



AN ANCIENT ASSET REGARDING HAIRS PROVED BY NEWTON'S UNIVERSAL LAW.

Dr. Suruchi¹, Dr. Suvarna P. Shelar² Dr. Vishal W. Hend³ Dr. Umesh V. Tekawade⁴

Dr. Bharat M.Rokade⁵

1.PG Scholar, Department of Rachana Sharir, Bharati Vidyapeeth [Deemed to be University]

College of Ayurved, Pune, Maharashtra, India.

2. Associate Professor, Department of Rachana Sharir, Bharati Vidyapeeth [Deemed to be University]

College of Ayurved, Pune, Maharashtra, India.

3.Assistant Professor, Department of Rachana Sharir, Bharti Vidyapeeth [Deemed to be University]

College of Ayurved, Pune, Maharashtra, India.

4.Professor, Department of Rachana Sharir, Bharati Vidyapeeth [Deemed to be University]

College of Ayurved, Pune, Maharashtra, India.

5. Associate Professor, Department of Shalya Tantra, Bharati Vidyapeeth [Deemed to be University]

College of Ayurved, Pune, Maharashtra, India.

Corresponding Author: Dr. Suvarna Shelar,

Associate Professor College of Ayurved, Bharati Vidyapeeth deemed to be University Pune.

Abstract:

For centuries, there are many beliefs affirming a strong correlation between the moon and humans. These beliefs are descended from ancient Greece and Rome, throughout the Middle Ages, and up to the present. Now they are commonly found in folklore and in manuscripts. Until today, many important rituals and ceremonies were often timed to match the milestones of the lunar month. Many modern discoveries are made that reproves the correlation between moon phases and humans. "Lunar hair care" is also one of the forgotten discoveries that our ancestor's logical brains discovered but due to lack of documentation, it all vanished. Lunar hair care is incorporating the power of the different moon phases into hair-care practices. It involves syncing hair trims with the lunar cycles. In this study, we are trying to prove those ancient assets of not cutting hair on new moon and full moon and ideal time of cutting hair are waning and waxing moon phase by Newton's universal law of gravitation.

Keywords-Newton gravitation law, Hair, New moon, Full moon, Lunar hair care, Lunar phase

INTRODUCTION:

“Watch the moon before cutting hair”, “Not a great day for a cut”, and many more identical lines we heard from our elders regarding haircutting. Do the moon and we have any significant relationship other than stories and poems? The answer is yes! The moon heals and rejuvenates the mind and body. It is a symbol of relaxation and rejuvenation. Moonlight has apprehensive holistic healing properties, but its importance remains limited to ayurvedic literature, astrological studies, philosophy, spirituality, and poetry, or it remains confined to subjective feeling only, but now its therapeutic effects have been objectified through many published research papers, articles, and books. To this day many auspicious ceremonies and religious festivals like Easter, Passover, Raksha-Bandhan, etc⁽¹⁾ are often timed to match precise phases of the lunar month. Many calendar years were based on moon cycles including the Islamic, Hebrew, and Chinese calendars. A large number of investigations and publications have shown the association of different lunar phases with earth beings (living and non-living) e.g. water tides, air tides, plant growth, animal behaviour ⁽²⁾, human behaviour, etc.

Some of the published shreds of evidence show the relationship between different moon phases and humans. The gravitation pull of the moon on earth is the reason for this phenomenon.

- **Reproduction:** A synchronous relationship between the menstrual cycle and lunar rhythm was confirmed by an article concluding a large proportion of menstruations occurred around the new moon ⁽³⁾. One of the first people to suggest a link between menstruation and the moon was none other than Charles Darwin. Who observed the link between the length of the menstrual cycle and that of the lunar cycle⁽⁴⁾. Another study shows that women tend to ovulate in the dark phase(between the new and full moon) of the lunar period⁽⁵⁾. A statistical analysis of the distribution of births in the lunar month shows that more babies are born between the last quarter and the new moon, and fewer are born in the first quarter of the moon.⁽⁶⁾ and peak fertility at 3rd quarter⁽⁷⁾
- **Cardiovascular ⁽⁸⁾ and acute coronary events:** An increased incidence of acute coronary events, intracranial aneurysm rupture, and subarachnoid haemorrhages have been reported on new moon days.
- **Sleep:** The lunar cycle modulates human sleep and melatonin rhythms. It was found that around the full moon, electroencephalogram (EEG) delta activity during NREM sleep, an

indicator of deep_sleep, decreased by 30%, time to fall asleep increased by 5 min, and EEG-assessed total sleep duration was reduced by 20 min⁽⁹⁾.

