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# <u>Sunlight</u>

# **INTRODUCTION**

My basic research question is "how important is it to make daily direct contact with the suns' rays". How many of us actively avoid the sun on a regular basis? How many of us actively wear sunglasses from the start of the day all the way up till the end of the day just to make sure we don't make any contact with the sun? And don't get me wrong, there's nothing wrong with wearing sunglasses, in fact in many cases it's probably beneficial to be wearing them. But in today's society through the marketing of sunglasses and sunscreen many people are under the impression that making direct contact with the sun in all instances is negative. I'm writing this annotated bibliography today to really get to the bottom of this and to hopefully answer any questions you as a reader might have about getting sunlight on a daily basis and how much you should be getting.

# SOURCE ANALYSIS

#### Source #1:

How to Feel Energized and Sleep Better With One Morning Activity | ... Written by: Andrew Huberman. Andrew Huberman is a professor of neurobiology and ophthalmology at Stanford School of Medicine. He also hosts the Huberman Lab Podcast and in the video above explains some of his findings about sunlight exposure.

Summary:

In this video Andrew Huberman speaks about how important it is to get direct exposure from the sun early in the mornings. Huberman goes on to speak about how the artificial light from checking your phone or even turning on the house lights are not going to be enough to turn on our cortisol mechanism and the other "wake up" mechanisms that are going to need to be awake, present, and alert.

Key Quotes:

- "On cloudy days your going to especially need to get out and get sunlight and how much light you will need specifically will vary person to person and will also vary based on how clear the sky is".
- "Some general guidelines include that if it's a clear day you want to get sunlight exposure directly on your body for about 5 minutes. On a day that is more cloudy you'll want to get about 10 minutes of direct sunlight exposure. If it is an especially cloudy day or even a rainy day you'll want to get 15-30 minutes of direct sunlight exposure".
- "Another key thing is do not try to get this sunlight exposure through a windshield of a car or a window whether or not it is tinted or otherwise, it takes far too long to get enough sunlight exposure to trigger the relevant mechanisms. You would be standing there all day trying to get the required amount of sunlight when you could be doing it more efficiently by going outside."

# **Rhetorical Analysis:**

The overall purpose of this youtube video is to inform the viewers about the importance of getting direct exposure from sunlight specifically in the morning time in order to really set up your circadian clock for the rest of the day. He provides lots of interesting information about your skin being an endocrine organ and how important it is to get exposure to sunlight in general, not only in the morning. This youtube video is a wonderful way to get insight into the findings of neuroscientist Andrew Huberman as he has done lots of research on things of this sort.

#### Source #2:

<u>https://www.webmd.com/a-to-z-guides/ss/slideshow-sunlight-health-effects</u> Medically Reviewed by Poonam Sachdev on February 22, 2022

# Summary:

In this article the writer does a great job by explaining step by step how beneficial sunlight can be. The article wonderfully lists the benefits of getting sunlight by listing out how it's beneficial for your eyes, how it provides adequate amounts of vitamin D, how it's great for setting you up for getting proper sleep later on in the day, how important it is for your emotional well being, your skin etc. along with this the writer tells us precautions we can take and how to reap the benefits while minimizing the damages.

Key Quotes:

- "This answer is different for everyone. It depends on your skin tone, age, health history, diet, and where you live. In general, scientists think 5 to 15 minutes -- up to 30 if you're dark-skinned -- is about right to get the most out of it without causing any health problems. You can stay out longer and get the same effect if you use sunscreen. Talk to your doctor about what's right for you".
- "The sun's UV rays help your body make this nutrient, which is important for your bones, blood cells, and immune system. It also helps you take in and use certain minerals, like calcium and phosphorus. And while most people get enough vitamin D from food, children who don't can get rickets, which softens and weakens their bones."
- In addition to some skin issues, filtered sunlight also can be used to treat a condition called jaundice that mostly affects newborns. It happens when there's too much of the chemical bilirubin in the blood, and it makes a baby's skin look slightly yellow. Putting the baby in sunlight behind a window (to filter out the harmful kinds of rays) may help get rid of the bilirubin. Never put a newborn in direct sunlight outside."

