

A study done by the *University of New Orleans* in 1995, showed that police officers and hospital workers were among the strongest believers that more crime and **trauma** occurred on nights when the moon was full. **Numerous** other studies have been **conducted** around the world, which seem to support this:

- The *University of Washington* did a study in 1978 concluding that out of 11,613 cases of aggravated **assault** in a 5 year period, assaults occurred more often around the full moon, and 34,318 crimes in a year-long period also showed that crimes occurred more **frequently** during the full moon.
- According to the *Daily Mail*, **informal** research done by the Sussex Police in 2007 concluded that there was indeed a rise in violent crimes committed during the full moon.
- Interestingly enough, New Zealand's Justice Minister, Annette King, supported the link between the moon and crime after a spike in violence in January 2008, which could have been caused by the 'lunar effect'.

The Guardian reported that police have linked full moons to a rise in **aggressive behaviour** among drinkers on the streets of Brighton.

*'Senior officers have decided to **deploy** more police this summer to counter trouble they believe is linked to the lunar cycle. Research*

*carried out by us has shown a **correlation** between violent **incidents** and full moons.'*

Inspector Andy Parr told the *Brighton Argus* evening paper he would be interested in discussing the police **findings** with academics. He said: "I compared a graph of full moons and a graph of last year's violent crimes and there is a **trend**. People tend to be more **aggressive**."



So could there be some truth to the effect of the moon on human behaviour? Is crime really higher during a full moon? Or is it simply our imagination, brought to life by an **innate** fear of predatory beasts, stalking the **moonlit** night?

Maybe so. To quote Neurology Professor Mark Quigg, "once you are in the medical field, there is the constant **bemoaning** that everything happens on a full moon," which includes crime and suicides. Some doctors can **attest** to that, as well as the police – and maybe even a few bartenders.

According to Michael Zimecki's 2006 study, researchers examined the incidence of crimes reported to 3 police stations in different towns in Europe during the period of 1978-1982. This study showed that the

incidence of crimes committed on full-moon days was much higher than on all other days. The author concluded that the increased percentage of crimes and suicides on full moon days may be due to “human tidal waves” caused by the **gravitational pull** of the moon.

In a study led by Dr. Christian Cajochen of the *University of Basel's* Psychiatric hospital, 33 volunteers participated to find about the light effects of the moon as it impacts our ability to get a good night's sleep. The researchers found that it took 5 minutes longer for the volunteers to fall asleep when there was a full moon, with 30% less time in deep sleep, and 20 minutes less sleep overall.

Miami psychiatrist Arnold Leiber (1978), in his book, *The Lunar Effect*, **proposed** that the moon was linked to human behaviour by **adversely** affecting their mental and emotional ability by raising physiological **disruptive** “biological tides” in the body akin to the tides it raises in the earth's ocean.

Other researchers **speculate** that the human hormone **cycle** may be directly related to lunar **cycles**. It seems strange that human hormones seem to reach a peak for a few days every month (the word ‘month’ itself is derived from the word ‘moon’). Perhaps this spike in hormones was originally timed to **coincide** with the full moon, over hundreds of thousands of years of evolution?

But what possible evolutionary benefit could humans have from having a hormonal spike during a full moon?

Well, the extra spike in **adrenaline** –the chemical that allows us to fight or flee from danger– may have protected us from predators, such as lions or wolves, which tend to be far more active during the full moon. This may have given humans an added edge when it came to running from danger, or defending themselves from it.

In a world before streetlights, the best nights for human to hunt would have been during the full moon; when the night is at its brightest. Because of this, having a higher level of **adrenaline** during this period could have helped to ensure humans were able to hunt animals successfully.

Perhaps this is where the legends of werewolves and monsters –stalking the countryside on full moon nights– **originated** from; an innate fear of predators, or perhaps the **increased likelihood** for humans themselves to act violently during the full moon.

Whatever the answer may be, take care of yourself next time you're out during the full moon.

Vocabulary

Write down the meaning of the following words:

Centuries

Intermittent

Insanity

Entrenched

Lunatic

Trauma

Numerous

Conducted

Assault

Frequently

Informal

Aggressive

Behaviour

Deploy

Counter

Correlation

Incidents

Findings

Trend

Innate

Moonlit

Bemoaning

Attest

Incidence

Gravitational pull

Proposed

Adversely

Disruptive

Speculate

Cycle

Coincide

Adrenaline

Originated

Increased likelihood

Questions

Where does the word 'Lunatic' come from?

According to the study done by the *University of New Orleans* in 1995, what do police officers and workers believe?

What did Neurology Professor Mark Quigg say?

What did Michael Zimecki's 2006 study show?

How many people participated in the study led by Dr. Christian Cajochen?

What did the study by Dr. Christian Cajochen show?

Do you believe that crime is higher during the full moon? Why?

Paraphrasing

Rewrite the following sentences in your own words, but make sure the meaning remains the same:

- For many **centuries**, people across the world have believed that the moon can be the source of **intermittent insanity**.