- **Behavioural changes:** There is an increase in cases of crime (Thakur and Sharma 1984), self-poisoning (Buckley et al. 1993), myocardial infarction (Sha et al. 1989), misbehaviour (Hicks-Caskey et al. 1991)⁽¹⁰⁾, traffic accidents (Alonso 1993).
- **Emergency units:** A significant increase number of cases reported on the full moon of variceal haemorrhage⁽¹¹⁾ in men, clustering seizures, SWL (shock wave lithotripsy) performed in first quarter may be less painful⁽¹²⁾ and gastrointestinal haemorrhage⁽¹³⁾.

These proven correlations reverified **Hippocrates's** wording that “no physician should be entrusted with the treatment of disease who was ignorant of the science of astronomy”⁽¹⁴⁾.

The effect of the force of gravitation of the moon is not limited to this but many more new chapters are being continuously added to the index of “Correlation between the lunar cycle and human being” for example- lunar hair care. It is an ancient asset that has a set of protocols regarding hair trimming that our scholars discovered. **Lunar Hair Care**⁽¹⁵⁾ - It is a way to incorporate the moon's gravitation pull in fastening hair growth. This involves syncing specific lunar phase timing with a hair care regime like hair trimming. There are some days they strictly restrict hair cut while some days they recommend trimming to encourage hair growth. It is one of the most interesting, ground-level, self-observation effects. It has attracted the attention of many researchers in the last few years and still gaining tremendous popularity because people are witnessing its astonishing results. The Greek philosopher Aristotle and Roman historian Pliny the Elder suggested that the brain was the “moistest” organ in the body⁽¹⁶⁾ and thereby most susceptible to the pernicious influences of the moon. This principle of upward movement of body fluid by the Moon's gravitation pulls on body fluid (including blood) is used in lunar hair care, as maximum blood is dragged into scalp causing maximum vascularity of scalp that ultimately cause an increase of oxygen and nutrients supply to the hair follicle and resulting in healthy stronger hair hence moon turn out to be a growth regulator.

.

ANCIENT ASSEST's REGARDING LUNAR HAIR CARE:

- According to a book “Nitya Karam Pooja Prakash”⁽¹⁷⁾- Shorkarm (cutting hair, nails) is prohibited on Amavasya (**new moon**), Poornima (**Full moon**), Sankranti (when Sun

changes zodiac), Bhadra(Inauspicious day), fasting and Shradh(ritual that is performed for ancestors) .It is also contraindicated on Tuesday and Saturday.

- According to Narad Samhita⁽¹⁸⁾-Cutting hair on full moon (Purnima) and Amavasya(newmoon) is prohibited.
- According to Niranaya sindhu⁽¹⁹⁾-No hair cutting ceremony(mundane)should be done on new moon and full moon.
- According to folklore⁽²⁰⁾-If hair is cut during the Moon's **waxing phase** (between new and full) hair growth is encouraged.
- According to The Farmer's Almanac⁽²¹⁾ (oldest continuously published periodical since 1792 in North America)-For faster Growth the period between the new and full moon (first and second quarters) is considered as the best time to perform tasks that require strength, fertility and growth.
- According to Sadguru⁽²²⁾ (An Indian spiritual and yoga guru awarded with Padma Vibhushan.)-One should shave their hair on Shivaratri, which is one day before Amavasya or the new moon, because on that day and the next day, there is an upsurge of energy in the human system. Which we want to accelerate a little more by cutting hair.

We have also chosen the statements of many famous people who deal with hair on a regular basis those are **-hairstylists**.

- According to Stefani Padilla,⁽²³⁾ (hairstylist). -"Just as the moon pulls the tides in the ocean, it pulls upon all bodies of water: This causes moisture to rise on earth, which encourages growth. "It is this upward movement of water, cued by the moon, that is at the root of lunar hair care. After all, humans are made up mostly of water.
- Michelle Navar (hairstylist)⁽²⁴⁾- She believes cutting hair during the new moon promotes and stimulates growth and length. she recommends getting your hair cut during a full moon in order to increase thickness.
- According to Schwarzkopf ⁽²⁵⁾-An international and well-known hair cosmetic brand) – Conditions during the waxing moon promote hair growth after a haircut. Therefore, you should cut your hair between the new and full moon if you want your hair to grow fast after a haircut.
- Markenson and Gottesdiener⁽²⁶⁾ (hairdresser, salon owner, and creator of Reverie hair products) both agree that the last quarter of the moon, the waning moon, is the best time to cut.

- Gottesdiener⁽²⁶⁾ (Hairdresser, salon owner, and creator of Reverie hair products)warns against trying a brand-new, or shocking, style during full moon .
- Red Door Spas⁽²⁷⁾ shed light at its Moonlit Hair Event displayed- Hair grows its healthiest when you cut during the New Moon lunar hair care.

