30 a.m., then 8:00 a.m. until you reach your required wake-up time. If you find this diffi-

cult, then for two mornings, you may get up at perhaps 9:30, and then shift to 9:00a.m. on the next morning.



An example of morning bright light protocol

Don't be tempted to get up at 7 a.m. on the first morning to 'hurry' things along. In fact, this can have the opposite effect and delay your body clock even more. You need to gradually advance your wake up time and morning light exposure to earlier times.

Higher intensity visual light stimulation is more effective so avoid wearing dark glasses. Certainly do not look directly at the sun. The longer in the bright light the more effective it will be, so try to get at least 30 minutes of bright light on each occasion.

⚠ Note

If you do not have 30 – 60 minutes each morning, or there is insufficient sunlight available, you might consider purchasing a portable light device such as Re-Timer. Re-Timer provides a UV-free light source which is portable and allows you to undertake activities in the morning (reading, eating breakfast) whilst obtaining your morning light. Information about the device is online at: www.re-timer.com

Step 4

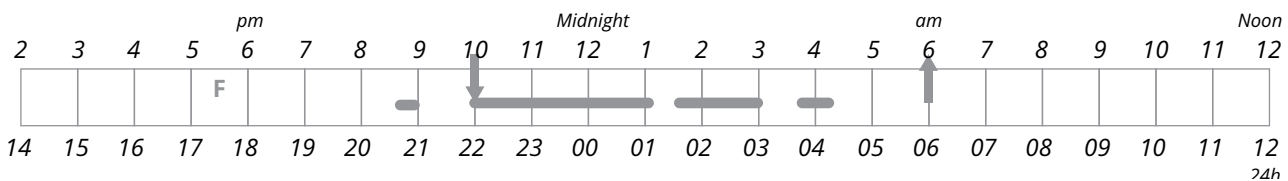
At the same time you will find that you gradually start to feel sleepier and are falling asleep a little earlier each night. However just because you are getting up 30 minutes earlier does not mean that you will immediately fall asleep 30 minutes earlier. Your sleep pattern will gradually get earlier over a week or two of light therapy. But remember, if you go to bed but don't fall asleep within about 15 minutes, then get out of bed and do something relaxing.

Step 5

Once you have re-set your body clock it is important to avoid sleeping-in, no matter what time you go to bed. You will not get morning light if you sleep in and that will cause your clock to delay again. So even if you go out one night until 1 a.m., still get up at about the same time in the morning and get some bright light exposure.

Early timed body clock – Advanced Circadian Rhythm

Remember, people with an early timed body clock feel sleepy in the early evening, can find themselves falling asleep in front of the TV, have no difficulty falling asleep when they go to bed BUT they wake early in the morning and are unable to fall back to sleep. They have a typical sleep diary like that below.



Evening bright light therapy

The most effective way to re-time your body clock to a later time is by obtaining bright light visual stimulation in the evening.

- ▶ Do something active in the evening, for example, in summer go for a walk or work in the garden while there is still sunshine.
- ▶ Keep lights on in the evening as late as possible while working in the kitchen, study, reading or watching television.

A bright light therapy device is more effective, particularly in the winter months when natural sunlight is less available in the evenings. Bright light boxes have been commercially available for several years. These can be found on the internet under 'bright light therapy' or similar search terms. Your body clock and sleep pattern will delay a small amount (10-20 minutes) on each light exposure. The delay will be greater:

- ▶ the later the exposure continues (e.g. until midnight instead of 10 p.m.)
- ▶ the longer the period of exposure (e.g. 60 mins instead of 20 mins)
- ▶ the greater the intensity

When you carry out this therapy it's also very important to avoid bright light in the mornings. So if you go outside in the mornings, for example travelling to work, working in the garden or going for

a walk, you should wear sunglasses for the first couple of hours.

Advanced circadian rhythms, early morning awakening insomnia

The other circadian rhythm problem is when the body clock is timed too early, causing problems of waking too early and not being able to get back to sleep. In the section above this was treated with evening bright light therapy. Melatonin can also help this condition. But the timing of melatonin, in this case, needs to be in the early morning towards the end of the sleep period (perhaps at one of your typical early awakenings). This will help to delay the circadian rhythms and allow a later and longer sleep. Bright light before bedtime will tend to 'push' the sleep later while melatonin taken towards the end of sleep will tend to 'pull' the sleep later.