Facts

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Circadian Rhythms

The human body has adapted to react to natural light during the course of the day. Light exposure to the eye modulates human circadian rhythms. Circadian rhythms, from the Latin words circa die, means “approximately a day”. Clock genes in mammals create mechanisms in the human body that regulate organs and hormones. Sunlight during the day and lack of it at night provides the natural stimulus that tune the body’s clock.

When the circadian rhythms are in sync humans benefit by enjoying normal: sleep, alertness, appetite, body temperature, metabolism, blood pressure and reproduction.

Sunlight provides other health benefits additional to the above circadian rhythm regulation. The body creates vitamin D in response to sunlight. Vitamin D is the “sunshine vitamin” that plays a role in immunity, bone health, weight and mood regulation. Too much sunlight can cause skin cancer, but too little is problematic.

Music

Sun is a disinfectant for a sour mood. It is harder to be in a bad mood while the sun is shining and the birds are singing. Conditions such as ADD and depression benefit from walking outdoors in green spaces. Songs that reference the sun evoke a happy response even when there is no sun!

<https://experiencelife.com/article/nature-deficit-disorder/>

Quote: Richard Louv

The Methodist church hymn “Morning Has Broken” is a poem describing day break and joy put to song. Many original Methodist hymns “borrowed” melodies sung in bars and applied religious lyrics to them. The Scottish poet Mary MacDonald (1789-1872) wrote a nativity text “Child in the Manger”. The Methodists “borrowed” Mary MacDonald’s text for the song below:

"Morning Has Broken"  
Eleanor Farjeon  
The United Methodist Hymnal, No. 145

Morning has broken like the first morning  
Blackbird has spoken like the first bird  
Praise for the singing  
Praise for the morning  
Praise for them springing fresh from the world

Sweet the rain's new fall, sunlit from heaven  
Like the first dewfall on the first grass  
Praise for the sweetness of the wet garden  
Sprung in completeness where his feet pass

Mine is the sunlight  
Mine is the morning  
Born of the one light Eden saw play  
Praise with elation, praise ev'ry morning  
God's recreation of the new day

Morning has broken like the first morning  
Blackbird has spoken like the first bird  
Praise for the singing  
Praise for the morning  
Praise for them springing fresh from the world

The Justin Timberlake song lyrics for Can’t Stop the Feeling! are below:

I got that sunshine in my pocket  
Got that good soul in my feet  
I feel that hot blood in my body when it drops  
I can't take my eyes up off it, moving so phenomenally  
Room on lock, the way we rock it, so don't stop

Ain’t No Sunshine by Bill Withers compares longing for an absent love to experiencing a dark world:

Ain't no sunshine when she's gone  
It's not warm when she's away  
Ain't no sunshine when she's gone  
And she's always gone too long  
Anytime she goes away

You are the Sunshine of my Life by Stevie Wonder posits that the joy of human love is like sunshine.

You are the sunshine of my life  
That's why I'll always be around  
You are the apple of my eye  
Forever you'll stay in my heart   
I feel like this is the beginning

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Dangerous Orb

The sun makes the earth the wonderful planet that it is. The sun is a big ball of gas and plasma that poses some dangers to the earth and its inhabitants. The earth’s environment has been polluted by these same inhabitants. Greenhouse gases and CFC pollutants have degraded the atmosphere that offers protection from the sun.

The greenhouse effect is like a cozy blanket that traps heat in the troposphere. Carbon dioxide and other heat trapping gases cover the world. Meanwhile the stratosphere above this cozy blanket is becoming colder. The trapped heat below the blanket is not available to warm the ever cooling stratosphere above it. Thinning of, and holes in, the ozone layer (which is in the stratosphere) worsens when the stratosphere is cooler.

**Holes in the ozone layer** allow more UV light to penetrate the stratosphere and enter into the troposphere below. Ozone shields lower atmospheric layers from the sun’s UV rays and heat.

Humans are delicate creatures who need the sun but not too much sun. Even the eyes can become sunburned. Some of the age related sight diseases such as macular degeneration and cataracts are influenced by UV rays. During the **solar eclipse** there were special glasses and binoculars that offered eye protection while observing the sun. For a brief period of time in the summer of 2017 the moon blocked the sun during the eclipse. Then the diamond ring effect shown below signaled the end of the total eclipse.

Diamond ring eclipse picture

Space storms spawned by a **coronal mass ejection** (CME) from the sun could engulf the earth at any time. These storms occur with approximately a hundred year frequency. A giant cloud of magnetized plasma often associated with solar flares can create a shock wave that disrupts the earth’s magnetosphere. Solar flares are explosions on the surface of the sun. If a massive space storm hit earth it would affect technology such as satellites, disrupt radio transmissions and electrical transmission facilities and disable power suppliers. Long power outages on earth could result. On the upside there would be phenomenal Northern and Southern lights in the night sky at the earth’s poles.