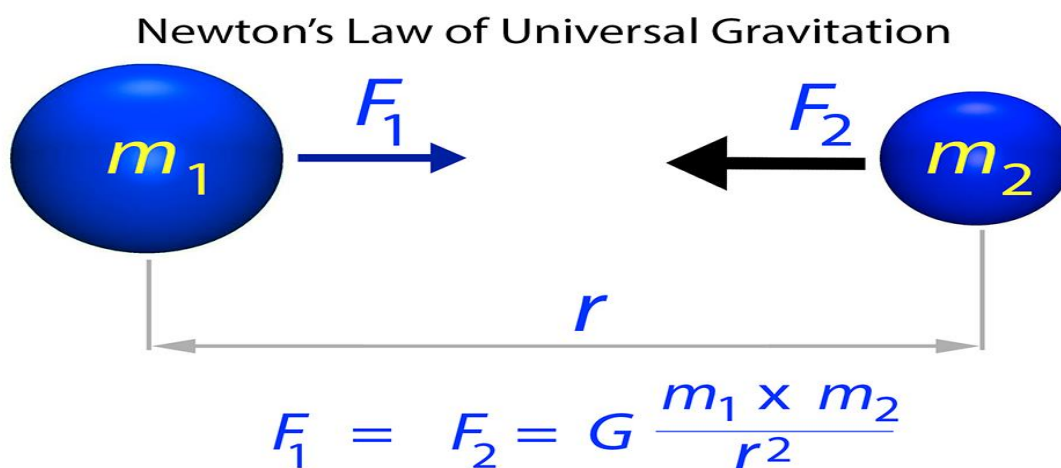
By the above statements, it can be concluded that ancient assets and modern experiences, both landed on a common ground i.e.:

1. Cutting hair on new moon and full moon is not advised.
2. Ideal times for trimming hair that will give healthy long hair are either waning or waxing moon only.

The gravitation pulls of the Moon and Sun on Earth change according to their arrangement and this arrangement will demonstrate why trimming hair on the new moon and the full moon is strictly prohibited and why waxing and waning are mentioned as the ideal time for trimming hair.

Let me prove those ancient assets by universal gravitation law:-

According to Newton's law of gravitation⁽²⁸⁾ -Every particle attracts every other particle in the universe by the force of gravitation. Earth and moon also follow the same universal law, They pull each other with the same intensity and opposite direction.



For any two objects, the gravitational force of attraction (F) is proportional to the mass (m) of the objects. Force decreases with the square of the distance (r) between the center of the two objects. G is the *Universal Gravitational Constant*.

As a result of that, many well-known illustrations took place e.g. water tides. Being a "Universal law" it can be applied to any universal event, and will prove that phenomenon without any expectations. All firmly attached bodies(tree,crops,nail,horn)of earth will respond to this gravitation pull of moon in form of growth and Loosely attached/detached

bodies(liquid, gas) will respond to this phenomenon in form of trajectory motion(tides). Accordingly, Firmly attached appendages of the human body like hairs,nails will respond to this gravitation force as growth and freely circulating fluids of the human body will show upraising motion as a result of this.

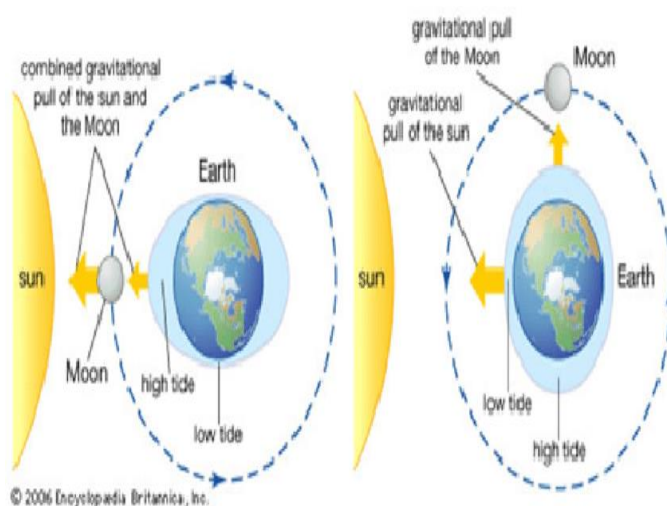
According to law⁽²⁹⁾,there are two factors that cause increase in gravitation pull on hairs than regular days that can harm hair-

1 Additional sun gravitational pull will increase resultant gravitation pull on human hair.

2 Decreased radius between moon and earth will increase resultant gravitation pull on human hair. (According to newtons law radius in inversely proportional to force)

1. The moon has four principal (primary/major) lunar phases: the new moon, first quarter, full moon, and last quarter.Described below⁽³⁰⁾⁽³¹⁾⁽³²⁾

- **At new moon** -Moon is in between sun and earth They all are line up in single line .Moon will exert its gravitation pull on earth and its ecosystem constantly (according to newton's gravitation law) and add on effect of the sun's gravitation force is also in same direction as moon, resulting in a maximum force of gravitation pull on hair . During this phase, it's said that the hair is weakened, and the greatest amount of hair loss occurs, therefore going for a major game-changing haircut may not be the best idea.