- ---

- **Numerous** other studies have been **conducted** around the world, which seem to support this:

- ---

- *'Senior officers have decided to **deploy** more police this summer to **counter** trouble they believe is linked to the lunar cycle.'*

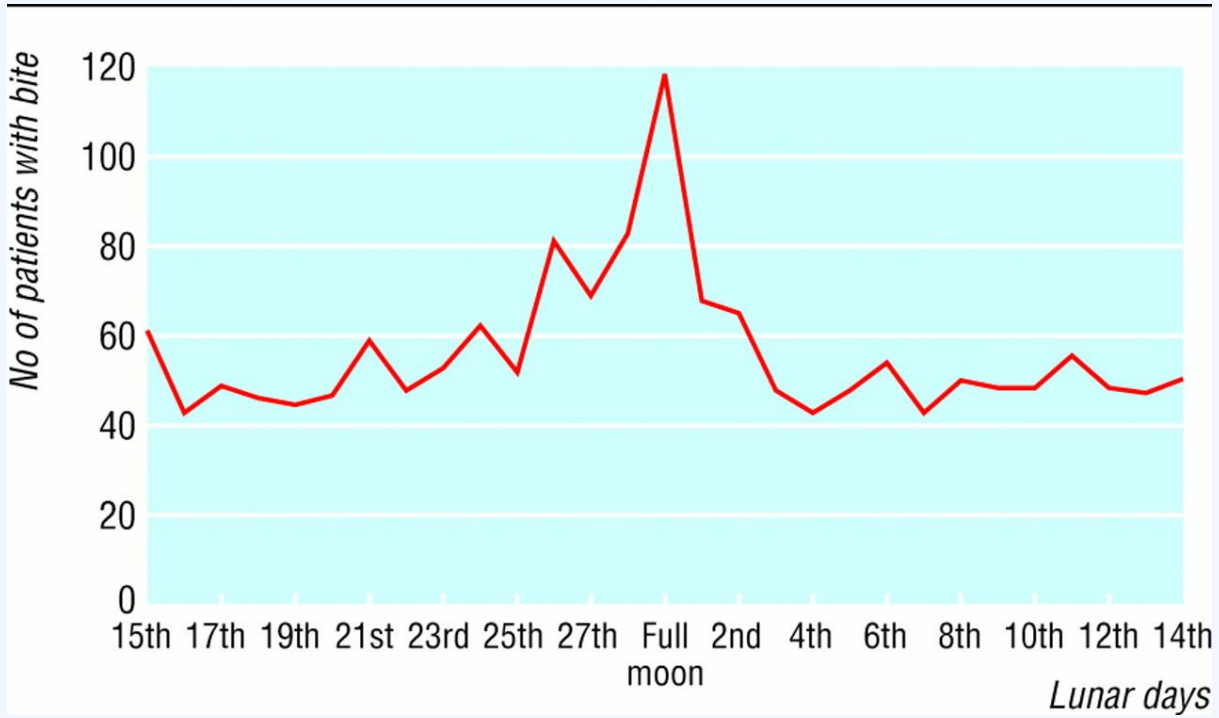
- ---



- *Research carried out by us has shown a **correlation** between violent **incidents** and full moons.'*

Data analysis of graphs

The graph below shows the number of patients admitted to hospital suffering from bites from animals, over the period of a month.



At what point are the number of patients with bites at their *lowest*?

At what point are the number of patients with bites at their *highest*?

What does the graph show overall?

Facts about the Moon, the Earth and the Sun

Moon:

- The Moon is a natural satellite of the Earth, a celestial body that orbits a planet.
- It is the 5th largest natural satellite in the Solar System.
- It is the quarter of Earth's diameter and $1/81$ of Earth's Mass.

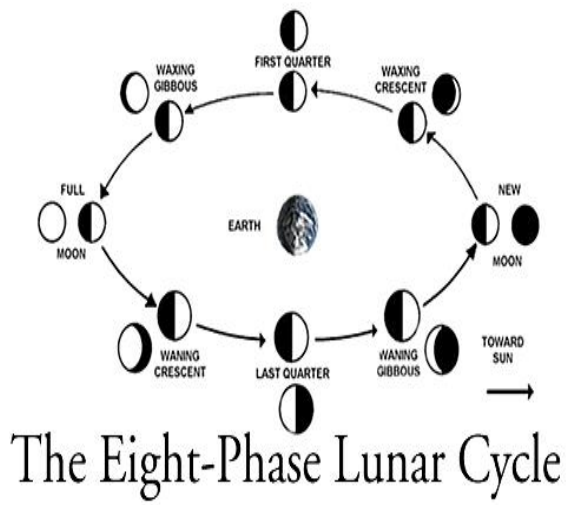
Motions of the Moon:

- Orbits and rotates at the same speed.
- The same side of the moon *always* faces Earth.

Sun, Earth, and Moon:

- The moon reflects the light of the sun; it does NOT make its own light.
- It takes 29.5 days (approximately one month) to go around the Earth in its orbit.

The Phases of the Moon



Describe the lunar cycle in your own words:
