



# BLUE LIGHT AND DOGS



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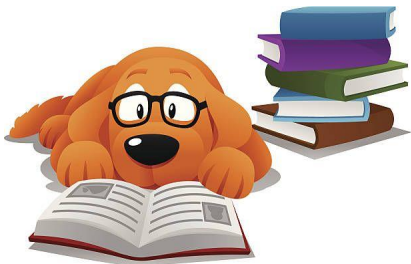
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# Table of Contents

- Introduction
- The study of the University of Southern
- Blue light and dogs
- Create a bedtime ritual
- Get a little extra exercise
- Work in a little training
- Remove unnecessary distractions
- Don't be too harsh
- Conclusion



# Introduction

In Iris we talk a lot about the blue light.  
But always about its effect on humans.  
Today we will be talking about what  
effect does blue light have on animals,  
on dogs in particular and how you can  
prevent it.



We are all aware of the problem with the plastic in the ocean but there are some other things that affect wildlife, even if we don't pay attention to it.

Including blue light.



A research team from the University of Southern California conducted a study on the identification of harmful effects to wildlife as LED lights proliferate.

# The study of the University of Southern

To a great extent, the research was based on a matrix called "Rapid Assessment of Lamp Spectrum to Quantify Ecological Effects of Light at Night."

It is the first publicly available database showing how about two dozen different types of artificial lighting affect wildlife.



Developers, land-use planners, and policymakers can use it to choose lighting that balances the needs of nature and people.

As an addition to their study, the researchers devised an interactive web-based tool to help people make wildlife-friendly choices in outdoor lighting.

Selected species around the world were surveyed to determine how the hues of modern light-emitting diode (LED) lamps affect wildlife.



The results showed that [blue](#) and white light have the worst impact on animals, while yellow, amber and green are more benign.

Some creatures are more vulnerable than others, such as sea turtles and insects.





Nowadays every big city shines as bright as a giant glowing ball, especially at night.

Scientists have been studying how light brightness and direction affects wildlife, including **migration** and **attraction, predator-prey relationships** and **circadian rhythms** for years.

The team from the University of Southern California made that existing ecological data available.

LED lights are expected to comprise 69 percent of the global market by 2020, compared to just 9 percent in 2011.

They are popular because they have many uses, conserve energy and last longer than other lamps.

The research was focused on insects, sea turtles, salmon and Newell's shearwater, a seabird.



Data for these species already existed at the time of the study's conduction.

It was established that [blue](#) and white lights are the worst at night, some having the same effect as the brightness of midday sun.

In comparison yellow and green lights, which are designed with wavelengths less disruptive to wildlife, have three times less effect.

Some of the negative sides of [blue](#) and white lights for the animals include: lights attract migrating juvenile salmon, exposing them to predators.

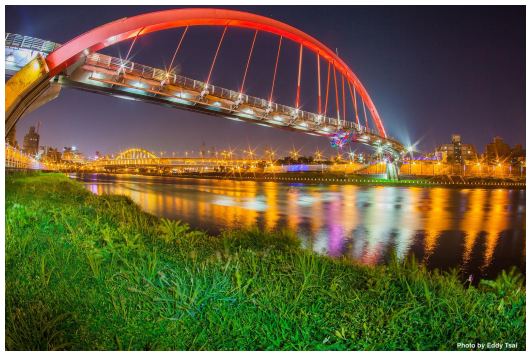


Photo by Eddy Tsai

Travis Longcore, lead author of the study and assistant professor of architecture, spatial sciences and biological sciences with the Spatial Sciences Institute at the USC Dornsife College of Letters, Arts and Sciences, said that global declines in insects have been linked in part to light pollution.



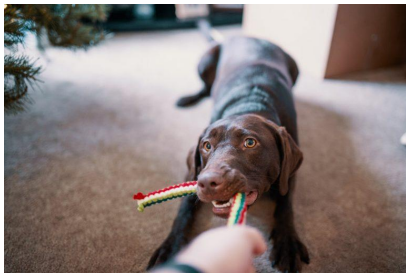
“If we don’t provide advice and information to decisionmakers, they will go with the cheapest lighting or lighting that serves only one interest and does not balance other interests,” Longcore explained.

“We provide a method to assess the probable consequences of new light sources to keep up with the changing technology and wildlife concerns.”

## Blue light and dogs

Here comes the part of the article for all dog parents.

Especially for the ones having trouble with the sleeping patterns of their beloved puppies.