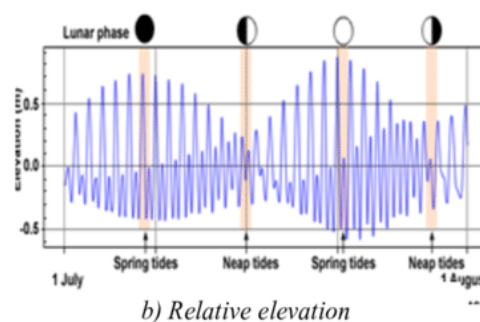
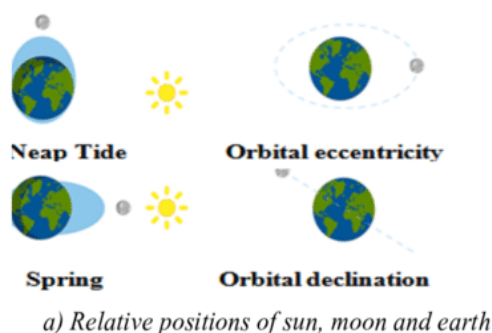
- **At first quarter moon** phase when moon is shifting away from previous linear arrangement. Moon is showing the same force of gravitation pull but add on effect of sun's gravitation force acted at angle of 90 degrees and thus the resultant force is decreased in comparison to the new moon.
- **At full moon**, when the moon is fully visible from the earth but is actually opposite to the sun. At this time they are also forming a straight line but the gravitation pull of the sun is in the opposite direction of that of the moon, resulting in a decrease of the resultant force .But not less as quarters because in full moon and new moon, the moon is actually nearer to earth as compare to quarters.

- **At last quarter moon** and sun force made an angle resulting in the decrease of resultant force

During the **quarter moon phase**, the gravitational forces of the Sun and Moon are at their minimum⁽³³⁾.

Hence gravitation pull on newmoon > fullmoon > first quarter =last quarter⁽³⁴⁾⁽³⁵⁾⁽³⁶⁾

[As this is purely a new concept so no direct statistical data related to gravitation force effect on human hair is available so we will take help of gravitation force on ocean to prove it. As we have several references showing similarity between tides and hair growth by gravitation pull. According to Stacey DeMarco⁽³⁷⁾-(Australian most reputed metaphysician /spiritual practioner)-different moon phase influences hair growth just like it influences tides.

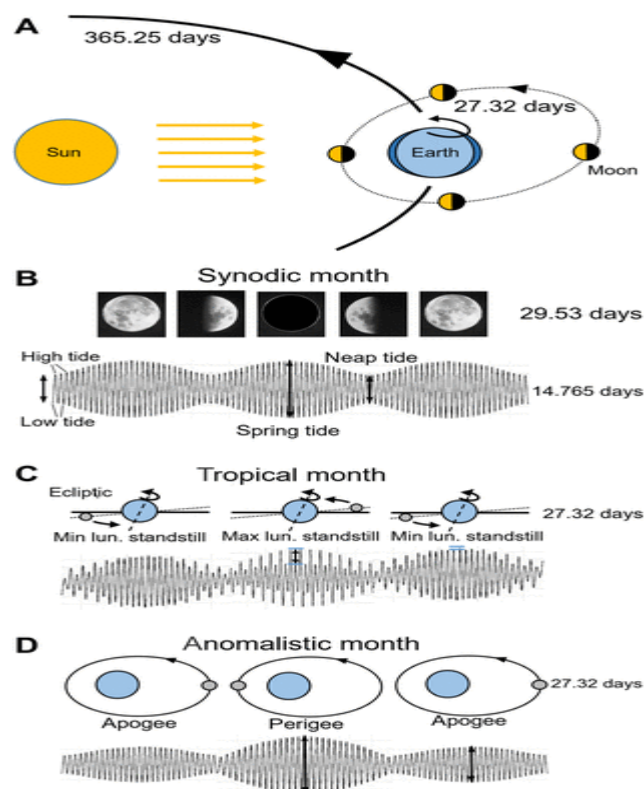
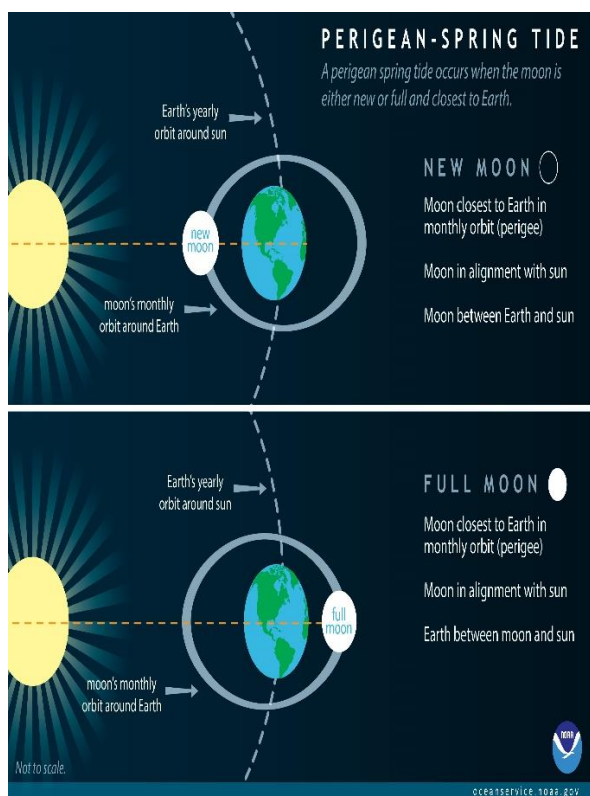