# **Rhetorical Analysis:**

The overall purpose of this article is to safely educate the average person about the importance of sunlight, along with how to safely reap the benefits of sunlight while avoiding the drawbacks. The writer starts wonderfully by giving a possible skeptic something to relate to by validating how they might feel by stating how it can be dangerous if not indulged in with caution, but then immediately informing the reader that you can indulge in the benefits of sunlight without the repercussions. The writer then begins to inform the reader about all the many benefits of getting sunlight in moderate amounts on a daily basis. Afterwards the writer goes into the Do's and Don'ts so that the reader understands how to safely indulge in sunlight. Overall the writer did a wonderful job of explaining the benefits of sunlight and exactly how to get it safely. Some exact ways you can safely get vitamin D from the sun include going out during the morning or late afternoon when the sun's rays aren't as strong or harmful. Some benefits of sunlight include how it will help your bones, blood cells, and immune system. It will also aid in taking in nutrients like calcium and phosphorus.

#### Source #3:

# https://www.health.harvard.edu/diseases-and-conditions/benefits-of-moderate-su n-exposure

Written by: Harvard Health Publishing, Harvard Medical School

Summary:

In this article the writer tries to debunk some fears that people might have about sunlight. The writer begins to talk about the actual dangers of sunlight and then begins to talk about how even those dangers are not as straightforward as they seem. The writer also speaks about how these dangers vary drastically person to person and even these dangers can be mitigated with proper exposure to sunlight along with gradually getting yourself used to it. The writer does a great job separating myth from fact in this article and really takes a moderate view at the situation, understanding that there are dangers and there are also benefits. The writer does a good job of validating the readers fears and also giving solutions like wearing SPF of 15 if you're outside in the sun for a long time along with just wearing a regular shirt and hat.

Key Quotes:

- The relationship between sun exposure and skin cancer risk isn't as straightforward as you might think. Genes are a factor, of course: Some protect, some promote. So is skin type: People with pale skin who sunburn easily and don't tan are more likely to get sun-related skin cancer. As for exposure, the "dose" and its timing are crucial. Several studies have suggested that suddenly getting a lot of sun is more dangerous then steady exposure over time."
- "there is a middle way that includes using a sunscreen with a sun protection factor (SPF) of at least 15 when you're outside for an extended period and wearing a hat and shirt around midday"
- "There is a well-documented relationship between low vitamin D levels and poor bone health. Now links have been made to everything from multiple sclerosis to prostate cancer. "Linking" low vitamin D with these diseases doesn't prove cause-and-effect, but it suggests that possibility. Getting some sun may also shake off the wintertime blues: Research suggests that light hitting your skin, not just your eyes, helps reverse seasonal affective disorder (SAD)."

# Rhetorical Analysis:

Overall the purpose of this article is to educate the reader about not only the dangers but also the benefits of exposure to sunlight. For example the article talks about some precautions you can take to avoid negative effects of sunlight for example wearing sunscreen and includes specifically how much you should wear (spf of at least 15). Another example showing how the article talks about some benefits is how the article talks about how getting daily sunlight can reduce symptoms of SAD or seasonal affective disorder. This article takes a very moderate stance on the conversation and does a great job debunking some pseudo science some people may believe through science and facts. This article does a great job of dispelling fears from anyone reading by keeping it light hearted but also not downplaying the possible dangers of sunlight. The article tries to let the reader feel safe to go into the sunlight and puts lots of effort into trying to make sure the reader understands that there is no reason to feel fear towards the sun while not lying to the reader and letting them know that they still need to take caution.

#### Reflection/Conclusion:

Before writing this annotated bibliography I had an idea that getting sunlight is good for you. But after lots of research and keeping an open mind I now understand that sunlight also has many possible dangers. It's very important to get daily sunlight but it is equally important to protect yourself daily as well, but not so much protection where I'm not able to get the benefits, but enough for me to mitigate the drawbacks. I hope that whoever is reading this understands how important sunlight is and precisely how to prevent the dangers. I also hope that you understand when it is most beneficial and safe for us to get sunlight along with why. Overall I hope that we all go outside early in the morning daily and just sit in and absorb sunlight for 10-15 minutes. Adding something like this into our daily routines can really help boost our quality of life. Stay healthy, Stay educated, Stay strong!