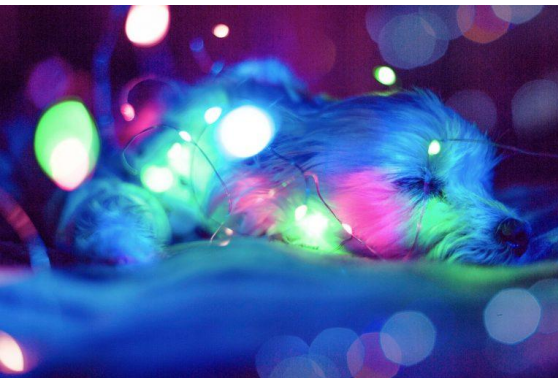
We will take a look at why your dog may be keeping you awake and a few solutions to the problem.

The basic needs every mammal have a pretty clear: food, water, shelter, exercise, and companionship.

There is no doubt you provide your pet with every one of them.

Nevertheless, you still find yourself in a difficult situation – your pup is as playful at night as it is at daytime.

The main cause of this unusual behavior might be... your light bulbs.





Standard light bulbs – and especially CFL (curly) bulbs – emit a lot of Blue Light, which is the same color spectrum as the sun, which have told animals and humans that it's time to be awake.

Just like humans dogs and cats have circadian rhythm – the cycle that tells your body when to get up and when to go to bed.

It is controlled by light and when it is disrupted, your pet can't settle down because his body is simply telling him not to.



A comparison between such condition and insomnia can be made: both cause restlessness, wakefulness and make creatures look for a distraction.



Below you will find a couple of tips to get your pup to calm down and go to bed. They probably resemble your own rituals before bedtime (or the ones you should definitely adapt if you want to sleep better). Having a routine with your beloved fluffy friend might make it even more enjoyable and easier to follow.

# Create a bedtime ritual

Just like human kids and adults as well, the routine is everything.

Set a bedtime and stick to it.



Dim the lights, give a special treat only at bedtime and talk to your puppy about your intentions as crazy as it sounds.

He may not understand the words but he will understand what you are up to.

## Get a little extra exercise

Dogs have a lot of energy to spend in order to be able to rest.



A 30-minute walk may not be enough and if your pup is having trouble settling down at night, add a bit more exercise to help him burn off the extra energy.

## Work in a little training

A little obedience is good for both you and your beloved puppy.

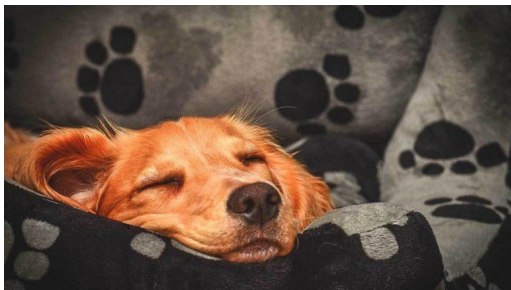
You can try to teach him a command like “lay down” or “bed” which will divert his brain from play to obedience.



If he lays on his bed still and quiet, calmness will likely follow.

## Remove unnecessary distractions

Pick up all toys and bones, speak calmly and let your dog know you are ready for bed.



## Don't be too harsh

Even if your beloved four-legged friend has a little more energy and won't fully listen to you, don't be too harsh – he is just a small creature, trying to understand this world.

Love him and let him know all the interesting things there are for him to play with, smell and taste.

If none of these tips helps your over-excited puppy to go to bed, you may have to change your light bulbs.

A recently released study from Harvard University concludes that Blue Light – a type of UV light that is produced by artificial lighting like CFLs (compact fluorescent lamps) – is detrimental to the circadian rhythm of animals, including humans and dogs.





Too much Blue Light at bedtime can cause insomnia by suppressing melatonin production in the body.

Too little melatonin may be the reason for insomnia and restlessness.



Try to prevent it by turning out CFL bulbs for at least 2 hours before bed or just replace them with biologically-corrected LED lights.

This way both you and your puppy will sleep better and be healthier overall.

# Conclusion

Blue light has a negative effect on humans, as well as on animals.



The people responsible for lighting in areas which are near wildlife should make careful decisions about what kind of lights to use to keep all species safe.

This will be beneficial not only for them but for the planet.

In relation to dogs, trying to follow the recommended tips should have its positive impact.



Here at Iris, we believe that we can make technology healthy for you.

Our software [Iris](#) reduces the amount of [blue light](#) that our screens emit and controls the PWM Flicker.





- ✓ Protect Your Eyes
- ✓ Sleep Better
- ✓ Achieve More



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