The gravitational attractive force depends on mass and radius. The greater the mass of the objects and the closer they are to each other, the greater the gravitational attraction between them. Our Sun is 27 million times larger than moon based on its mass. The sun gravitation attraction to earth will be 177 times but sun is 390 times far away from earth causing its gravitation to be half (44 %) of moons gravitation⁽³⁸⁾. Gravity of the sun reinforces the moons gravity hence suns gravitation pull will act as auxiliary in comparison to moons gravitation force. Hence this decreases the importance of the first factor and our search to find another factor that can actually increase the gravitation pull on human hair ended in the second factor i.e. decreased radius between the moon and earth.

2. Radius is decreased between moon and earth at perigee⁽³⁹⁾⁽⁴⁰⁾

The Moon's orbit around Earth is elliptical, with one side closer to Earth than the other. It takes the Earth 365.242 days for the Earth to orbit the Sun. The Moon completes one orbit around the Earth in 27.3 days (called the sidereal month). However, due to the Earth's motion around the Sun, it has not finished a full cycle until it reaches the point in its orbit where the Sun is in the same position (29.53 days) - this is the time from one full moon to the next.

However, both the Earth and the Moon have orbits that are slightly elliptical (not circular). This has an influence on the intensity on gravitation force and tide cycles (Figure below). Perigee is when the Moon is closest to the Earth. Apogee the Moon the farthest from the Earth. Perihelion is when Earth is closest to the Sun . Aphelion Earth is farthest from the Sun. **Because the Moon has a greater gravitation pull, the highest tides happen at perigee when there is a full or new moon(below picture).** This happens a couple times a year and are called king tides. King tides occur when the Earth, Moon and Sun are aligned at perigee and perihelion, resulting in the largest tidal ranges seen over the course of a year.



So accordingly gravitation pull of moon is newmoon =fullmoon>firstquarter/last quarter.

Many references found justifying the above statement. During **full moon or new moon** phases, the gravitational forces of the Sun and Moon are **maximized**. During **the quarter moon phases**, the gravitational forces of the Sun and Moon are at their **minimum**,

Schneider (41) has reported, it is known that, at the **new moon**, sun and moon exert their additive **maximum gravitational effects on the earth**. This is greatest at the new moon (the moon is not visible) and full moon.so not a great time to trim hair. Then what is the ideal time to trim them ?is this really waning and waxing phase? if yes then how?

we found new moon and full moon and have maximum gravitation pull. This causes weakening of hair so it's a not good idea to trim them. Gravitation pull is minimum in the

waning as well as the waxing phase as compared to rest phases. Hence the in-between period that is waxing and waning is ideal to trim.

DISCUSSION

We found out that new moon and full moon have maximum gravitation pull on hair resulting in weakening of hair roots and falling of weak fragile dead ends. During this worn and torn process many healthy strands also fall make the situation worse so obviously new moon and full moon phase is not ideal for a haircut .one should prefer to trim hair before it. i.e waning and waxing phase specially 1-2 days before this event. By simply hair trimming on waning and waxing moon phase, we can protect hair from maximum loss caused during the maximum pull phase and utilising that period. But how can we utilize that devastating period? It is making hair weaker making them to fall. it's all true, that period is very harmful to hair those are dead ,weak ,split ends but if we trim them regularly before new moon and full moon phase we will get two benefits .first we all are aware of now that no innocent healthy hair will fall with fragile one. secondly with increase in gravitation pull on hair, blood also experiences maximum pull towards moon direction resulting maximum blood dragged towards scalp cause maximum vascularity of scalp .Ultimately cause increase of oxygen and nutrients supply to hair follicle resulting in healthy stronger hair. Increase blood supply to hair follicle will keeping them in their active (anaphase)and even the hair follicles those have entered the telogen phase(dormant)will retrieve back to its active phase⁽⁴²⁾. Managing editor Sandi Duncan explained Theoretically, why to trim "When you trim your hair you are removing dead ends, which helps to keep your hair healthy,"

There are so many factors on which hair growth depends including genetics,climate,diet, medications,lifestyle,hair care routine etc and lunar phase is one of the natural phenomenon to promote hair growth due to maximum gravitation pull that will increase cephalic vascularity.Due to high vascularity hair follicle will make healthy and strong hairs .

