

Light 

**START
YOUR
FIGHT!**

SIGHTS



HEALTH



LIFE





What is Light
Pollution?

Creating
Harmful 'Sky Glows'
That Persist Throughout
The Night

Generating

21^{tonnes}
of CO₂
Million

Stencil Ads **Promo Animation** **App** **Action**

(Social Media?)

Alert

Persuade

Inform

**But it Doesn't Have to
Happen**



WHAT IS LIGHT POLLUTION?

The wasteful overuse of artificial lighting, by either the public or the council contributes to the creation of a sky glow, this raises the overall light level within an area and will cause disruptions to the inhabitants vision, sleeping cycle and natural hormone production within both humans and other animals.

HOW DOES THIS IMPACT ME?

Light Pollution contributes massively to the obscuring of the night sky, reducing the number of stars visible by the naked & optically assisted human eye. This prevents amateur and professional astronomy studies

As well as causing a loss of sky quality throughout the affected area, light pollution will also impact individuals health, the presence of artificial lighting will disrupt the natural biological clock humans and animals have developed for thousands of years, this disruption prevents the production of melatonin, responsible for deep sleeping and without it, chemical imbalances in the human body can cause health defects anywhere from a headache, to causing cataracts and cancers.





How does light affect

HEALTH

Light Pollution can cause countless health complications, from disrupting sleep to raising the risk of cancer!

HOW?

The human body has evolved a natural, 'biological' clock, functioning by registering the lowering light level and gradually producing the hormone melatonin, this hormone allows the body to spin down, preparing for sleep as well as allowing for a deeper, more restful sleep.

While it is common knowledge that sleep is key to repair and function within the human body, what happens when this is disrupted is perhaps lesser known.

Circadian Rythms & Sleep

This process of natural hormone production to introduce sleep is known as the circadian rhythm, the sky itself signals the body to begin shut down for sleep and allows for a gradual and natural cycle of sleep and alertness. The introduction of light pollution and the general appearance of artificial light interferes with this rhythm.

If the body is not detecting the lowering light levels due to the activation of, e.g. street lamps. Then the production of melatonin stops, leaving humans to sleep at a higher alert level, not allowing the body and it's many organs to heal and rest. This not only means you may wake up feeling tired and deprived, lacking reaction speeds and patience, your bodily processes are exactly the same, on a cellular level, a lack of coordination and sleep results in a rising level of mistakes made.

What does this mean?

With hormones like melatonin being responsible for regulating almost everything within your body, put simply, this means light pollution can be a factor in any form of illness that occurs. A well rested and regulated body will be far more effective at fighting external illness as well as preventing internal illness, such as rouge cell production going unchecked, resulting in the possible growth of tumors.

there are certain illnesses to be more aware of when inhabiting a highly polluted area, illnesses that rely particularly heavily on the production of hormones to prevent.



How does light affect

SIGHTS

Light Pollution can cause disruptions to the night sky, creating a permanently illuminated landscape, not only lighting the ground, but removing vital stars and other astronomical sights from human view.

HOW?



How does light affect

LIFE

Light Pollution affects not only humans, but the animals and wildlife that surround us too, the effects of wasted light and energy are felt everywhere, altering climates and disrupting food chains.

HOW?

VS

Start Your Fight!

Fighting light pollution starts locally, and starts with identifying your local light pollution levels.

Enter your Location, or scan with your camera below to start your fight!

or

Link back to accessible bortle scale

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INNER CITY SKY

Highest Light Pollution Measurements

Highest Light Pollution Level Action Needed!

Huge and dangerous levels of light pollution cause the sky glow to rise up until the zenith

Sky quality is severely affected above grade 6, and only the brightest stars are available to view, you are only able to see the very brightest stars, and the use of optical aids may be necessary

Sleep disruption & health effects caused by light pollution are to be considered regular, light pollution levels high enough to disrupt natural processes often and

Circadian rhythm disruption and a lack of sleep sleeping will be noticed, resulting in a much higher risk of cancer and cataracts (up to 80% more likely)

Noticable abnormal behaviour in local wildlife, being confused by the constant daytime lighting

Not advised for long/medium term habitation, often and lengthy breaks from grade 9 skies are needed to prevent the formation of long term health effects

Due to the extreme levels of light pollution present, there are reductions that can and must be made in every aspect of your area

Steps Forward

Reduce household lighting and shield light downwards

Ensure public lighting is timed correctly

Ensure use of warmer lights when possible

Encourage action within your local & wider councils

Consider amounts of medical check ups to reduce risk of extended illness

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World 8 Population

Light pollution is responsible for the sky and star quality to be considered average

Visible Pollution

For stars to appear visible in your area

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World 8 Population

25% of UK Population

2-3 million light years away, begins to fade from view

Loss of Milky Way

The Milky Way is no longer visible even after a full 40 minute optical adjustment

Deprived

Light pollution levels have begun to disrupt human biological clock, causing the risk of cancer and cataracts

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World 8 Population

23% of UK Population

A Gray Night

From this point onwards, the natural sky black of the night is unavailable

Bright Clouds

Light pollution and its effects have dominated the clouds so they are now brighter than the sky behind it

Behaviour Change

Many urban animals have their behaviours disrupted due to the constant high levels of light, human sleep disruption worsens

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50% of UK Population

Constant Daylight

Human eyes no longer need to engage their night vision, causing significant disruption to sleep

100 Stars

Fewer than 100 stars can be seen within the entire night sky

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27% of UK Population

A Starless Sky

At this point even some of the brightest stars begin to fade from view

Lost in Space

The North Star is no longer visible within the night sky

Carcinogens

When to grade 6 & 9, breast cancer rates are seen rising by up to 40% due to the lack of circadian disruption, brought on by artificial lighting

Lonely Lunar

The only celestial source visible inside the view being is our own moon

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50% of UK Population

80% of UK Population