Even the potential and most effective hair growth solution is to increase blood supply to scalp. There are different ways to do this

1 Warm oil scalp massage will cause vasodilation⁽⁴³⁾

2 Exercises like shirshasana,halasan,swanasan,utanpadasan,headhanging position etc will increase blood supply to cephalic region.

3 Widely used Medication for hair fall is peppermint oil (Herbal)⁽⁴⁴⁾, Minoxidil⁽⁴⁵⁾⁽⁴⁶⁾ cause vasodilation.

4 Microneedling⁽⁴⁷⁾-It is a promising and safe hair fall/loss treatment for hair stimulation

5 VEGF(vascular endothelial growth factor) reduces hair fall by promoting blood circulation and formation of new blood vessel around follicle⁽⁴⁸⁾.

Although hair are dead, why you use healthy and dead terms to it? how can I differentiate between healthy and dead hair? where to trim exactly? Hair grows from hair follicles but as soon they pass that follicle, they are just dead protein and lipid strand. Protein helps to strengthen the hair bond and help it to grow hair without breakage but excessive exposure of harsh chemical and decreased protein diet will cause decrease in hair protein. Protein helps to strengthen hair bond and decrease water loss and help to grow hair without breakage and lipid encourage hair growth so, when they decrease cause split end, weak fragile hair termed as dead end. Hence trim at the site that is thin from the previous shaft and looks more prone to breakage .

Even our fictional television shows, shows this aspect clearly in which a Normal person turns into a powerful and stronger version of themselves with excessive hair and nail growth on the full moon and new moon ,how? Why they choose only full moon and new moon? They reluctantly knew the importance of new moon and full moon. Both phases exerts maximum gravitational pull, causing rushing of blood more towards your cephalic region, providing maximum oxygen and glucose supplying to brain cells resulting in making individual more awake, aware, alert , and finally converting individuals to the most powerful version of themselves that made them to do easily any unusual, unrealistic task and elongation of hairs and nails are self-explanatory to you after this article.

Natural phenomena are self-proven due to their regular periodic repetitions. Science is only re-proving them with their constantly refining instruments and technology. Nowadays hair fall is very common among people of every age due to many conditions. So, it is prescribed to cut 1-2 days prior to the new moon and full moon so that it will break less and your hair follicle gets enough blood supply to have healthy hairs.

CONCLUSION: It is not an invention but a discovery of our ancestor's logical brain and it all vanished due to lack of documentation. Hereby we conclude that new moon and full moon is the phase having maximum gravitation pull on hairs cause weakening of hair roots so a big no to cut or trim hair on that period but if you cut weak ends before new moons and full moon than the same factor turns out in your favour by causing them to grow more due to increase cephalic vascularity by its strong pull, so trimming dead hair prior to the new moon and full moon will cause less breakage of hair and more healthy hair growth .

REFERENCES:

1. Dichev ID, Janes TD. Lunar Cycle Effects in Stock Returns. SSRN Electron J. 2005;
2. Zimecki M. The lunar cycle: effects on human and animal behavior and physiology. *Postepy Hig Med Dosw (Online)*. 2006;60:1–7.
3. Law SP. The regulation of menstrual cycle and its relationship to the moon. *Acta Obstet Gynecol Scand*. 1986;65(1):45–8.
4. Luis Villazon. Is it coincidental that the human menstrual cycle is about the same length as the Moon cycle? BBC Sci Focus [Internet]. Available from: <https://www.sciencefocus.com/the-human-body/is-it-coincidental-that-the-human-menstrual-cycle-is-about-the-same-length-as-the-moon-cycle/>
5. Cutler WB. Lunar and menstrual phase locking. *Am J Obstet Gynecol*. 1980 Aug;137(7):834–9.
6. Guillon P, Guillon D, Lansac J, Soutoul JH, Bertrand P, Hornecker JP. [Births, fertility, rhythms and lunar cycle. A statistical study of 5,927,978 births]. *J Gynecol Obstet Biol Reprod (Paris)*. 1986;15(3):265–71.
7. A lunar effect on fertility. 1981;28:19485565.
8. Wake R, Fukuda D, Yoshiyama M, Shimada K, Yoshikawa J. The effect of the gravitation of the moon on acute myocardial infarction. Vol. 25, *The American journal of emergency medicine*. United States; 2007. p. 256–8.
9. Cajochen C, Altanay-Ekici S, Münch M, Frey S, Knoblauch V, Wirz-Justice A. Evidence that the lunar cycle influences human sleep. *Curr Biol*. 2013;23(15):1485–8.
10. Owen C, Tarantello C, Jones M, Tennant C. Lunar cycles and violent behaviour. *Aust N Z J Psychiatry*. 1998;32(4):496–9.
11. Thalheimer U, Triantes CK, Samonakis DN, Patch D, Burroughs AK. Infection, coagulation, and variceal bleeding in cirrhosis. *Gut*.

- 2005;54(4):556–63.
12. Tokgöz H, Yalçinkaya S, İslamoğlu E, Karamık K, Tokgöz Ö, Savaş M. Lunar cycle may have an effect on Shock Wave Lithotripsy related pain outcome. *Ghana Med J.* 2017;51(4):181–6.
 13. Rockall TA, Logan RFA, Devlin HB, Northfield TC. Influencing the practice and outcome in acute upper gastrointestinal haemorrhage. *Gut.* 1997;41(5):606–11.
 14. Iosif A, Ballon B. Bad moon rising: The persistent belief in lunar connections to madness. *C Can Med Assoc J.* 2005;173(12):1498–500.
 15. Horoscope D, Events C. Lunar Hair Care : Cutting Your Hair By The Moon ' s Phases Mbg What is lunar hair care ? 2020;1–6.
 16. Now S, Arkowitz BH. Lunacy and the Full Moon. In: ISHA.sadguru [Internet]. 2009. Available from: <https://isha.sadhguru.org/in/en/wisdom/article/what-is-the-significance-of-shaving-ones-head>
 17. Pt.lalbihari mishra. Hindi Book-Nitya-Karm-Pooja-Prakash(Complete)by Gita Press.pdf [Internet]. Gita press gorakhpur; 367 p. Available from: <https://archive.org/details/HindiBookNityaKarmPoojaPrakashCompletebyGitaPress>
 18. Narada A to devarsi. Narad-samhita [Internet]. sarma vasant ram, editor. khemraj shrikrishandas at the venkateshwar steam press,mumbai(bombay); 1967. 59 p. Available from: <https://archive.org/details/naradasam>
 19. jwala prasad ji. Nirnay sindhu [Internet]. 2, editor. khemraj shri krishnadas bombay; Available from: <https://archive.org/details/nirnaya-sindhu-hindi>
 20. Up S. Get Almanac ' s Daily Updates Free Email Newsletter. ALMANAC [Internet]. 2022;1–5. Available from: <https://www.almanac.com/fact/ive-heard-that-if-you-cut-your>
 21. Member BA, Signup N, Store SOUR, Almanac PTHE. Farmers ' Almanac Best Days Calendar , December 27 th 2022 To January View By Category : :1–5.

22. sadhguru. what-is-the-significance-of-shaving-ones-head @ isha.sadhguru.org [Internet]. Available from: <https://isha.sadhguru.org/in/en/wisdom/article/what-is-the-significance-of-shaving-ones-head>
23. Horoscope D, Events C. Lunar Hair Care : Cutting Your Hair By The Moon ' s Phases Mindbodygreen Mindbodygreen. mbg lifestyle [Internet]. 2020;1–6. Available from: <https://www.mindbodygreen.com/articles/lunar-hair-care>
24. Cycles L, Hair A, Martinez P. Here ' s Why You Should Cut Your Hair on the New Moon. 2022;1–9. Available from: <https://maneaddicts.com/lunar-cycle-affects-hair-growth/>
25. Styling H, Care H, Brands OUR. <https://www.schwarzkopf.international/en/hairstyling/tipsandtricks/hair-lunar-calendar.html> 1/2. :1–2.
26. The H, Phase M, Influence C, Haircut Y. Short Series CrushedS2 I Free. 2016;1–10. Available from: <https://www.nylon.com/articles/moon-phase-haircut>
27. Jackie Burns Brisman. The Ways of the Maya : New Moon Trims for Faster Hair Growth ? Special Offers Near. spa finder [Internet]. 2012; Available from: <https://www.spafinder.com/blog/beauty/the-maya-moon-trims-faster-hair-growth/>
28. Mathematica P. Newton ' s law of universal gravitation. In: wikipedia [Internet]. p. 1–11. Available from: https://en.wikipedia.org/wiki/Newton%27s_law_of_universal_gravitation
29. Questions E, Concepts S. Newton ' s Law of Gravitation. Natl Aeronaut Sp administration [Internet]. :1–9. Available from: https://imagine.gsfc.nasa.gov/educators/programs/swift/classroom/law_grav_guide.html#:~:text=Newton's Law of Gravitation states,Nm2%2Fkg2.
30. Lunar M, Waxing M, Calculating EC, Orbital M, See E, References F, et al. Lunar phase Phases of the Moon Lunar libration. 2022;1–6. Available from: https://en.wikipedia.org/wiki/Lunar_phase
31. What Are the Moon ' s Phases ? NASA Sci [Internet]. Available from:

<https://spaceplace.nasa.gov/moon-phases/en/>

32. Termination MC. Minimize Chain Termination Phases of the Moon – Lunar Phases Get Faster Cleavage of Peptide. Sci notes [Internet]. 2022;1–10. Available from: <https://sciencenotes.org/phases-of-the-moon-lunar-phases/>
33. 11 . 2 : Phases of the Moon and Tides Spring Tides and Neap Tides. Libr texts [Internet]. :101. Available from: [https://geo.libretexts.org/Bookshelves/Oceanography/Oceanography_101_\(Miracosta\)/11%3A_Tides/11.02%3A_Phases_of_the_Moon_and_Tides](https://geo.libretexts.org/Bookshelves/Oceanography/Oceanography_101_(Miracosta)/11%3A_Tides/11.02%3A_Phases_of_the_Moon_and_Tides)
34. Photos C. Tides , and the pull of the moon and sun. Earth sky [Internet]. 2022;1–8. Available from: <https://earthsky.org/earth/tides-and-the-pull-of-the-moon-and-sun/>
35. Murmson BS. The Effects of the Moon Phases on Ocean Tides Full Moon and New Moon Waxing Gibbous and Waning Crescent. 2018;1–6. Available from: <https://sciencing.com/effects-moon-phases-ocean-tides-8435550.html>
36. Taylor BC. When is the Moon ' s Pull on Earth the Strongest ? Effects of the Moon ' s Gravity. sciencing [Internet]. 2018;1–10. Available from: <https://sciencing.com/difference-low-tides-high-tides-7894145.html>
37. Rose A. Lunar powered hair care [Internet]. 2022. p. 7–11. Available from: <https://www.bodyandsoul.com.au/beauty/hair/lunar-powered-hair-care/news-story/4a5b57a94e5e75c5e7cb81a80cf10df2>
38. Tides and Water Levels [Internet]. 1996. Available from: https://oceanservice.noaa.gov/education/tutorial_tides/tides02_cause.html
39. 11 . 3 : The Effects of Elliptical Orbits of Earth and Moon On Tides. Libr texts [Internet]. 101:365. Available from: [https://geo.libretexts.org/Bookshelves/Oceanography/Oceanography_101_\(Miracosta\)/11%3A_Tides/11.03%3A_The_Effects_of_Elliptical_Orbits_of_Earth_and_Moon_On_Tides](https://geo.libretexts.org/Bookshelves/Oceanography/Oceanography_101_(Miracosta)/11%3A_Tides/11.03%3A_The_Effects_of_Elliptical_Orbits_of_Earth_and_Moon_On_Tides)
40. Telescopes B, Projectors BS, Moon NF, Calendar S. How far is the moon from Earth ? 2022;1–16. Available from: <https://www.space.com/18145-how-far-is-the-moon.html>

41. Cutler WB. Lunar and Menstrual Phase Locking. *Am J Obstet Gynecol* [Internet]. 1987;1–4. Available from: <https://www.athenainstitute.com/sciencelinks/lunarandmenst.html>
42. Hoover E, Alhadj M, Flores JL. Physiology , Hair [Internet]. 2022. 1–5 p. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK499948/>
43. Koyama T, Kobayashi K, Hama T, Murakami K, Ogawa R. Standardized Scalp Massage Results in Increased Hair Thickness by Inducing Stretching Forces to Dermal Papilla Cells in the Subcutaneous Tissue. 2016;1–11. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4740347/>
44. Oh JY, Park MA, Kim YC. Peppermint Oil Promotes Hair Growth without Toxic Signs. 2014;30(4):297–304. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4289931/pdf/toxicr-30-297.pdf>
45. Suchonwanit P, Thammarucha S, Leerunyakul K. Minoxidil and its use in hair disorders : a review. 2019;2777–86.
46. Olsen EA, Dunlap FE, Funicella T, Koperski JA, Swinehart JM, Tschen EH, et al. A randomized clinical trial of 5 % topical minoxidil versus 2 % topical minoxidil and placebo in the treatment of androgenetic alopecia in men. 2002;21–2.
47. Gupta AK, Quinlan EM, Venkataraman M, Bamimore MA. Microneedling for Hair Loss. Vol. 21, *Journal of Cosmetic Dermatology*. 2022. p. 108–17.
48. Lee C, Su C, Chiang C, Wu C, Kuan Y. Observation of the Expression of Vascular Endothelial Growth Factor and the Potential Effect of Promoting Hair Growth Treated with Chinese Herbal BeauTop. 2021;1–14.